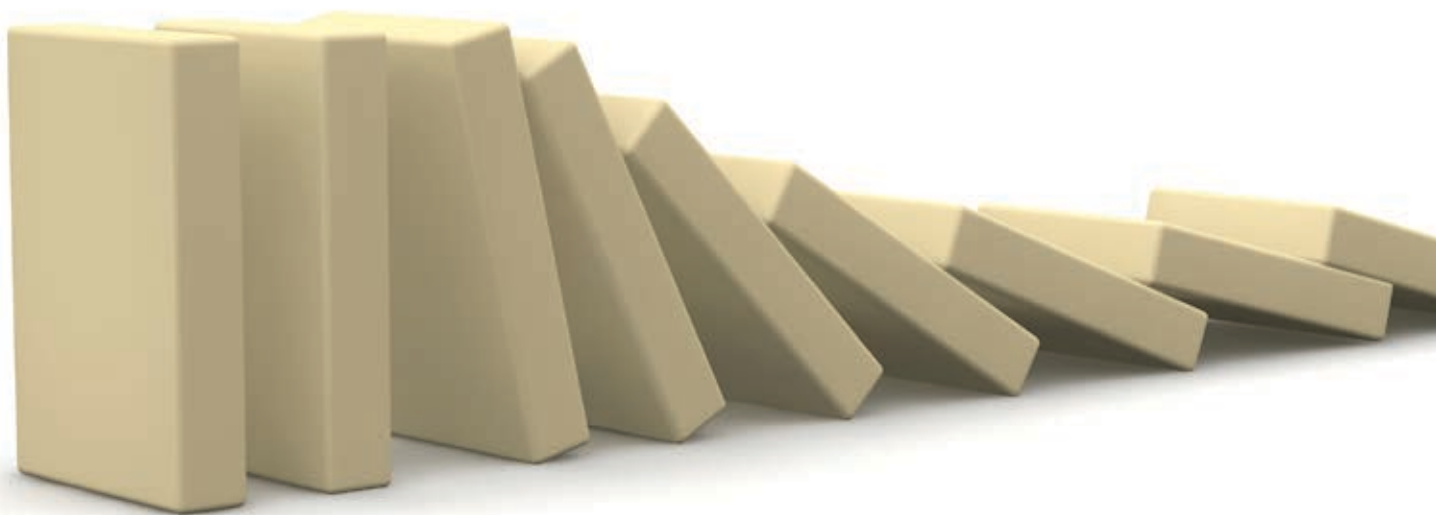


Addressing the risks posed by
systemically important banks
The end of too big to fail?



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Introduction

In the aftermath of the financial crisis, the thorny issue of firms perceived as too big, complex and interconnected to fail was placed at the top of the regulatory reform agenda. The development of policy measures to address the risks posed by systemically important banks has come a long way since then, but there is still a long way to go.

2012 saw significant developments in systemically important bank (SIB) regulation and supervision. Progress was made in several key areas: drafting recovery and resolution plans (RRPs); and in advancing the work on capital, supervision, data and restructuring the banking sector.

Furthermore there is no sign of a slowdown in 2013. In a recent paper¹, the European Banking Authority (EBA) has recommended that 39 major European banking groups meet recovery and resolution requirements by end-2013.

In this paper, we take stock of the progress made to address the risks posed by SIBs and consider what this means for such firms. We conclude by discussing whether the current and proposed regulatory requirements mark the end of 'too big to fail'.

The focus is on European SIBs; however, the paper is set within the international context.

Background to reform

The severity of the financial crisis put a spotlight on the risks posed by large financial institutions in distress. The impact on global financial markets of a large bank failing was highlighted by the disorderly failure of Lehman Brothers, in September 2008, and the ensuing market panic. In order to prevent a further financial system meltdown, many national governments, unable to predict the consequences of individual firms failing, made the difficult decision to bail-out all large financial institutions (mostly banks) that fell into financial difficulty. The bail-outs led to concerns around the moral hazard implications of having firms perceived to be 'too big to fail'.

Globally, both politicians and policy makers agreed that the issue of tackling firms perceived as too big, complex and interconnected to fail should be a regulatory priority. The term SIFI (systemically important financial institution) emerged as the all-encompassing acronym used to describe any firm, from any sector, whose disorderly failure could threaten financial stability².

At the international level, the G20 tasked the Financial Stability Board (FSB) with the development of a multi-pronged policy framework to:

- reduce the likelihood of a SIFI failing;
- enable a failing SIFI to be resolved in an orderly manner with minimum disruption to the financial system;
- prevent the need for taxpayer bail-outs and ensure that any cost burdens associated with government interventions were paid for by financial institutions; and
- increase regulatory focus on macroprudential surveillance, and the development of specific tools to address a build-up of systemic risk in the financial system.

In tandem with the FSB's work, several complementary initiatives were launched at a national and European level, including proposals to restructure the banking sector.

Although the term SIFI is used broadly across financial services sectors, regulatory developments for SIBs are more advanced than in any other sector (such as insurance). This is hardly surprising given that the financial crisis was centred on banking. So far, 28 banks have been officially identified as global SIBs (G-SIBs) by the FSB and have been given solid deadlines for meeting international regulatory requirements for SIFIs.

Identifying a systemically important bank

How do you know a SIB when you see one?

The FSB defines SIFIs as “financial institutions whose distress or disorderly failure, because of their size, complexity and systemic interconnectedness, would cause significant disruption to the wider financial system and economic activity”³.

At the international level, the Basel Committee on Banking Supervision (BCBS) has developed a methodology⁴ for identifying G-SIBs, and a set of principles⁵ to guide national authorities in the identification of domestic systemically important banks (D-SIBs).

G-SIB status is determined using five main criteria: cross-jurisdictional activity; interconnectedness; size; substitutability; and complexity. The methodology is also used to rank a G-SIB’s level of systemic importance relative to other G-SIBs⁶. The list of G-SIBs is reviewed annually, and banks can move in or out of G-SIB classification or be re-classified at a different level of systemic importance. For example, in November 2012, three banks were removed from the G-SIB list and two new banks were added⁷.

Introducing the D-SIB

A D-SIB is a bank whose distress or disorderly failure could have a serious detrimental impact on either the financial system or the real economy within the country in which the bank operates. The BCBS has published a framework for developing a D-SIB assessment methodology. National authorities are expected to:

- Take into consideration size; interconnectedness; substitutability; and complexity (including additional complexities caused by cross-border activity) within the domestic economy;
- produce a D-SIB list, and review the list regularly; and
- publicly disclose D-SIB assessment methodologies.

The relationship between G-SIBs and D-SIBs

Banks can be classified as D-SIBs at the consolidated group level by the bank’s home supervisor, or at the subsidiary or branch⁸ level by host supervisory authorities. In addition, a bank identified as a G-SIB can also be classified as a D-SIB in any of the countries in which the bank has significant operations. However, a bank with large global operations that does not have significant operations in any individual country can be classified as a G-SIB, without being classified as a D-SIB.

Strengthening a systemically important bank's defences

Concern about the risks posed by SIBs has led to a range of policy initiatives to reduce the probability of a SIB failing.

1. Higher capital requirements

Banks identified as G-SIBs will need to hold additional capital⁹ ranging between 1-3.5% of risk weighted assets (RWAs) depending on the G-SIB's deemed level of systemic importance¹⁰. The additional capital must consist of core equity tier one (CET 1); the highest quality capital which includes common stock and retained earnings.

Banks identified as D-SIBs will also have to meet higher requirements in the form of CET 1. The amount of additional capital a D-SIB should hold has been left to the discretion of national regulators. Nevertheless, national authorities are expected to set additional capital requirements that are commensurate with a D-SIB's level of systemic importance (in accordance with the D-SIB assessment methodology). Significantly, the D-SIB capital requirements can exceed the highest G-SIB capital requirements; regulatory authorities will be required to impose the higher of the two requirements in the case where an identified D-SIB is also a G-SIB.

In the EU, a systemic risk buffer (which must consist of CET 1) has been incorporated into the revisions to the Capital Requirements Directive (CRD 4)¹¹. The proposals are consistent with the D-SIB and G-SIB frameworks and allow for broad application of the additional capital requirements. EU Member States have been given the flexibility to impose a buffer of up to 3% to any credit institution or investment firm subject to CRD 4, to reflect additional risk in that country. Member States will also have the option of setting the systemic risk buffer at higher levels, subject to approval from the European Commission (EC).

Additionally, some national regulators have gone beyond what has been proposed at the international level. Thus in Switzerland¹² banks identified as SIBs will be subject to a progressive systemic risk buffer based on the size of the SIB's balance sheet and market share in the Swiss loan and deposit market. The 'Swiss Finish', as it is widely known, will require firms to hold up to 9% additional capital in the form of contingent convertible bonds (CoCos), which convert to equity when the SIB's CET 1 regulatory capital falls below pre-defined levels.

2. Intensive and effective supervision

G-SIBs will also face increasing supervisory scrutiny. In practice, G-SIBs will experience more data requests, more process reviews and a growing number of visits by supervisors. The FSB's recommendations¹³ for intensive and effective SIFI supervision set out the FSB's expectations that supervisors will appropriately monitor the activities of SIFIs and challenge their risk management processes and business strategies. The recommendations include stronger supervisory resources and powers; and higher supervisory expectations for risk management functions, data aggregation capabilities, and internal controls.

The FSB has issued two progress reports¹⁴ on SIFI supervision, which identify several-firm level issues that hinder effective supervision. Obstacles include a lack of progress on data aggregation and risk identification, insufficient risk reporting capabilities, and inadequate IT systems. The inability of senior managers to clearly articulate risk appetite frameworks consistent with corporate strategy is also identified as a serious cause for concern. There is a strong emphasis on corporate governance, particularly with regards to the roles and responsibilities of the Chief Risk Officer (CRO) and the Chief Audit Executive. CROs are expected to have the unwavering support of the CEO and a clear earned stature within the organisation. There is also an expectation that the CRO and Chief Audit Executive will have a "seat at the table"; capacity to challenge senior managers, line managers, business strategy and the firm's budget.

3. Focus on data

The FSB and the BCBS have launched several additional workstreams which aim to address identified impediments to intensive and effective SIFI supervision. The current focus is on data.

G-SIB data template

The FSB is developing a common data template for G-SIBs¹⁵ to ensure G-SIBs' data aggregation capabilities adequately capture all the relevant risks needed for management information system reporting. The template is designed to capture:

1. **Institution to institution** data such as bilateral credit exposures and funding dependencies.
2. **Institution to aggregate** data including credit exposures and funding dependencies from countries, markets, sectors, and in different currencies.
3. **Structural data** and data which regulators may need to assess a G-SIB's systemic importance.
4. **'Passive' and ad hoc** data, which would be provided on a request basis. For example, authorities concerned over a G-SIB's level of risk taking might require more granular data to assess the G-SIB's exposures than the data being produced on an 'active basis'.

The template has been designed to rectify data gaps before and during the financial crisis and captures information on five key risks: concentration risk; market risk; funding risk; contagion/spill-over risk; and sovereign risk. The information captured in the template will be used by microprudential supervisors to enhance firm-level risk assessment and provide macroprudential authorities with more timely and granular information to help detect and thus contain a build-up of systemic risk in the financial system. The data will also feed into the annual review of the G-SIB list (discussed above) and there is an expectation that the information will be used by crisis management groups (CMGs) for resolution planning (explored below).

Risk data principles

The BCBS has finalised a set of principles¹⁶ for effective risk data aggregation and risk reporting. Compliance with the principles will be mandatory for all G-SIBs and the BCBS "strongly" suggests that national supervisors also apply the principles to D-SIBs. The principles cover risk data governance; risk data aggregation capabilities; risk reporting practices; and supervisory review, tools and cooperation. A G-SIB's senior management and board will have accountability in ensuring the G-SIB produces accurate, high quality and timely data. G-SIBs will be required to quantify their risk appetite and to have robust infrastructure, processes and controls in place to monitor credit, market, liquidity and operational risk.

Supervisors will be expected to test G-SIBs' data processes to ensure the processes are sufficiently robust to withstand a range of adverse scenarios including a surge in business volumes, and a potential crisis. Where deficiencies in data aggregation are considered to be serious enough to impede risk management significantly, supervisors will be able to set limits on a firm's ability to take on new risks or expand business operations.

Planning and preparation for a crisis

Preventing market disruption and taxpayer bail-outs.

4. Recovery and resolution frameworks

Recovery and resolution frameworks are designed to enable a failing SIFI to be restored to viability, or resolved partially or entirely, in an orderly manner, with minimum disruption to the financial system or cost to the taxpayer, through advanced planning and direct intervention by resolution authorities.

The FSB's key attributes (KAs)¹⁷ for effective resolution regimes set out a number of requirements for RRP. The KAs seek to increase cross border cooperation between a SIFI's home and host supervisors, improve the internal recovery planning of a SIFI, and ensure that national authorities have the necessary powers and tools to resolve a failing SIFI. The KAs are applicable to all financial institutions deemed globally systemically important. However, only the 28 identified G-SIBs have been given a deadline by the FSB to meet these requirements¹⁸.

In the EU, the KAs will be incorporated into the proposed Recovery and Resolution Directive (RRD)¹⁹. The remit of the RRD is broader than the KAs and will be applicable to all credit institutions²⁰. In addition, the EBA has adopted a formal Recommendation that 39²¹ major cross-border banks develop group recovery plans by end-2013.

Recovery and resolution planning

RRPs include strategic analysis to identify a firm's systemically important functions, and the steps needed to maintain critically important functions under several adverse scenarios. SIBs need to prepare recovery plans and submit detailed information about the firm's group-wide operations to a resolution authority, to enable the supervisor to prepare a resolution plan²².

The **recovery plan** must include a menu of options, including measures to strengthen capital, such as the suspension of dividends and variable remuneration; scenarios to address liquidity pressures; and plans to restructure the firm and sell-off business lines/branches or subsidiaries. The recovery plan must also ensure there are processes in place to enable the timely implementation of the recovery options in a range of stress scenarios.

Firms are required to provide authorities with extensive detail on intra-group exposures, and organisational and operational data to aid **resolution planning**. Resolution authorities will carry out resolvability assessments. If a firm is considered to be unresolvable, resolution authorities can exercise a number of supervisory powers. Powers include imposing exposure limits; instructing a firm to divest certain assets; or requiring a change to the firm's legal or operational structure. The RRD also sets out the 'tools' resolution authorities can use to resolve a failing SIB: sale of business; bridge institution; asset separation; and 'bail-in'²³. Resolution plans should be drawn up to reflect these tools. In addition, SIBs may be required to hold a minimum amount²⁴ of bail-in eligible debt instruments.

Most G-SIBs have completed at least one draft of their recovery plans. However, RRP are still a work in progress. It is likely that RRP will continue to need refinement and adjustment over time as firms and supervisors give further thought to how the execution of the plans will work in practice. Supervisors are also moving away from a standardised approach to RRP, demanding recovery plans that are more tailored to a firm's specific business model and requesting more tailored information for the development of resolution plans.

In a recent update report²⁵, the FSB describes the progress made in implementing RRs for G-SIBs as “encouraging”. Nevertheless, several aspects of the RR process have been identified as requiring improvement, and/or clarity. The FSB has since launched more detailed guidance²⁶ on some of the KAs. Key areas of focus include:

- **Recovery triggers and stress scenarios:** the need for firms to have well-defined quantitative and qualitative recovery triggers and clearly articulated actions and escalation processes for when a trigger has been breached. There is also an emphasis on firms’ risk governance processes.
- **Developing resolution strategies and operational resolution frameworks:** the FSB recognises two key approaches to resolution planning: single point of entry (SPE) and multiple point of entry (MPE). SPE involves the application of resolution powers (including bail-in) at the parent company level. MPE involves the application of resolution powers by two or more resolution authorities to multiple parts of the group. The FSB sets out guidance on the circumstances in which SPE or MPE would be most appropriate for SIFI resolution as well as the agreements and structures required at the organisational level to make each approach work.
- **Identification of critical functions and critical shared services:** the emphasis is on assessing the consequences for the real economy and financial markets if a specific function or service within a G-SIB were to fail. Potential critical functions are assessed as falling into five broad categories: deposit taking; lending; payments, clearing and settlement; wholesale activities; and capital markets activities.

International cooperation and coordination

A G-SIB resolution framework relies on cross-border cooperation and the KAs require firm specific CMGs²⁷ for all G-SIBs. CMGs are expected to share and coordinate information, as well as facilitate firm-specific cross-border cooperation agreements between relevant competent authorities. Cooperation requirements include agreement on each national authority’s roles and responsibilities prior to, and during a crisis. In addition, CMGs act as a forum for collaboration on the development of firm-specific resolution plans.

The decisions made by the CMGs matter to firms. For example, CMGs will be responsible for deciding the resolution strategy for individual firms (such as SPE vs. MPE). Furthermore, the agreements made between national authorities on roles and responsibilities for resolving a G-SIB could have a significant impact on how a G-SIB is supervised.

The RRD proposal sets out similar requirements for relevant EU authorities to establish resolution colleges to agree an approach to resolving cross-border European banking groups²⁸.

Structural reform of the banking sector

Separating retail and investment banking activities and strengthening the defences of large foreign subsidiaries.

5. Separation of retail and investment banking activities

Several countries have introduced or are considering introducing legislation to restructure the banking sector, with the aim of either reducing risk or supporting the swift and effective resolution of banks in distress. There are two main approaches to restructuring the banking sector: 'ring-fencing' and full structural separation of certain banking activities.

Ring-fencing requires the legal separation of certain banking activities from the rest of a banking group's operations. However, all activities can remain within the same banking group. The emphasis varies between jurisdictions, with some ring-fences designed to protect certain activities and others designed to 'cage' activities perceived to be more risky.

The UK Government has recently introduced a Bill to take forward the Independent Commission on Banking's (ICB's) recommendations²⁹ to ring-fence certain retail banking activities such as deposit-taking. The ring-fenced portion of the bank will be subject to more stringent capital requirements to ensure the areas of the bank "which provide vital services to the UK economy are more resilient to shocks"³⁰.

In the EU, the EC is consulting on the High Level Expert Group (HLEG), 'Liikanen' recommendations³¹ to ring-fence "risky trading activities" from the insured deposit and retail payment services arm of a banking group.

The French Government has also launched draft legislation, which will require banks to separate proprietary trading from client transactions. Under the proposals, all proprietary trading activities above threshold limits will need to be moved to a separate dedicated subsidiary.

Meanwhile, the US Volcker Rule³² (part of the Dodd-Frank Act), requires full structural separation of activities perceived to be more "risky" from core banking activities. For example, banking entities which benefit from federal insurance on customer deposits are prohibited from undertaking proprietary trading and investing in, or sponsoring, hedge funds and private equity funds to any significant extent, in any part of the group.

6. Geographical drivers of structural reform

Some countries are introducing legislation which will require foreign bank subsidiaries to restructure their businesses, in order to enable host supervisory authorities to resolve the subsidiary on a standalone basis.

The Dodd-Frank Act sets out Enhanced Prudential Standards³³ for Foreign Banking Organisations (FBOs), which will apply to all FBOs with global operations of greater than \$50 billion and US assets (excluding branches) in excess of \$10 billion. The standards require FBOs to set up a US intermediate holding company (IHC) which will be subject to the same risk-based and leverage capital standards as US banks. Therefore FBOs will be required to hold significant amounts of liquidity and capital in the IHC. In addition IHCs will be required to have a board of directors and will be subject to the same regulatory reporting requirements and supervisory inspections as US banks.

Monitoring and mitigating systemic risk

Beyond the regulation and supervision of individual firms.

7. Reducing interconnectedness in the financial system

Interconnection within the financial system is a key contributor to systemic risk. Interconnection increases the pressure to bail-out a financial institution in order to protect other firms with large exposures to the financial institution from failing. Additionally, when coupled with market opacity, interconnection can lead to other forms of contagion in distressed markets.

In order to address the risks posed by interconnection in the OTC derivative market, the G20 made a commitment that “all standardised OTC derivatives contracts should be... cleared through central counterparties”.

In the EU, clearing requirements are being set through the European Market Infrastructure Regulation (EMIR)³⁴. EMIR also requires derivative transactions to be reported to a trade repository. Trade repositories will publish aggregate derivative trade positions, by class of derivative contract, increasing market transparency.

8. Macroprudential supervision

The financial crisis highlighted the need to develop regulatory oversight of the financial system as a whole. At a national, EU and international level regulatory bodies and committees have been set up with a specific mandate to monitor systemic risk. The work of these bodies is complemented by policy frameworks which aim to provide macroprudential supervisors with the information, powers and tools necessary to ensure the early detection, assessment, and if necessary mitigation of systemic risk.

Several prudential tools which aim to reduce procyclicality in financial markets have been proposed. These include countercyclical capital and liquidity buffers that are ‘switched on’ when markets are thought to be overheating; the buffers could be used to cushion the impact of a slowdown in growth later in the economic cycle, that is, unless the market reaction is such as to pre-empt lower capital or liquidity ratios at such a time. Liquidity buffers could also potentially reduce the likelihood of liquidity hoarding during a crisis and prevent the need for market-destabilising fire sales of assets. The ability to set differential capital requirements or risk-weights on sector-specific exposures is also under consideration as a method of targeting emerging risks. Other possible countercyclical tools include setting maximum leverage ratios or loan to value ratios for a certain market or product which could be tightened during an economic boom and relaxed during a downturn. Again, the effectiveness of the relaxation would depend on the market reaction to such a move.

Some of these tools are currently being incorporated into EU legislation. Most notably, a countercyclical capital buffer has been included in CRD 4. The countercyclical capital buffer will enable national competent authorities to impose additional capital requirements on firms of up to 2.5% of CET 1.

9. Global legal entity identifiers

The FSB is currently working with regulatory authorities and financial institutions to launch a global legal entity identifier (LEI) system. The LEI aims to improve transparency in financial markets, and address weaknesses in the ability of market participants to report market exposures quickly and accurately. The LEI initiative therefore complements other initiatives aimed at monitoring and mitigating systemic risk. Under the LEI system, each legal entity (LE) in a financial services group will be assigned a code associated with a set of data including the LE’s name and address.

What does this mean for systemically important banks?

All banks with large global operations and/or dominant domestic market positions should consider the strategic implications of regulatory requirements aimed at SIBs.

Banks designated as SIBs will be subject to intense, 'hands on' supervision which may lead to reduced autonomy in decision making regarding the SIB's strategy and operational structure. Supervisors will be more inclined to intervene to restrict a SIB's activities, particularly if those activities are perceived as a hindrance to the effective resolution of the SIB or as a potential threat to financial stability. We explore some of the more specific impacts of SIB requirements below.

1. Increased funding costs

The cost of funding for a SIB is increasing, in part as the likelihood of state support recedes. Funding costs are likely to continue to rise, particularly if RRP requirements convince financial markets that a SIB can be resolved without the need for government support, and that haircuts may actually be applied to debt as part of the resolution process.

In order to meet the systemic risk buffer requirements, SIBs have several options: raise new equity; retain earnings; and/or de-leverage to reduce RWAs through shrinking trading activity and reducing lending capacity. The former option may be difficult and expensive in the short-term but its proponents argue that it could potentially lead to lower debt funding costs in the long-run, offsetting some of the negative impacts of bail-in.

Bail-in eligible debt will likely be more costly than similar debt has been in the past because bail-in makes the probability that creditors will bear some of the cost of a bank failure more tangible. The greatest cost impact will be felt by weaker SIBs in general and all SIBs during a market downturn when investors demand higher yields for investing in bail-in eligible debt instruments.

There is currently a lot of uncertainty around the requirements for and implementation of bail-in debt. Therefore it is difficult to predict the precise impact of bail-in requirements, which will depend on a number of factors, including the definition of 'eligible' debt instruments and the amount of bail-in instruments supervisors will require each SIB to issue. Minimum bail-in debt requirements could reduce a SIB's flexibility in deciding its funding structure, thus SIBs will need to think carefully about the design of their bail-in debt. Issuing longer-term debt instruments may be more costly for a SIB due to increased uncertainty about future yields and the likelihood of bail-in occurring. However there is a trade-off; issuing debt with a shorter maturity may be more risky for a SIB, as the debt may need to be reissued during worsening market conditions, or after the bank has announced a bad set of financial results³⁵.

SIBs should not only consider how bail-in debt will be raised and structured, but also how much bail-in debt will cost the SIB in comparison with its peers. Weaker SIBs may need to consider measures to strengthen their capital position, including by deleveraging and de-risking, to make the bank a more attractive prospect for bail-in bondholders. Strengthening capital positions will be particularly important if market participants perceive rates charged on bail-in debt as a wider indication of relative creditworthiness.

2. Changes to operational structure and firm-wide strategy

The development of recovery plans will continue to require a great deal of strategic thinking for SIBs. SIBs should also consider the likely outcome of resolvability assessments in order to pre-empt any changes supervisors might request to a SIB's operational structure and business arrangements.

G-SIBs in particular should also work closely with relevant supervisory authorities to ensure the most appropriate strategy (for example SPE vs. MPE) for resolving the G-SIB is chosen. For G-SIBs and European SIBs, the location of capital within the group will be an important issue. SPE, or 'top-down' resolution, will favour a SIB holding bail-in debt and additional equity capital buffers at the parent level. Conversely, MPE will require SIBs to hold sufficient bail-in debt broadly across the group (the precise location of capital will depend on how the MPE resolution is structured).

In addition requirements to restructure the banking sector, both to restrict trading activities and to reflect geographical factors will have a sizeable impact on the capital structure of affected firms.

RRP requirements will not stand still. Instead, RRP requirements will continue to evolve, as greater thought is given to the feasibility of proposed plans, as financial markets change, and as SIBs shift strategic focus. SIBs must continue to consider how they will address any issues caused by the following in the context of RRP:

- the complexity of business operations;
- geographical distribution and product mix;
- legal entity structure;
- shared intra-group functions; and
- intra-group exposures.

This will be particularly important as requirements to restructure the banking sector begin to come into effect.

Careful thought will need to be given to a SIB's exposure concentrations in a specific market or sector. This is not only important from a recovery and resolution perspective, but also in light of the on-going development of macroprudential tools, and for the work to reduce interconnection within the financial system.

Some firms may conclude that the best way to address the 'systemic' issue is by reference to the BCBS assessment methodology. In other words they will become smaller, simpler, less interconnected, less global and less 'irreplaceable'.

3. Increasing demands on data

For SIBs, having a strong data framework is essential. Data issues are under increasing regulatory and supervisory focus. Inadequate data aggregation and weaknesses in risk reporting and IT systems have been highlighted as an impediment to SIFI supervision and a concern from the perspective of macroprudential surveillance.

The FSB has emphasised the importance of supervisors having access to high quality data on demand. SIBs that produce bad quality, incomplete and inconsistent data and/or miss submission deadlines risk a serious deterioration in their relationship with supervisors. Put simply, supervisors are likely to request more ad-hoc data from SIBs and data requests that appear to take a long time to turn around will undermine the supervisors' confidence in the firm's risk management capabilities. Furthermore, the BCBS risk data principles will enable supervisors to set limits on a SIB's ability to take on new risks, or expand business operations until the SIB addresses deficiencies in data aggregation.

Inadequate data management will also affect the ability of firms to comply with other regulatory requirements such as the ability to produce accurate and adequate RRP. Overall any data-related short-comings are likely to attract further regulatory scrutiny on the adequacy of a SIB's risk management and governance processes.

4. Liquidity issues

RRP requirements, particularly bail-in, may result in an increasing number of investors demanding debt instruments that are secured against a bank's assets and will therefore not be 'bailed in'. SIBs that issue more secured debt will have less manoeuvrability to sell off assets during a period of stress, and have fewer assets available to use as collateral if other financial institutions decide to stop lending on unsecured terms. Liquidity problems could also be compounded by RRP requirements which restrict intra-group funding. In addition, uninsured depositors (such as SMEs and high net worth individuals) will be incentivised to withdraw their cash at the first sign of a SIB getting into financial difficulty. Liquidity issues may also be more pronounced due to certain ring-fencing requirements. In the UK for example, the part of the banking group which is outside the retail ring-fence could experience sizeable liquidity problems as a result of a run on uninsured deposits.

Is this the end of too big to fail?

Having clear and comprehensive RRP will undoubtedly prove helpful for firms that get into financial distress. However, at present there is no conclusive evidence that RRP could always be enacted in a timely fashion during a crisis. Key questions remain:

- **Will recovery plans work in practice?**

If it becomes public knowledge that a SIB is in financial difficulty, market participants may behave in a manner which propels the SIB straight into 'resolution', therefore by-passing the 'recovery' stage.

- **Will supervisors have the capacity to deal with the simultaneous failure of several SIBs?**

Resolving a large SIB will require significant resources which could prove challenging for supervisory authorities.

- **Will internationally agreed resolution plans work in practice?**

National authorities and in particular national governments may well continue to have a strong incentive to employ country-first policies during a crisis.

- **Will legal frameworks be compatible with recovery and resolution requirements?**

Legal insolvency frameworks are not yet aligned with RRP requirements. In addition legal insolvency frameworks deviate considerably between jurisdictions, making cross-border resolution more challenging.

There is also uncertainty around where the demand³⁶ for bail-in debt will come from, how a bail-in will be triggered and executed in practice, and whether proposed safeguards³⁷ will be sufficient to avoid time consuming and disruptive legal challenges from bail-in bondholders.

Market confidence played an important role in the financial crisis. It is therefore essential that all market participants, including bank investors and debt holders, understand the implications of requirements to address the risks posed by SIBs and have confidence that they will work during a crisis.

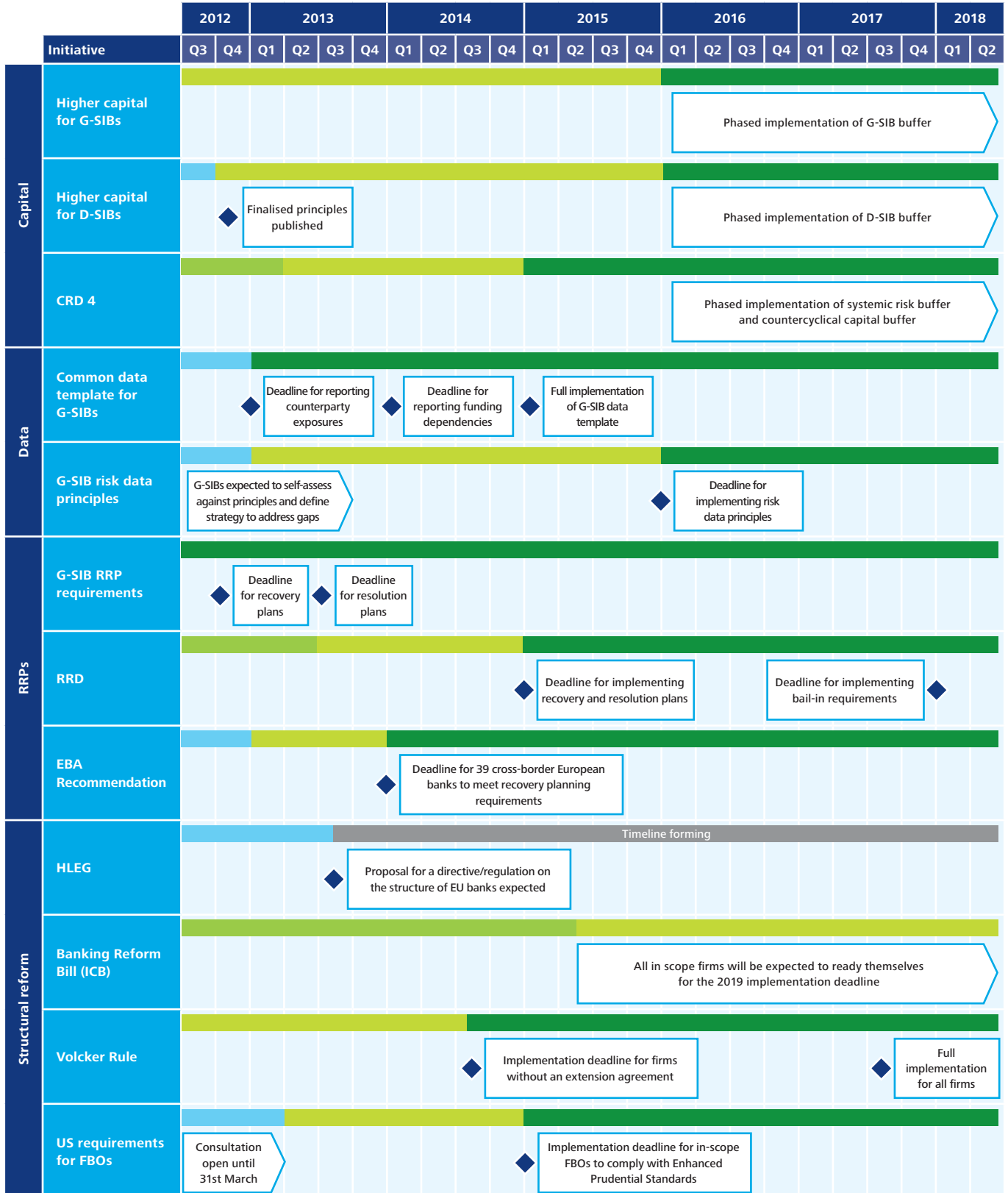
In addition, arguably not enough has been done to address some of the key risks identified in the financial crisis, such as the correlation of risk exposures between financial institutions, and the issue of group think and herding behaviour. In particular, in a crisis it will be important to ensure that regulators do not force all SIBs to undertake the same 'recovery' actions at the same time, and thereby amplify the problem.

Whilst much has been done by regulators, supervisors and individual SIBs to address the issue of 'too big to fail', ultimately we will not know whether supervisors have done enough to resolve a failing SIB in an orderly manner, and without taxpayer bail-outs, until a SIB fails.

Furthermore, in a bid to address the issue of interconnectedness in financial markets, central counterparties (CCPs) are becoming increasingly systemically important. Will CCPs now become so pivotal to financial stability that they will be unable to fail? And if so, what are the potential moral hazard implications? Regulators have begun thinking about recovery and resolution frameworks for CCPs. However, developing appropriate regulatory requirements, to resolve a CCP, is proving to be a considerable challenge.

Therefore, even if the proposed measures are implemented effectively, we are still some way from pronouncing the end of too big to fail.

Timeline to reform



■ Formulation of regulatory initiative
 ■ Legislative process
 ■ Readiness for implementation
 ■ In Force
 ◆ Key milestone

Appendix

1. Navigating the acronym maze

	What is it?	Who is in scope?	Status	What does this mean for firms?
SIFI	Systemically important financial institution	Any firm whose distress or disorderly failure would cause significant disruption to the wider financial system and economic activity.	Any firm identified as a SIFI will be subject to more stringent regulatory requirements, set at either a national or international level.	
G-SIFI	Global systemically important financial institution	Any firm from any sector identified as systemically important by its respective international standard setter. For banks the relevant standard setter is the BCBS.	The G-SIFI club currently includes banks and financial market infrastructure although only banks have been officially named as 'G-SIFIs' at an international level. Several insurance firms may be classified as G-SIFIs in April 2013. In addition analysis is currently underway regarding the systemic importance of other non-banks such as hedge funds.	<ul style="list-style-type: none"> Firms that are in scope will be subject to more stringent regulatory requirements and more intense supervision. Firms out of scope may benefit from reduced costs of regulatory compliance vis-à-vis SIFIs, but will need to consider how expanding their business could impact their own classification.
G-SIB	Global systemically important bank	28 internationally active banks identified using the BCBS assessment methodology.	The list of G-SIBs will be reviewed annually (next review is due Nov 2013). This assessment methodology itself will be reviewed every three years.	
D-SIB	Domestic systemically important bank	Any bank identified as systemically important by a national regulator (including subsidiaries).	The BCBS has developed principles which should be used to assess domestic systemic importance.	

2. The G-SIB assessment methodology

The BCBS G-SIB methodology uses an indicator measurement approach³⁸ which equally weights the five main categories, as outlined in the table below:

Category	Individual Indicator	Weighting
Cross-jurisdictional activity	Cross-jurisdictional claims	10%
	Cross jurisdictional liabilities	10%
Size	Total exposures as defined for use in the Basel III leverage ratio	20%
Interconnectedness	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Wholesale funding ratio	6.67%
Substitutability	Assets under custody	6.67%
	Payments cleared and settled through payment systems	6.67%
	Values of underwritten transactions in debt and equity market	6.67%
Complexity	OTC derivatives notional value	6.67%
	Level 3 assets	6.67%
	Held for trading and available sale value	6.67%

Source: BCBS, "Global systemically important banks: assessment methodology and the additional loss absorbency requirement" (Nov 2011).

3. The list of G-SIBs and additional capital requirements

The BCBS and the FSB identified an initial list of G-SIBs in November 2011, revised one year later. The current number of G-SIBs is 28. The table below includes the list of G-SIBs as at November 2012, each G-SIB's level of systemic importance (as defined by the 'bucket'), and the additional amount of capital each G-SIB bucket will be required to hold:

G-SIB	'Bucket'	Additional capital
Empty	5	3.5%
Citigroup Deutsche Bank HSBC JP Morgan Chase	4	2.5%
Barclays BNP Paribas	3	2%
Bank of America Bank of New York Mellon Credit Suisse Goldman Sachs Mitsubishi UFJ FG Morgan Stanley Royal Bank of Scotland UBS	2	1.5%
Bank of China BBVA Groupe BPCE Group Crédit Agricole ING Bank Mizuho FG Nordea Santander Société Générale Standard Chartered State Street Sumitomo Mitsui FG Unicredit Group Wells Fargo	1	1%

Source: The FSB "Update of group of global systemically important banks" (Nov 2012).

4. The list of 39 major EU cross-border banks

The EBA has adopted a formal Recommendation for the following 39 identified cross-border banks to meet recovery and resolution plans by end-2013.

Bank	Country of domicile
Erste Group Bank Raiffeisen Zentralbank	Austria
Dexia KBC Group NV	Belgium
Bank of Cyprus Cyprus Popular Bank	Cyprus
Danske Bank A/S	Denmark
Bayerische Landesbank Commerzbank Deutsche Bank Deutsche Zentral-Genossenschaftsbank	Germany
Alpha Bank AE Eurobank Ergasias National Bank of Greece Piraeus Bank	Greece
BNP Paribas Group Crédit Agricole Groupe BPCE Société Générale	France
OTP Bank Nyrt.	Hungary
Allied Irish Banks Bank of Ireland	Ireland
Intesa Sanpaolo UniCredit Group	Italy
ABN AMRO Group ING Bank Rabobank Group	Netherlands
DNB Bank ASA	Norway
Banco Comercial Português	Portugal
Banco Bilbao Vizcaya Argentaria Santander	Spain
Nordea Skandinaviska Enskilda Banken Svenska Handelsbanken Swedbank	Sweden
Barclays HSBC Lloyds Banking Group Royal Bank of Scotland	UK

Source: The EBA, "Recommendation on the development of recovery plans" (Jan 2013)

Banks identified as major EU cross-border banks that are also G-SIBs are in bold.

Footnotes

1. EBA, "Recommendation on the development of recovery plans" (Jan 2013).
2. See the appendix, (1) "Navigating the acronym maze", for an overview of the different acronyms relating to systemic importance, which are relevant for SIBs.
3. FSB, "Policy Measures to Address Systemically Important Financial Institutions" (Nov 2011).
4. BCBS, "Global systemically important banks: assessment methodology and the additional loss absorbency requirement" (Nov 2011).
5. BCBS, "A framework for dealing with domestic systemically important banks" (Oct 2012).
6. See appendix, sections (2) and (3) for an overview of the G-SIB assessment methodology and the list of G-SIBs respectively.
7. Dexia, Lloyds Banking Group and Commerzbank were removed from the G-SIB classification and BBVA and Standard Chartered were added to the list.
8. The BCBS states that the "principles were developed to be applied to consolidated groups and subsidiaries. However, national authorities may apply them to branches in their jurisdictions in accordance with their legal and regulatory frameworks".
9. The higher capital requirements will be phased in from January 2016 with full implementation by January 2019. The FSB and the BCBS have stated that the additional capital requirements for each G-SIB will be set following the November 2014 review of the G-SIB list.
10. See the appendix (3) for a full breakdown of the different levels ('buckets') of systemic importance, and associated capital requirements.
11. See the EC webpage on CRD 4.
12. FINMA, "Addressing "Too Big To Fail", The Swiss SIFI Policy" (June 2011).
13. FSB, "Intensity and Effectiveness of SIFI Supervision; Recommendations for enhanced supervision" (Nov 2010).
14. The FSB progress reports: (1) "Intensity and Effectiveness of SIFI Supervision Progress report on implementing the recommendations on enhanced supervision" (Nov 2011), (2) "Increasing the Intensity and Effectiveness of SIFI Supervision Progress Report to the G20 Ministers and Governors" (Nov 2012).
15. See for example the FSB consultation paper on "Understanding Financial Linkages: A Common Data Template for Global Systemically Important Banks" (Oct 2011), The G-SIB data template will be phased in between end-2012 and end-2014.
16. BCBS, "Principles for effective risk data aggregation and risk reporting" (Jan 2013). G-SIBs are expected to fully implement the principles by 1st January 2016. For an overview of the proposals, and what the proposals mean for firms, see our publication, "Risk data and the supervisor, the clock is ticking...".
17. FSB, "Key Attributes of Effective Resolution Regimes for Financial Institutions" (October 2011).
18. The deadline for G-SIBs to meet international recovery and resolution requirements was originally end-2012. However the timeline to complete "operational" resolution plans for G-SIBs has been pushed back to mid-2013. Newly designated G-SIBs will have 12 and 18 months respectively (from Nov 2012) to complete recovery and resolution plans.
19. EC, "EU framework for bank recovery and resolution" (June 2012). For an overview of the proposals, see our publication, "European Requirements on Recovery and Resolution".
20. The RRD includes an article on "simplified obligations" for certain institutions which we expect national authorities to use to exclude a number of smaller banks. However, the flexibility available for national authorities to do so will depend on the details included in EC delegated acts.
21. See appendix (4) for a full break down of the 39 banks by country.
22. In practice, some jurisdictions such as the US require firms to draw up their own resolution plans, which are subject to review and challenge by the Federal Reserve and Federal Deposit Insurance Corporation (FDIC).
23. The bail-in tool will allow resolution authorities to write-down eligible debt instruments or convert eligible debt instruments into equity. The RRD proposal provides significant detail on how bail-in will be structured in the EU, including the liabilities excluded from bail-in.
24. The amount of bail-in eligible debt instruments a SIB should hold has been left to the discretion of national authorities. Under the current RRD proposal, the EBA will review the level of bail-in debt instruments each EU bank has been instructed to hold. Divergences across EU Member States will be reported to the EC and regimes that fall below the benchmark are likely to face pressure to increase bail-in requirements.
25. FSB, "Resolution of Systemically Important Financial Institutions Progress Report" (Nov 2012).

26. FSB, *"Recovery and Resolution Planning: Making the Key Attributes Requirements Operational"* (Nov 2012).
27. Membership of the CMGs will include the supervisory authorities, central banks, resolution authorities, finance ministries and the public authorities responsible for guarantee schemes within the relevant jurisdictions, where significant funding may be required during resolution.
28. The RRD also specifies that firms with a parent company registered outside the EU that have two or more subsidiaries established in the EU will need to set up a European resolution college unless suitable equivalence agreements can be reached with the firm's relevant national authority(ies).
29. See the HM Treasury webpage on the ICB recommendations.
30. HMT, *"Banking reform: delivering stability and supporting a sustainable economy"* (June 2012).
31. Erkki Liikanen, *"High-level Expert Group on reforming the structure of the EU banking sector"* (Oct 2012).
32. See the US Commodity and Futures Trading Commission webpage on the Volcker Rule.
33. Federal Reserve Board, *"Proposed rules to strengthen the oversight of U.S. operations of foreign banks"* (Dec 2012).
34. See the *Official Journal of the European Union* entry for EMIR, published July 2012.
35. Funding decisions will need to be considered with reference to several additional regulatory initiatives. For example, the CRD 4 liquidity coverage ratio and stable funding ratio will penalise and potentially place limits on the amount of short-term debt a bank can issue.
36. For example, some institutional investors are not allowed to invest in debt that can convert into equity, similarly many managers of fixed income portfolios may be put off or constrained by their mandate from investing in debt instruments that can convert into equity. Regulators and supervisors are also likely to place restrictions on the amount of bail-in eligible debt that can be held within the financial system itself, particularly by banks.
37. For example, the RRD contains a safeguard article which states that creditors should receive "at least as much as what they would have received if the institution had been wound up under normal insolvency proceedings". In practice, where a resolution authority has triggered bail-in and written down or converted bonds into equity, a valuation of the affected firm will be conducted by an independent third party. Bondholders and shareholders deemed to have received less than they would have received under normal insolvency proceedings would then be paid the difference by the relevant resolution authority.
38. For each bank, the score for a particular indicator is calculated by dividing the individual bank's total by the aggregate amount summed across all banks in the sample. The score is then weighted by indicator weighting and summed, with the total for each category normalised to one. Therefore the maximum score, which would occur in a one bank world, would be five.

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