Recovery and Resolution Planning:

Making the Key Attributes Requirements Operational

Consultative Document

November 2012

Introduction

At the Cannes Summit in November 2011, the G20 Leaders endorsed the *Key Attributes of Effective Resolution Regimes for Financial Institutions* ('the Key Attributes') as the international standard for resolution regimes, following a public consultation process.[1] The *Key Attributes* call on jurisdictions, among other things, to put in place an on-going recovery and resolution planning process to reduce the potential for failure and promote resolvability as part of the overall supervisory process. Such a planning process is required for all global systemically important financial institutions (G-SIFIs) and for any other firm assessed by national authorities as potentially having an impact on financial stability in the event of its failure.[2]

Reforms are now underway in many jurisdictions to align national resolution regimes and institutional frameworks more closely with the *Key Attributes*. Recognising the importance of ensuring that no financial institution is 'too big to fail', particular focus is being given to the effective implementation and application of those attributes that are particularly relevant for G-SIFIs. The authorities responsible for the supervision and resolution of G-SIFIs are required to develop resolution strategies and plans in line with the *Key Attributes*. They are also required to conduct resolvability assessments and prepare institution-specific cross-border cooperation agreements (COAGs).

Because the list of G-SIFIs that was published by the FSB in November 2011 contains only banking groups, priority was given to issues emerging in the implementation of the requirements for recovery and resolution plans by these banking groups. Banking groups that are G-SIFIs are therefore the main focus of this consultation document. However, many of the concepts are generally applicable to any banking group, particularly those, in addition to G-SIFIs, that are assessed by national authorities as potentially having an impact on financial stability in the event of failure. It is also recognised that some of the issues (e.g., the identification of critical functions or critical services by a G-SIFI) may relate to activities performed by non-bank entities of a G-SIFI, e.g., an investment firm or broker-dealer. In such cases, relevant concepts are extended to the non-bank entities. Further work on the specific features of recovery and resolution of financial market infrastructures (FMIs) is also being carried out by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO),[3] and the International Association of Insurance Supervisors (IAIS) is undertaking work on the application of the *Key Attributes* to insurers, including any that might be designated as global systemically important insurers (G-SIIs), after which the need for guidance on the implementation of recovery and resolution planning requirements will be considered.

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[1] See FSB (2011), *Key Attributes of Effective Resolution Regimes for Financial Institutions*, http://www.financialstabilityboard.org/publications/r_111104cc.pdf and in particular Annex III 'Essential elements of recovery and resolution plans'.

[2] For the list of G-SIFIs published by the FSB in November 2011 see http://www.financialstabilityboard.org/publications/r_111104bb.pdf

[3] See the CPSS-IOSCO consultative paper on FMI recovery and resolution, published in July 2012: http://www.bis.org/publ/cpss103.pdf and http://www.iosco.org/library/pubdocs/pdf/IOSCOPD388.pdf.

Early in 2012 the FSB established a timetable giving priority to work on the recovery and resolution planning requirements particularly relevant for G-SIFIs. Considerable progress has been made, guided by the Crisis Management Groups (CMGs) which are now established for almost all G-SIFIs and comprise the home and key host authorities in relevant jurisdictions. The focus in many CMGs was initially on reviewing the G-SIFI's recovery plan, followed by work on developing a clearly articulated, high level 'resolution strategy'. Future work will involve the preparation of an operational resolution plan, setting out the technical details for implementing the strategy, and the finalisation of COAGs.

As this work on recovery plans and resolution strategies progressed, it was recognised that certain aspects of the requirements would benefit from deeper examination. The lessons learned from the work already undertaken and that further examinations might assist those CMGs at earlier stages of the recovery and resolution planning process for G-SIFIs and help to promote consistency in their approaches, where appropriate. Accordingly, that work has been documented in the form of draft guidance to CMGs on the following topics:

1) **Recovery Triggers and Stress Scenarios (Annex 1) -** The proposed guidance focuses on the nature of stress scenarios and triggers for recovery actions.
2) **Developing Resolution Strategies and Operational Resolution Plans (Annex 2) -** This proposed guidance sets out the key elements that may be included in resolution strategies and plans. It draws on two stylised approaches to resolution: a 'single point of entry' approach by which group resolution takes place primarily through action by the home authority mainly at the level of the parent or holding company; and a 'multiple point of entry' approach whereby resolution actions are taken by multiple authorities along national, regional or functional lines. The guidance is not intended to be prescriptive as to one approach or the other. Resolution authorities will need to adapt the strategies and plans to fit individual G-SIFIs and, in practice, some combination of approaches is likely.
3) **Identification of Critical Functions and Critical Shared Services (Annex 3)** - The proposed guidance provides a framework for the identification of the critical functions and shared services that would need to be continued in resolution for reasons of systemic stability with the objective of assisting convergence of approaches between CMGs.

The guidance is aimed at regulators, supervisors and resolution authorities, and especially those that participate in CMGs. However, it is also likely to be of interest to G-SIFIs and other firms for which recovery and resolution planning is required. The guidance is therefore being published for consultation and feedback from the wider financial community is welcomed.

Questions for Public Consultation

In considering the three topics set out in this consultative document, respondents are asked to keep in mind that recovery and resolution planning and assessment processes are iterative in nature and will likely require further refinement and adjustment over time as more experience is gained and more issues are identified for deeper examination. The following questions for consultation have been posed against this background.

The FSB invites comment on the draft guidance and the questions set out below by **Friday, 7 December 2012**. Responses should be sent to fsb@bis.org. Responses will be published on the FSB's website unless respondents expressly request otherwise.

Guidance on Recovery Triggers and Stress Scenarios (Annex 1)

1. *Does Annex 1 appropriately identify key emerging practices regarding recovery triggers and stress scenarios? What additional triggers of an institution-specific or general nature may be useful?*
2. *Are there certain quantitative recovery triggers that are likely to be more effective than others across different types of financial institutions?*
3. *What kind of qualitative recovery triggers are likely to be most helpful to decision makers within the banking group?*
4. *How can financial institutions achieve the goal of early and effective internal triggers, while avoiding negative market reaction to recovery actions taken?*
5. *Are there certain triggers that are more suitable as early warning indicators for pre-emptive recovery actions versus trigger events that are more suitable for particular recovery actions?*
6. *Are there any other issues in relation to the implementation of the Key Attributes requirements for recovery planning that it would be helpful for the FSB to clarify in further guidance?*

Guidance on Developing Resolution Strategies and Operational Resolution Plans (Annex 2)

7. *Does Annex 2 adequately capture the key elements of a resolution strategy and operational resolution plan? If not, what aspects are missing or need to be changed?*
8. *What are potential obstacles to the effective implementation of either the 'multiple point of entry' (MPE) or 'single point of entry' (SPE) approaches that could arise from national legal frameworks (e.g., insolvency law)? How could they be addressed?*
9. *What are the implications of the MPE and SPE approaches for the way financial institutions are structured, and what are the likely benefits and costs of any consequential changes in structure?*
10. *Does the Guidance adequately draw out the key commonalities and differences between the MPE and SPE approaches to resolution?*
11. *Does the Guidance adequately accommodate the needs and perspectives of host authorities that are not members of the CMGs for G-SIFIs, especially in those jurisdictions where a G-SIFI may be systemic?*
12. *Are there any additional issues in relation to the development of resolution strategies and plans that it would be helpful for the FSB to clarify in further guidance?*

Guidance on Identification of Critical Functions and Critical Shared Services (Annex 3)

13. *Is the two-part definition of 'critical' and the distinction between 'critical functions' and 'critical shared services' a useful taxonomy?*
14. *Is the framework for determining 'critical functions' appropriate? If not, what aspects are missing or need to be changed?*
15. *Do the five broad categories of activities outlined in the Appendix - that is, deposit taking, lending, payments, clearing and settlement, wholesale activities and capital market activities - cover all relevant and potentially critical G-SIFI activities? What additional categories of activities should be added?*
16. *Is the framework flexible enough to cover the different types of business undertaken by G-SIFIs?*
17. *Is the framework flexible enough to take account of the external environment in which failure is occurring, for example, an idiosyncratic event or in the context of more severe distress in the financial system?*
18. *Is the definition and framework for determining 'critical shared services' appropriate? If not, what aspects are missing or need to be changed?*
19. *Are there any other issues in relation to the identification of critical functions and critical shared services that it would be helpful for the FSB to clarify in further guidance?*

Annex 1

Guidance on Recovery Triggers and Stress Scenarios

Introduction

The *Key Attributes* (KA 11.5) state that jurisdictions should require that robust and credible recovery plans are in place for all G-SIFIs and for any other firm assessed by its home authority as potentially having an impact on financial stability in the event of its failure. Recovery plans identify options to restore financial strength and viability when a firm comes under severe stress and should include:

- credible options to cope with a wide range of scenarios including both idiosyncratic and market wide stress;
- scenarios that address capital shortfalls and liquidity pressures; and
- processes to ensure timely implementation of recovery options in a range of stress situations.

One of the essential elements of recovery plans is that they should define clear backstops and escalation procedures, identifying the criteria (both quantitative and qualitative) that would trigger implementation of the plan (or individual measures in the plan) by the banking group. Such triggers should be designed to prevent undue delays in the implementation of recovery measures.

With a few exceptions, the requirements for banking groups to maintain recovery plans which jurisdictions are putting in place are set out in supervisory guidance. In relation to the stress scenarios included in these plans, the general emerging practice, particularly for G-SIFIs, is for firms to be required to develop their own stress scenarios. They are also generally instructed to define the parameters of stress underlying their recovery plans.

This Guidance focuses on two specific aspects of recovery plans, drawing on emerging practices by G-SIFIs in these areas:

1. the design and nature of triggers, including the use of ‘hard’ (automatic invocation of recovery plans) vs. ‘soft’ (prompting recovery actions in discussion with supervisors and resolution authorities), firm reactions to breached triggers, and supervisor and resolution authority engagement following breached triggers; and
2. the severity of the hypothetical stress scenarios and the design of stress scenarios more generally.

The Guidance is aimed at regulators, supervisors and resolution authorities, especially those that participate in CMGs for G-SIFIs.[4] It should benefit CMGs as they work toward implementing the G-SIFI requirements, while also supporting individual authorities seeking

[4] Given the list of G-SIFIs published by the FSB in November 2011 contains only banking groups, the focus of this consultation document is on banking groups.

to build on initial recovery plan iterations. The observations and guidance herein are specific to triggers and stress scenarios only, and this Guidance should not be interpreted to mean that triggers and stress scenarios are the most important elements of recovery planning. The Guidance has been drawn up on the basis of responses, by national authorities that are home to a G-SIFI, to a survey of emerging practices in FSB member jurisdictions that participate in CMGs for G-SIFIs, where the CMG existed at May 2012.

1. Quantitative and qualitative triggers

G-SIFIs use both quantitative and qualitative triggers in their recovery plans. While the number of triggers is usually between three and seven, the actual number varies by G-SIFI and the requirements set out by its supervisor. The triggers are predominantly quantitative and are focused on firm-specific liquidity and capital measures.

The quantitative triggers often focus on the extent or speed of change in different elements such as:

- ratings downgrades;
- revenue reports or P&L (or components of these);
- credit risk limits;
- equity ratios;
- per cent renewal of wholesale financing;
- withdrawal of deposits and other funding;
- increased collateral requirements;
- rise in public debt;
- GDP forecasts;
- three-month LIBOR; and
- senior debt spreads.

Qualitative triggers are also an important component, though the use of such triggers in recovery plans is currently much less widespread than quantitative triggers. An example of a qualitative trigger is one based on counterparty risk, where different indicators are monitored to signal a potential counterparty risk event. The indicators could include, in respect of the firm: requests from counterparties for early redemption of liabilities; difficulties in issuing liabilities at current market rates; an unexpected loss of senior management; and adverse court rulings.

G-SIFIs generally view triggers as a pre-identified point in time at which the firm will notify senior management and its board, and its supervisory authority, that a triggering event has occurred, in order to develop and implement a discretionary response in accordance with the specifics of the situation. Early warning indicators are often used to signal negative trends and initiate action prior to a potential breach of an identified trigger point.

Some G-SIFIs do not identify triggers for the specific purpose of recovery planning, but rather use only triggers existing in the firm's current risk management framework, or early warning indicators, which are part of the firm's internal risk management processes.

Triggers are generally not aligned with specific compulsory actions. A breach of a trigger will typically require attention by senior management or the Board so that an appropriate response can be made on a case-by-case basis.

Triggers for recovery planning are (or should be) incorporated into the firms' overall risk management frameworks. Recovery triggers are (or should be) at minimum aligned with existing liquidity or capital contingency plan triggers (but should not be limited to such triggers) as well as aligned with the firm's risk appetite framework. As such they should be subject to appropriate risk governance processes in the firm, including being subject to review by the Board. They should also be monitored and reviewed by relevant supervisors as part of their general supervisory approach.

2. Stress scenarios

G-SIFIs typically use two to four stress scenarios for recovery planning purposes. G-SIFIs employ both systemic and idiosyncratic stress scenarios, and in many cases a combination of the two scenarios (usually based on the same assumptions in the individual scenarios). G-SIFIs have tended to include a wide range of elements within these various stress scenarios. The number of scenarios generally depends on the individual G-SIFI and the guidance of the relevant supervisory authority.

Many G-SIFIs have developed at least one systemic or market-wide scenario and at least one idiosyncratic or firm-specific scenario. Some G-SIFIs have developed scenarios that combine a systemic and idiosyncratic situation, as well as scenarios for both slow-moving and fast-moving financial crises. Scenarios range in severity and typically include a number of components. The following elements are frequently used by G-SIFIs as components of their stress scenarios:

- significant capital and liquidity impacts;
- severe losses through a rogue trader;
- rating downgrades;
- a Euro or US dollar crisis;
- GDP growth rates;
- loss of goodwill;
- exodus of talent;
- significant deposit withdrawal or runoff;
- collapse of global financial markets;
- currency rates;
- commodity prices;

- bank failures;
- fraud; and
- reputational crises.

It may be useful for a firm to combine market-wide (systemic) stress scenario with more specific macroeconomic indicators thereby allowing it to estimate and model the likely impacts upon its income statement, balance sheet, Tier 1 risk-based capital, regulatory Tier 1 common equity, economic capital, and material lines of business.

Some G-SIFIs also perform reverse stress testing. Reverse stress testing assumes the failure of the business model and identifies circumstances in which this may occur, rather than testing for outcomes arising from changes in circumstances of different likelihoods. Reverse stress tests can be seen as a starting point for developing scenarios to test the effectiveness of the menu of recovery options.

3. General guidance

CMGs and national authorities should consider the following as they work with G-SIFIs to develop robust recovery plans and national authorities set their expectations for such plans.

- Well-defined quantitative triggers are important, but firms should not rely solely on quantitative triggers to initiate recovery actions. In addition to quantitative triggers, senior management within firms should incorporate *qualitative* triggers in their consideration of whether a recovery response is necessary and, if so, what kind of recovery response would be appropriate. Greater inclusion of firm-specific qualitative metrics allows a firm's decision makers to exercise discretion on a case-by-case basis.
- Supervisors should ensure that firms are as clear as possible about what actions should occur when triggers are breached. There should be the expectation that the breach of a trigger causes a predetermined escalation and information process up to the senior management level within the firm. Firms should continue to separate their recovery triggers from automatic, compulsory reactions in order to provide decision makers with flexibility to develop a discretionary response in accordance with the specifics of the situation. Conversely, automatic, compulsory recovery responses to breached triggers could potentially lead to firms having to unnecessarily disclose when they have entered into the recovery phase, which could be counterproductive in a stress scenario. Early indicator warnings prior to an actual breach of a trigger also may be useful for alerting firm management to emerging signs of distress.
- Supervisors should ensure that firms provide supervisors and resolution authorities detailed information about the escalation process to senior management or board of directors when triggers are breached, as well as information about the decision making process once these individuals have been informed.
- Supervisors should ensure that firms promptly communicate with supervisory authorities (and resolution authorities where appropriate) when the firm experiences high levels of stress or if triggers are breached.

- Firms along with their supervisory and resolution authorities should ensure that triggers are calibrated so that they provide sufficiently early warning to allow the firm to take corrective action and for the resolution authority to begin appropriate contingency planning. Firms should provide supervisors and resolution authorities with an explanation of how the trigger calibrations were determined, as well as an analysis that demonstrates that the triggers would be breached early enough to be effective. The aim of triggers in recovery planning is, however, to enable banks to restore financial strength and viability through their own efforts, i.e., *before* the conditions are met for regulatory authorities to enforce recovery measures. Firms also should ensure that its triggers are not linked to inherently lagging metrics, no matter how the triggers are calibrated.
- Supervisors should ensure that firms use an appropriate number of market-wide (systemic) stress scenarios and firm-specific (idiosyncratic) stress scenarios to test the robustness of their recovery plans and to assess which options would be effective in a range of stress situations. G-SIFIs are large enough to allow for multi-dimensional analyses of key scenarios that could occur and affect their structure, so more than one of each scenario would be useful, as well as a scenario that combines both systemic and idiosyncratic situations. These scenarios should address capital shortfalls and liquidity pressures, and be severe enough to be useful in establishing triggers, estimating impacts of adverse situations, and contemplating responses to remediate both slow-moving and fast-moving adverse situations. Firms should include a range of credible options to be flexible enough to be effective in a variety of idiosyncratic and market-wide stress circumstances.
- Supervisors should encourage firms to identify, assess and regularly update the scenarios most likely to cause their business model to become non-viable or to fail. Authorities should see an inherent compatibility between triggers and on-going risk management and fully expect the firms to incorporate the triggers into their global risk monitoring frameworks accordingly.
- Reverse stress testing can be useful for developing effective stress scenarios that are not identified through ordinary stress tests. The purpose of the reverse stress-test is to identify and consider scenarios that would lead to a firm's business model becoming non-viable. However, scenarios used for recovery planning should be only "near-default" (and not a "default" or resolution scenario as used in reverse stress-testing). In the case of scenarios used for reverse stress-testing, the business model has already failed and recovery measures would not be effective. However, the aim of recovery planning is to describe options to restore financial strength and viability when the firm comes under severe stress. Therefore reverse stress tests should only be seen as a starting point for developing scenarios to test the effectiveness of firm's menu of recovery options.
- Supervisors should require that the use of triggers and stress scenarios in recovery plans are subject to appropriate risk governance processes in the firm, including review by the Board. They should also be monitored and reviewed by relevant supervisor authorities as part of the general supervisory approach.

Annex 2

Guidance on Developing Resolution Strategies and Operational Resolution Plans

Introduction

This Guidance draws on experience gained in CMGs to set out the key elements that might be included in effective resolution strategies and plans for G-SIFIs.[5] It is aimed at national authorities and should assist them in drawing up, developing and maintaining their strategies and plans. It is not intended to be prescriptive, as resolution authorities will need to adapt strategies and plans to fit individual G-SIFIs; nor is it intended to be a complete documentation of everything that they may need to consider. Rather, it aims to capture the main issues that authorities should consider in preparing resolution strategies and plans.

This Guidance complements the guidance set out in Annex III of the *Key Attributes* (Essential Elements of Recovery and Resolution Plans). Authorities will need to rely on firms to supply up-to-date and accurate information and analysis to support the authorities' resolution planning. Such requirements are not within the scope of this Guidance. While this Guidance should provide firms with an indication of how authorities may use the material that they may be required to supply, it is not binding on authorities.

Implementation of all G-SIFI resolution requirements, including resolution strategies and operational plans, will be reviewed through regular resolvability assessments conducted by the resolution authorities and CMGs and through a resolvability assessment process for G-SIFIs that the FSB expects to launch in 2013. The process should ensure adequate and consistent reporting on the implementation of all G-SIFI resolution requirements across institutions.

5 See footnote 4.

Overview

Resolution strategies and plans set out the approach to resolution that is likely to be adopted should the need arise, but they do not prescribe the precise course of action that the authorities will pursue. They do not preclude the development of fall-back options, given the need to consider the circumstances, including the overall state of the financial system, at the time of a resolution.

- **Resolution strategies** set out the key elements of the proposed approach to resolution. Effective resolution strategies may involve the use of one or more of the resolution powers, as outlined in *Key Attribute 3*, to recapitalise, restructure, transfer or wind down a firm's business or parts of it, with the aim of maintaining systemic stability and protecting critical functions without exposing taxpayers to losses.
- **Operational resolution plans** provide more specific detail regarding entities to which powers are to be applied by one or more national resolution authorities; the conditions under which the plan might be implemented; and arrangements for providing funding to the firm during and immediately after the resolution as well as the actions needed to implement the resolution strategy. These cover, for example: carrying out valuations; appointing advisors; dealing with payment systems and other FMIs; information and data requirements; and communication to stakeholders and the wider public. Importantly, they should include clear provision for the post-resolution restructuring and restoration to viability of those parts of the business which are to be continued, and orderly wind-down of those (if any) which are not to be continued.
- **Firm-specific cross-border cooperation agreements (COAGs)** should be put in place to guide the activities of CMGs in planning, coordinating and implementing resolutions. In addition to providing a general framework for sharing information in CMGs, COAGs need to relate directly to the resolution strategies and plans, incorporating commitments of home and key host authorities[6] to cooperate to implement a resolution strategy and setting out the process for taking decisions in a timely fashion. Authorities may enter into bilateral agreements that may complement firm-specific COAGs (See *Key Attributes* Annex I).

Resolution strategies and operational plans, and COAGs, will need to be maintained as living documents which are improved and updated over time. In particular, they will need to be developed and amended to take account of changing circumstances, which may include changes in: the needs of the real economy; financial markets; firm's organisation and structures; and in national resolution powers and funding arrangements.

Resolution planning in CMGs has generally coalesced around two stylised approaches.

[6] Key host authorities are those host authorities that are members of the CMG. The FSB is undertaking further work on how home jurisdictions should coordinate with relevant authorities in other jurisdictions that are not members of the CMG, but where the local entity is deemed by the host to be systemic.

- **Single point of entry (SPE)** involves the application of resolution powers at the top holding or parent company level[7] by a single resolution authority – most probably in the jurisdiction responsible for the global consolidated supervision of a group. The assets and operations of particular subsidiaries are preserved on a going concern basis, avoiding the need to apply resolution at a lower level within the group. Host authorities may need simultaneously to exercise powers to support the resolution led by the home authorities, for example to bail-in intra-group debt claims (as set out in Section 4.5 below). But they would only bail-in external creditors or transfer assets, liabilities and business of local subsidiaries if necessary to support a resolution action taken by the home authorities.
- **Multiple point of entry (MPE)** involves the application of resolution powers by two or more resolution authorities to multiple parts of the group (ideally simultaneously), including strategies in which a group is broken up into two or more separate parts. While the resolution of these parts would be under the direction or control of two or more national authorities, the home authority should play a role in ensuring that the resolution is coordinated, given the complexities and potential interdependencies (e.g., to ensure that all relevant authorities and third parties are informed of proposed actions). The group could be split on a national or regional basis, along functional lines, or some combination of each. The powers applied to the separate parts need not be the same and could include different options being applied at different times across the group, such as bail-in within resolution, use of a bridge entity, transfer of business or wind-down.

Selection of either the SPE or MPE strategy will depend upon the circumstances of each case. As detailed in Section 1 below, the efficacy of a SPE strategy may depend upon the G-SIFI's corporate organisation and funding structure. Additionally, a combination of SPE and MPE approaches may be appropriate in some circumstances. For example, where a G-SIFI has a specific bloc of non-viable operating subsidiaries, it may be appropriate to use the MPE approach to carve out that non-viable bloc from the larger group, leaving the larger group to be resolved with the SPE approach.

Making a SPE strategy effective may require, amongst other things:

- intra-group arrangements to ensure that losses incurred by subsidiaries are assumed by the holding company;
- sufficient loss absorbing capacity to be available at the holding company level to help ensure that the surviving parts of the group are solvent and viable;
- sufficient certainty on the part of host authorities that the home authorities would allow resources generated by a recapitalisation at holding company level or made available from other sources to be down-streamed to subsidiaries;[8] and

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[7] In this document, references to a holding company include a parent operating company, recognising that a SPE resolution of the latter entails additional challenges, which should be considered in the operational resolution plan.

[8] Depending on national legal frameworks, arrangements that could contribute to supporting a sufficient level of certainty for host authorities that funds will be down-streamed include: statutory requirements for a holding company to support

- clarity as regards the legal, regulatory, accounting and tax implications of arrangements for the holding company to assume losses of operating subsidiaries, and to down-stream resources generated through bail-in at holding company level to subsidiaries.

Making a MPE strategy effective may require, amongst other things:

- that the group could be divided into two or more separate parts without a significant cessation of critical functions; and
- a degree of legal, financial and operational separation within the group, which may require changes to the way groups are structured, or robust service level agreements to ensure the continuity of any critical shared services across entities subject to resolution at different points of entry.

Although it is not possible to prescribe in advance the precise course of action to be pursued in a particular resolution, some of the pre-conditions for successfully executing a SPE strategy differ from those for successfully executing a MPE strategy. Making G-SIFIs comply with *both* sets of pre-conditions could be very difficult and costly, although if a way were found to do this successfully, it would allow for greater flexibility.

The *Key Attributes* require authorities to conduct resolvability assessments, which will consider whether resolution strategies and plans meet the stated objectives of protecting systemic stability and protecting critical functions without exposing public funds to loss; and whether their implementation is feasible and credible. The results of such assessments will inform further changes that authorities and firms may need to make to ensure that all systemically important financial institutions are resolvable.

1. Pre-conditions

For any resolution strategy and plan to be effective, certain conditions need to be in place. They include features of the group's internal organisation and cooperation agreements amongst authorities. This section provides an overview of those conditions.

1.1 SPE approach

For a SPE approach to work there must be sufficient loss absorbing capacity available at the holding company to absorb losses sustained in operational subsidiaries. This may require that the holding company issues the bulk of external debt to the market and down-streams the funds raised to subsidiaries. In turn, this may require that the holding company's intra-group debt claims on its subsidiaries are legally subordinated to the claims of external creditors on subsidiaries, to ensure that intra-group claims bear losses (by being written down or converted into equity) before those of external creditors in order to ensure that the group is not broken

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subsidiaries (such as 'source of strength' rules); guarantees by the holding company; subordination of holding company claims; and cases where subsidiaries are incorporated as limited liability companies.

up.[9] For the SPE approach to be used, the failure of a significant subsidiary anywhere within the group structure would generally need to trigger resolution at the top parent level, whether due to correlated triggering events, loss of liquidity, or regulatory action. Where this and other preconditions for SPE are not satisfied, the SPE approach may not be possible.

In order to determine the suitability of the SPE approach and for this purpose the loss-absorbing capacity of the holding company; and the powers to be used in the strategy (e.g., bail-in within resolution, bridge institution, transfer, wind-down), it is critical to identify the following information for the holding company and material subsidiaries:

- all outstanding equity interests, whether preferred or common shares;
- all potential contingent liabilities (e.g., litigation and guarantees) and instruments that could be converted into equity or written down;
- all senior, subordinated and intra-group debt instruments, and the total amount of debt outstanding;
- all secured creditors, the amount of their debt, the collateral that secures repayment, the location of that collateral, and the cross-default provisions that are tied to the holding company's entry into resolution proceedings; and
- the governing jurisdiction for liabilities in the scope of bail-in within resolution (e.g., the jurisdiction governing relevant debt contracts).

1.2 MPE approach

For the MPE approach to be effective, it must be possible to separate the banking group into two or more separate entities or blocs of subsidiaries. From the perspective of the firm's organisation, the following pre-conditions are likely to be required:

- **Legal form**: Businesses are organised in distinct subsidiaries operating in the different jurisdictions of the group. Foreign branches, if any, should generally not be material (in terms of size, funding role, provider of critical functions) as these need to be able to be resolved as part of the legal entity to which they belong and with little impact.[10] The legal structure is generally straightforward.
- **Governance**: Although policies may be defined at the G-SIFI's corporate headquarters, they are implemented at the local level with adequate resources in the subsidiaries – including a separate, independent Board and management and other local internal controls, which are also responsible to the local supervisory authorities.
- **Funding**: Each subsidiary (or regional bloc) is responsible for covering its individual needs in the markets and accordingly is likely to need its own rating. Any intra-group

[9] In a situation in which both the holding company and its operating subsidiary are insolvent and funds have only been down-streamed from the parent to the subsidiary in the form of capital, the holding company external creditors' claims are structurally sub-ordinated to those on the operating subsidiary company. In a structure in which debt is down-streamed from holding company to subsidiary, there needs to be a mechanism to ensure that this debt bears losses first. This need could be addressed through a contractual sub-ordination of the debt or some other contractual mechanism.

[10] Foreign branches within regional blocs may be acceptable.

funding is provided at 'arm's length', and subject to counterparty risk limits. The use of change of control-, cross-default- and "walk away" clauses and of intra-group guarantees is similarly limited (or their application can be suspended by local law upon application of the resolution powers).

- **Operations**: Critical services are provided through structures that are resilient and adequately protected from failure of different parts of the group. This may require subsidiaries to have local functionality and staffing so that they can operate on a stand-alone basis. Service level agreements for a sound part of the group should not be at risk if other parts of the group fail.
- **Information:** Critical management information, including financial statements, is available at the local subsidiary or bloc level (though consolidated financial statements for blocs are unlikely to be readily available). This includes detailed information on: capital availability, subordinated debt, contingent capital and debt; and information on operational links. Firms should be able to produce legal entity specific information upon request in respect of their recovery or operational resolution plans for all legal entities that are systemic in the home or any host jurisdiction. Additionally, management information systems should be readily separable from the rest of the corporate organisation so that they can be used at the local subsidiary or bloc level.

2. Resolution strategy

A resolution strategy sets out the key elements of the proposed approach to resolution. The scope, conditions for entry into resolution and activation of the operational resolution plan, and funding arrangements for the proposed approach should be made clear. The strategy may also contain a high level summary of the key operational issues and the approaches that may be adopted following resolution.

The strategy should provide a summary of the key options resolving the failing firm in a way that protects critical functions, government funds and systemic stability, and otherwise achieves relevant resolution objectives.

2.1 SPE strategy

The SPE resolution strategy should clearly identify and describe:

- a high level overview of the group structure and intra-group relationships, which should meet the pre-conditions set out in Section 1.1 above;
- the approach that is likely to be used (in broad terms): for example, is it envisaged that a bridge entity will be used, and will there be a creditor bail-in within resolution at the holding company level? Is it envisaged that some or all of the business be transferred or wound-down after initial stabilisation in resolution?
- the specific legal entity(ies) that would be subject to resolution measures under the SPE;

- the conditions for implementing the plan, distinguishing where appropriate between developments affecting the top operating company or parent and those affecting operating subsidiaries;
- the amount of loss absorbing capacity that is likely to be available at the point at which conditions for resolution are met;
- arrangements for providing funding to the entity subject to resolution measures under the SPE, including the scope, if any, for deposit guarantee schemes or other protection funds to bear losses in accordance with their position in the creditor hierarchy; and
- key potential sources of funding and the means by which resources are to be down-streamed to or up-streamed from operational subsidiaries, and the assurances supplied to counterparties.

2.2 MPE strategy

The MPE resolution strategy should clearly identify:

- a high level overview of the group structure and intra-group relationships, which should meet the pre-conditions set out in Section 1.2 above;
- the central assumption for the points at which entry to resolution is likely to occur, i.e., the legal entities to be subject to use of resolution powers. Beneath each point of entry in a global MPE approach may sit subsidiaries and branches in a number of jurisdictions and these “blocs” may be each subject to either a regional or national SPE or MPE approach. Such a combination of SPE and MPE approaches would still entail more than one point of entry and is therefore referred to simply as MPE;
- the central assumption for the approach that is likely to be used at each point of entry (in broad terms), e.g., bail-in within resolution, bridge entity, transfer of business and wind down;
- the scope of businesses covered by each point of entry, including where any regional or other blocs are envisaged;
- the amount of loss absorbing capacity that is likely to be available at each point of entry when conditions for resolution are met including, where applicable, the capacity to impose appropriate losses on deposit guarantee schemes;
- the conditions for implementing the plan, distinguishing where appropriate triggers that would allow resolution at the various points of entry identified;
- any material interdependencies between the points of entry that may exist, the approach to coordination between the authorities responsible for each point of entry and the role of home authority in terms of coordination;
- timing and preconditions for the application of resolution powers in various jurisdictions (including the assessment of interdependencies, ‘first-mover’ issues and communication with financial markets); and
- potential sources of funding for the resolution including, where appropriate, use of resolution funds or deposit guarantee funds.

3. Annual review by top officials

The *Key Attributes* require that COAGs "provide for meetings to be held at least annually, involving top officials of the home and relevant host authorities, to review the robustness of the overall resolution strategy for G-SIFIs" (*Key Attribute* 9.1(ix)). The first such reviews should take place by the end of 2012. The high-level review would be broadly similar under the SPE and MPE approaches and could cover, amongst other things:

- a review of the robustness of the conclusions of the operational-level resolvability assessment, particularly with regard to the credibility of the operational resolution plan where a view needs to be taken at the senior policy-maker level;
- consideration of the impact that any material changes to the G-SIFI, market or political environment, or laws or regulations in relevant jurisdictions may have on the robustness of the chosen strategy/ies;
- discussion and resolution of outstanding issues that were not resolved at the operational level; and
- a review of whether operational resolution plans and COAGs (including information sharing agreements) need to be strengthened or updated.

4. Operational resolution plan

An operational resolution plan specifies in more detail the decisions needed to implement the strategic approach outlined in the resolution strategy. Amongst other things, it should provide details on the following:

- Processes for deciding on the preferred resolution strategy
- Resolution powers to support implementation of the strategies
- Critical functions and critical shared services
- Conditions for activation of resolution plans
- Scope – legal entities subject to resolution
- Potential sources of resolution funding
- Information requirements
- Valuation requirements
- Regulatory and third party approvals
- Appointment of advisors
- Payments, clearing and settlement
- Moratoria and stays
- Maintenance of third party contracts and intra-group Service Level Agreements
- Communication with host authorities and other parties

4.1 Processes for deciding on the preferred resolution strategy

There should be a clear process for making decisions in relation to the resolution of the banking group. In determining the appropriate course of action, the objectives of resolution authorities, as set out in *Key Attribute* 2.3,[11] need to be kept in mind.

The processes set out for activating strategies for SPE and MPE approaches are likely to differ. The primary approach should be to activate the resolution strategy and plan. However, resolution authorities may ultimately find it necessary to implement a different strategy in light of certain critical factors such as the root cause(s) of the failure, the particular entity(ies) that caused the failure and the conditions prevailing in the financial system and economy more generally. In arriving at a preferred resolution strategy for a group, CMGs should also consider fall-back options and detail these in their operational resolution plans.

The operational resolution plan should describe clearly how the preferred resolution strategy is activated in a coordinated way or how a decision would be made to diverge from it, where appropriate.

- **In a SPE strategy,** the home authorities are responsible for leading the resolution, coordinating actions with the host authorities and ensuring that resources can flow from the top of the group down to operating subsidiaries.
- **In a MPE strategy,** the authorities leading the resolution of each subsidiary or bloc are responsible for the implementation of the measures agreed. In the case of a bloc of subsidiaries, a lead jurisdiction should be identified and it should liaise with host authorities within each bloc. Those bloc leaders and all other subsidiaries would also need to liaise with the home resolution authority; the home resolution authority would have a lead coordinator role in order to ensure a global view for the group was maintained, while simultaneously developing approaches to reconcile any conflicts of interest that may arise. In pursuit of their public interest objectives they will need to consider the impact of their actions on the franchise value of the group or regional bloc. Where intra-group links are very limited, in appropriate circumstances MPE strategies may be implemented only partially, with one point of entry covering only part of the group. The rest of the group would not enter resolution.

4.2 Resolution powers to support implementation of the strategies

The operational resolution plan should include, for each relevant jurisdiction, reference to its legal basis for resolution and the powers available, the authority in charge of exercising the powers, the process for exercising the powers, and a timeframe for taking action. There should be clarity as to which legal entities are to be subject to the powers (see Section 4.5 below for scope) and the conditions for their use (Section 4.4 below). The circumstances in

[11] That is: pursuing financial stability and ensuring continuity of systemically important functions; protecting depositors, policyholders and investors according to relevant protection schemes and arrangements; avoiding unnecessary destruction of value and seeking to minimise the costs of resolution to home and host authorities and losses to creditors; and duly considering the potential impact of its resolution actions on financial stability in other jurisdictions.

which the exercise of resolution powers will be supported by the host authorities should be set out.

- **SPE strategy -** The SPE approach should identify the resolution powers to be employed by the home and host authorities to provide for the recapitalisation of operational subsidiaries. There is likely to be some use of bail-in within resolution at the top of the group to provide the capital where this is necessary. Alternatively or additionally, the home authorities could achieve a similar economic effect by using a bridge entity or private sector transfer powers, and leaving behind certain external creditors. The SPE operational resolution plan should also set out the legal and financial means by which resolution powers are applied and implemented, and the means by which counterparties are prevented from terminating contracts with subsidiaries (in line with *Key Attribute* 4.2), and any exceptions to such permanent prohibitions or temporary stays. Any proposed transfer of funds between entities needs to be examined for any impediments arising from applicable legal, tax, regulatory and accounting regimes.
- **MPE strategy -** Bail-in within resolution may also be used in the MPE approach at the level of parent or subsidiaries, or both. It will depend on the distribution of loss absorbing capacity, the need to maximise value and the authorities' preferences regarding "new" controlling interests. In appropriate cases, where deposits are not subject to depositor preference, losses may be absorbed by the deposit guarantee scheme (DGS) in the relevant jurisdictions. Alternatively or additionally, a bridge entity may be established by the lead authorities for each subsidiary or bloc, in which case the national process for establishing a bridge entity should be summarised in the plan. Private sector transfer or appropriate insolvency powers may also be used for parts of the business. Where this is the case, options could be set out for parts of the banking group that could be transferred and those that could be wound-down.

Either the firm-specific operational resolution plan or COAG, in line with *Key Attribute* 9.1(viii), should provide an appropriate level of detail with regard to the cross-border implementation of specific resolution measures.

4.3 Critical functions and critical shared services

The determination by the home and host authorities of whether a function performed by the G-SIFI is regarded as a critical function should be based on the same principles (see *Annex 3: Guidance on Identification of Critical Functions and Critical Shared Services).*

Under both SPE and MPE approaches, critical functions will need to be mapped to the legal entities and business units forming part of the group, as resolution measures will almost certainly be applied to legal entities. If a critical function is spread across legal entities and business units in different jurisdictions, the legal and operational interconnectedness needs to be analysed.[12] Consequently, under a MPE strategy the various resolution authorities should coordinate the application of their relevant national resolution powers in order to preserve the operation of the critical function.

[12] See also Section 4.13, Maintenance of third party contracts and intra-group Service Level Agreements.

4.4 Conditions for activation of the resolution plans

Operational resolution plans will need to contain clear conditions for entry into resolution, activation of the plan and the employment of specific resolution powers, recognising that there may be a level of discretion in determining whether the conditions have been met or whether to activate the plan. Conditions for entry into resolution and the use of resolution powers will be based on the provisions in national law. In line with *Key Attribute* 3.1, the conditions should permit timely entry into resolution before a firm is balance-sheet insolvent and before all equity has been fully absorbed. The following considerations relating to conditions for entry into resolution could be addressed in operational resolution plans:

- whether the conditions identified are common to each resolution power, or if there are differences between them;
- whether national resolution conditions relate only to the condition of locally incorporated entities and the extent to which the health of the wider group may be taken into account;[13]
- whether the conditions require mandatory action (and if so what is it) or if the action is discretionary;
- if the conditions do not prescribe mandatory action, any considerations (statutory or otherwise) that the resolution authority would take into account when deciding whether to proceed with a particular resolution strategy. For example, while the condition for a forced sale may be a declaration of non-viability by the supervisor of the G-SIFI, other conditions may have to be present to proceed with this resolution (e.g., that there is a ready and willing buyer);
- the timelines once the conditions have been met and before a resolution strategy can be implemented; and
- when the activation of the operational resolution plan would need to be, or could be, made public under relevant national laws.

It is important to have a common understanding of the conditions that will apply, when they come into effect and the level of discretion afforded in national law. This will help identify the circumstances under which it would and would not be possible to put a resolution strategy into effect:

- **In a SPE strategy,** the plan should identify the conditions in which the failure of an operational subsidiary in the home or host jurisdiction may allow for a SPE resolution by the home authorities for the group, and those in which it would not – recognising the level of discretion that may be available to authorities.
- **In a MPE strategy,** the plan should articulate the impact that entry into resolution in part of the group might have for resolution conditions elsewhere in the group, and how the entry into resolution regimes would be coordinated by home and host authorities. Provided the concerns of host authorities are adequately addressed, they should

[13] The *Key Attributes* require authorities, as part of their statutory objectives and functions to duly consider the potential impact of their resolution actions on financial stability in other jurisdictions.

commit to a coordinated action within the CMG in order to preserve as much value in the group as possible. The latitude of host authorities to allow subsidiaries to go into resolution in such a case, and the level of coordination with home authorities, should be made clear.

4.5 Scope – legal entities subject to resolution

The operational resolution plan should set out the legal entities to which resolution powers are to be applied, based on the assumptions in the plan. The entities or businesses whose failure could prompt the triggering of the group-wide resolution strategy should be clearly identified and included in the plan. Material entities conducting financial business that are outside of the scope of the plan should also be detailed.

- **In a SPE strategy,** the plan should detail any intra-group equity and debt claims that could be subject to write-down following the use of the bail-in within resolution or bridge-entity tool in relation to entities sitting above them in the group, and any exclusion should be noted. Any guarantees or off-balance sheet commitments should be included. Given the time-critical nature of such information, arrangements may be needed to ensure that authorities have ready access to information in the event of a crisis, or are notified of any material changes in positions. The location of bail-in-able debt within the group will be a key determinant of how the burden of a recapitalisation in a SPE will be distributed across the group.
- **In a MPE strategy**, the debt claims that could be subject to write-down following the use of bail-in within resolution or bridge-entity tool should be detailed for each individual point of entry. Critical functions or business units spanning multiple points of entry should also be noted. The plan should set out clearly which aspects of the function or business units fit with each legal entity and the responsible authorities.

4.6 Potential sources of resolution funding

The plan should identify all potential sources of resolution funding, including, where relevant, from national DGS and resolution funds. It should also specify: when this funding is available (e.g., any preconditions and requirements relating to notice or timing); the specific entity to which the funding can be provided (e.g., to the failing entity, the bridge entity, the resolution authority, etc.); and any collateral requirements. Any supranational schemes that may be available (e.g., the European Financial Stability Facility) should also be identified. It is recognised that discussions in some of these areas are only preliminary and changes in the regulatory environment may be expected.

The scope for resolution financing arrangements (RFA) to contribute liquidity, guarantees or bear any costs of resolution should be made clear. Clarity would also be required on the process for approving use of national RFA;[14] whether, and if so what, "burden sharing agreements" are in place; and what form of collateral is required by each RFA.

[14] This should be factored into the strategic decision making in Section 4.1.

Where DGS resources are available to contribute to resolution, the operational resolution plan for SPE strategies should articulate how DGSs may be required to contribute to a bail-in or other resolution of the holding company, as a mechanism may need to be found to allow this.

4.7 Information requirements

The operational resolution plan should set out what information is required in order to effectively implement the strategy. For MPE approaches in particular, this will include information specific to legal entities (or regional blocs), a mapping of legal entities to core business lines and critical functions, and a description of interconnectedness of group entities.

4.8 Valuation requirements

The operational resolution plan should set out the valuation requirements that need to be specified under each strategy. This would include details such as:

- what valuations are required and the valuation principles that would be applied (e.g., going concern vs. gone concern);
- the information that will be required for that valuation;
- the point in time at which the valuation is to take place;
- any need to appoint independent valuers; and
- a timeline for each of these aspects.

Some of these details will differ depending on the specific resolution tool being used. For example: where bail-in within resolution is undertaken, the equity gap and an appropriate swap rate will need to be determined; and where a bridge entity is used, the balance sheet of the entity needs to be established.

Home and host authorities should aim to address difficulties in ascertaining the value of assets and liabilities, bearing in mind that it might become hard to completely overcome such difficulties, as the valuation may depend on the situation the G-SIFI is facing. As a final valuation of assets and liabilities might be difficult to accomplish in a short period, authorities might need to rely on preliminary figures or estimates. The scope for making decisions on the basis of valuations that are not final should be made clear.

The valuation may, to some extent, depend on the resolution strategy chosen. In cases where positive franchise value remains, a single viable business in a SPE approach may be worth more than under a MPE approach. Alternatively, a MPE approach may result in a higher valuation as some parts may be more valuable as stand-alone operations, given the particular market, complexity and perceived risk or uncertainty of the firm.

4.9 Regulatory and third party approvals

Judicial or regulatory approvals are likely to be required in various jurisdictions when resolution measures are applied. Different jurisdictions may impose different requirements for the application of specific resolution powers (e.g., local recognition of foreign proceedings) and national authorities may have different prudential norms for the establishment of new financial entities, transfer of assets and liabilities of existing entities, etc. The operational resolution plan should set out clearly what, if any, regulatory, judicial or other official or firm-level approvals are required to implement each resolution strategy, indicating the authorities responsible for such approvals, any key information requirements, conditions and timelines that must be met to allow for regulatory approval. The operational resolution plan should set out any relevant requirements such as those set by company and securities regulators and listing and workplace authorities.

Where possible, the resolution authorities should identify the approvals needed for the implementation of the resolution strategy (e.g., approval of a change of control, breaches of shareholding caps that could result from a bail-in within resolution, or the charter and capitalisation of a bridge entity) and identify the process for obtaining these and assess, if possible in cooperation with the relevant authorities, the likelihood of obtaining them in a timely manner. This is likely to be particularly relevant to a SPE approach given that national authorities may be required to grant approvals as a result of action by authorities outside their own jurisdiction. However, it is also relevant in the event the group is separated into regional blocs under a MPE approach, as it may require the new bloc to be re-chartered, meeting prudential requirements on a solo basis.

4.10 Appointment of advisors

It may be necessary to engage resources or advisors to assist in resolution activities. The resolution authority may look to existing staff of the G-SIFI to support its operational activities in such areas as legal, treasury, communications, information technology and mergers and acquisitions. In considering the appointment process it will be beneficial to consider in advance a contracting policy, including potential terms of reference and indemnity provisions that will allow for engagement of advisors on short notice. It will be important that authorities coordinate in CMGs to ensure that firms are free from conflicts of interest, including between jurisdictions, and that appropriate confidentiality arrangements are in place and potential conflicts of interest are managed. The operational resolution plan may usefully contain a list of advisors that are eligible to be engaged at short notice, though the type of advisors required will depend on the particular circumstances. It may be necessary to consider cross-border implications in the selection process. Under a MPE approach, advisors may be needed for each subsidiary or bloc. While there may be some streamlining of the number of advisors for a SPE approach, this would depend on the type of advice being sought. In either case, it may be prudent to appoint a common advisor for aspects where consistency is essential, e.g., valuation of assets.

4.11 Payments, clearing and settlement

Where relevant, the operational resolution plan should:

- record the various payment, clearing and settlement services to which the banking group firm has access;
- have regard to any payment, clearing and settlement services identified as a critical function, including where the entity provides services to indirect participants in such systems;

- set out the rules, processes and notifications (e.g., as defined by FMI providers) that the firm would need to meet to ensure its continued access to facilities or services in resolution;
- identify any differences in trigger points for those rules, processes or notifications, across countries and by infrastructure type; and
- address potential to conflict (e.g., where the act of the resolution authority taking control of a failing member triggers default procedures by the FMI).

4.12 Moratoria and stays

The operational resolution plan should outline the arrangements for declaring or otherwise giving effect to moratoria, stays or prohibitions on the exercise of early termination rights, rights to seize collateral and obligations to make payments as they fall due in the main jurisdictions in which the firm operates. The individual authorities that are required to take action should also be identified and the wording, timing and scope of moratoria and stays (including any exceptions) examined for consistency.

4.13 Maintenance of third party contracts and intra-group Service Level Agreements

The operational resolution plan should identify the services that will need to be continued in resolution. Service Level Agreements should continue to be enforceable in both a MPE and SPE resolution. Important service providers and intra-group services are likely to have been identified by the firm in its outsourcing and supplier management processes. In particular, the operational resolution plan should include clarity on:

- identification of material third party and intra-group contracts;
- the likely robustness of those material contracts, and their terms, conditions, assignability etc.;
- arrangements for contacting critical third party suppliers (this could be covered as part of the communication strategy, see Section 4.14);
- arrangements for the continued provision of services across borders (where applicable) through existing (or new agreements) that govern the provision (or onward provision) of third party services to other group members;
- if available, the legal bases for prohibiting third parties from terminating contracts or otherwise refusing to continue providing services; and
- situations, in particular in the context of a MPE strategy, which a third party supplier provides services to one subsidiary or bloc that are then provided to another subsidiary or bloc.

4.14 Communication with host authorities and other parties

Of critical importance to maintain confidence in the financial system is the need to provide all host authorities, depositors, other creditors, key counterparties and other interested parties (e.g., listing authorities, rating agencies) with timely and appropriately detailed information on the resolution strategy being pursued.

Separate approaches are likely to be needed for host authorities and for other parties. Clarity on likely responsibilities for external communication is essential. In a SPE approach subsidiaries' counterparties will need assurance that resources will flow within the group. While much of this will need to be stated in general terms during the early stages of the resolution, it is important to communicate, subject to the relevant legal framework:

- a general overview of the resolution strategy, how it will work and the fact that viable subsidiaries will remain open and continue to operate (where this is the case);
- the types of assurances that may be provided to FMIs and counterparties;
- the anticipated treatment of depositors and other individual creditor classes, including the nature of the exit strategy for a SPE approach and clarification of the treatment of obligations to creditors. This will have to be stated in general terms or with the qualification that the final result of any write-down or conversion of creditor will depend on the subsequent valuation of the G-SIFI's assets and judgments of resolution authorities or independent trustees; and
- a timeline or pre-requisites for completing the exit strategy.

5. Post-resolution

Having a credible post-resolution plan which secures the viability of parts of the banking group that are to continue following a restructuring is key. Options for restoring businesses within the resolved firm to long-term viability or winding them down in an orderly way should be set out in the operational resolution plan. The options cannot be definitive or exhaustive because the circumstances of any given resolution are not known in advance. The options could be developed, amended and revised by the resolution authorities as the probability of the firm entering resolution becomes more likely.

Post-resolution strategies could involve a division of the banking group firm into viable and non-viable parts, including through an operational and legal separation. The viable part of the firm could be further sub-divided into saleable business units. The strategy should indicate which critical functions the authorities consider most necessary to continue (assuming that they remain viable) and which could be disposed of or wound-down in some way over a period of time, while recognising that these decisions will be highly dependent on the reasons for the G-SIFI's financial distress. It should indicate at a high level any constraints that authorities will work under (e.g., in relation to maximum durations for bridge entities or EU state aid rules).

Annex 3

Guidance on Identification of Critical Functions and Critical Shared Services

Introduction

The *Key Attributes* require that jurisdictions prepare recovery and resolution plans (RRPs) for institutions, including G-SIFIs, that could have an impact on financial stability in the event of failure. A strategic analysis of the firm's essential and systemically important functions is necessary for resolution planning and assessment of resolvability. It should help ensure that the resolution strategy and operational plan meet the objective of maintaining continuity of systemically important functions and avoiding unnecessary destruction of value and minimising, where possible, the costs of resolution to home and host authorities and losses to creditors. The focus in this Guidance on critical functions does not imply that, in a resolution, continuity has priority over the other statutory objectives of resolution.

This Guidance is aimed at national authorities for their evaluation of the criticality of functions that G-SIFIs, and especially global systemically important banks (G-SIBs), provide to the real economy and financial markets.[15] It also considers services needed within a banking group. The objective is to provide a common ground for CMGs to carry out these assessments in both a national and a global context. On the level of a single G-SIFI, the framework helps to identify the functions that make the firm systemically relevant.

In practice, criticality has to be determined on the level of specific products and services. All products and services provided by financial institutions would have at least some impact on the economy and on financial stability if suddenly suspended. Focus should be on understanding those activities that have the most significant impact on financial stability so that the resources of the firm can be prioritised to support these areas in the event of a failure.

1. Taxonomy

This Guidance proposes a two-part definition of "critical", based on a distinction between "critical functions" and "critical shared services":

- **Critical functions** are activities performed for third parties, where failure would lead to disruption of services vital for the functioning of the real economy and for financial stability due to the banking group's size or market share, external and internal interconnectedness, complexity or cross-border activities. Examples include payments, custody, particular lending and deposit activities in the commercial or retail sector, clearing and settling, limited segments of wholesale markets, market making in certain securities and highly concentrated specialty lending sectors.

[15] See footnote 4.

- **Critical shared services** are activities performed within the firm, or outsourced to third parties, where failure would lead to the inability to perform critical functions, and therefore to disruption of services vital for the functioning of the real economy or for financial stability. Examples include information technology provisioning given the dependency of core banking processes on IT and other services such as, facility management and/or administrative services.

This Guidance does not provide a definitive list of critical functions, as the definition needs to take into account differences in national product markets and organisational models. It does, however, provide a set of potential criteria and questions for consideration in identifying critical functions and indicative "long-lists" of the types of activities that should be considered as potentially critical (for details see Appendix).[16] This Guidance focuses on the functions and services of G-SIFIs (and especially G-SIBs, since at this stage only banks have been designated as G-SIFIs). It does not, therefore, cover aspects of non-bank G-SIFIs, such as insurance firms or FMIs, though some elements of this note may be relevant more widely. Some of the critical services provided by a G-SIB may be performed by non-bank entities of the G-SIB. In these cases, criticality extends to the non-bank entities. Also, non-bank critical functions exist. However, these are not subject of this document.

The Guidance is focussed on the objective of promoting financial stability. The management of a G-SIFI may have a different view of what services or functions they consider "critical", e.g., by considering a firm's franchise value or profitable business lines. While such considerations can play a role in the recovery phase and may be relevant in more long-term restructuring proceedings, they are not the immediate focus of resolution planning.

2. Framework for critical functions

2.1 Definition

For the purposes of this Guidance, a typical critical function has the following elements:

- it is provided by a G-SIFI to third parties outside the G-SIFI group;
- the sudden failure to provide that function would be likely to have material impact on the third parties, give rise to contagion or undermine the general confidence of market participants:
- due to the systemic relevance of the function for the third parties; and
- due to the systemic relevance of the G-SIFI in providing the function.

The absence of one of these elements is a sign that a function is not critical. For example, the failure of some services provided by a financial firm will not have a substantial impact on

[16] There is some relationship with the assessment methodology by the Basel Committee on Banking Supervision (BCBS) for global systemically important banks: see BCBS (2011), Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement, http://www.bis.org/publ/bcbs207.pdf. However, the BCBS identified proxies to determine systemic relevance and to calculate higher loss absorbency requirements. While those proxies measure some of the activities of a firm, they neither identify specific critical functions directly, nor cover all activities that might be seen as critical from the perspective of recovery and resolution planning, which requires a more granular view.

customers, counterparties, markets or the economy. This might be the case with a G-SIFI's activities in the CDO market. Services that do not have a significant impact on economic or financial stability or that can be substituted with a minimum of time and cost should not be considered critical. Similarly, the impact of a failure of certain activities might only be felt some time after the failure has occurred. This is particularly true for those activities that are not transaction-intensive, such as long-term lending. The criticality of such functions depends greatly on the ability of the market to substitute the role of the failing banking group in reasonable time.

2.2 Determination of critical functions

Applying the definition given above, the criticality of a function can be assessed in a three-step process.

i. Analysis of the impact of the sudden discontinuity of the function ("negative externalities");

ii. Evaluation of the market for that function ("supply side analysis");

iii. Assessment of the impact of a failure of a specific G-SIFI that performs that function.

Certain aspects of the assessment are highly market-specific and require in-depth knowledge of the specific circumstances in which a critical function is provided. In particular, the criticality of a function a G-SIFI provides can vary across countries. Home supervisors should communicate with relevant host authorities so that the assessment considers all relevant jurisdictions and markets where a G-SIFI is active and those functions and services that may be deemed critical in host jurisdictions (see *Annex 2: Guidance on Developing Resolution Strategies and Operational Resolution Plans*). The assessments should take into account those functions and services deemed to be critical in host jurisdictions.

a) Assessing impact of failure

The criticality of a function is always driven by the impact of a failure on external parties, i.e., the reliance of third parties on the continuous provision of a function. A function is critical if its disruption results in significant negative impact on a significant number of external parties. In addition to the direct impact, systemic aspects must also be considered, including contagion effects and loss of general market confidence by market participants; these effects are likely to differ depending on the conditions in the financial system at the time failure is occurring. Where the failure of a function does not result in systemic effects and where the negative impact – even if significant in scale – is limited to a smaller circle of counterparties, the function is generally not to be considered as critical.

The following questions suggest factors to consider when assessing the criticality of a function:

- What is the nature and extent of this activity?
  - Products, services, means of delivery?
  - Global, national, regional?

    - Customers and stakeholders: corporate, interbank, retail, non-bank financial services, other sectors of the real economy (e.g., housing)?

- What impact would disruption of the function have on **markets and infrastructure**?
    - Impact on other financial services firms and markets
    - Speed at which disruption would cause these impacts
- What impact would disruption of service have on **customers** (i.e., how critical is the provision of this service to its end users)?
    - How "critical" is the regular provision of the function to the health of the customer base?
    - Will customers have the ability to recognise a firm's distress and react?
    - What elements of the customers' operations are affected? Is the disruption likely to be across-the-board or affect only specific parts of the business?
    - Are there knock-on effects of this disruption to other customers, suppliers, counterparties, etc.?
- What impact would disruption have on market participants other than customers, such as service providers and market utilities, and public services? (similar questions to the above)
- Is this market crucial to the functioning of any other market(s)? What are the interdependencies?
- Is the product always sold as a bundle or with a tie-in to any other products?

b) Evaluating the market for the function ("supply side analysis")

In general, the market should be able to substitute failing providers quickly. However, the structure of the supplier market and operational factors may make a timely substitution of a failing provider very difficult or impossible without adversely affecting the stability of the financial system. In addition, the preparation for such a scenario by third parties, combined with its low probability, may come with unacceptably high costs. An assessment of criticality should therefore include supply side analysis of the number and concentration of providers, availability of potential new market entrants, availability of readily substitutable products, speed, costs and hurdles of substitution and the willingness of other firms to provide the activities of a failing firm.

A supply side analysis may also indicate measures which could strengthen the structural resilience of financial markets and thereby reduce criticality of individual firms in providing those services. For example, it may be possible to take measures to modify the criticality of a function that arises from factors of supply: encouraging new providers to enter the market or diversification by the demand side and operational improvements such as product standardisation and system inter-operability, may have significant effects on criticality. The assessment should also consider the economic rationale of a function. In some cases, a function can in principle be obtained from, several unrelated products and markets, which is relevant substitutability. However, assessments of substitutability also need to acknowledge that assumptions about ease of alternative providers are likely to differ depending on whether the failure is idiosyncratic or occurs in the context of a more widespread crisis.

The following questions are relevant to this analysis.

Concentration:

- How concentrated is the market and what are the related trends (increasing/decreasing)?
    - If highly concentrated, how many players are involved? What are the shares of the other major firms? Is the market dominated by a particular institution type or entities from a specific jurisdiction or region?
    - Is there a particular reason for the level of concentration?
- How similar are the institutions that dominate market share? If one typical player were under stress, would others likely also be under stress?
- To what extent do individual firms with dominant market shares in the market in question also have dominant market shares in other critical markets?
- Would the failure of a large player in this market have an impact on the ability of the market or related infrastructure to function?
- How small a market share would a player need to have to fail without significantly disrupting the activity?

Substitutability:

- Are clear substitutes available?
    - Would one single provider be sufficient to take on all activities/clients?
    - Would other providers wish to take on these activities? And if an alternative provider was willing, what market concentration would result?
    - Are there other products and markets that provide a function broadly equivalent to the activities of a failing firm?
- What are the critical factors of success in performing this activity?
    - How extensive is the infrastructure needed to provide this service?
    - Does this activity have significant barriers to entry?
    - To what extent do brand, positioning or reputation matter?
- Are there reasons why existing dominant players would find this business attractive while others would not (i.e., economies of scale that relate to the product in question)?
- How do firms compete for this activity?
- Is there evidence that this market is highly substitutable?
    - How frequently do the main players in this market turnover?
    - How many new players are involved in this turnover?

  - How often do large players come and go?
- How quickly would a substitute service provider need to be found to prevent significant disruption?
- Does a transaction involve extended exposure to a client (thus requiring greater due diligence)?
- Are there other barriers to entry for new service providers, and what form do these barriers take?
- How quickly can users of the service move to new service providers? What are the steps and costs involved in such a move?
  - Switching costs to the customer
  - Switching costs to the institution acquiring the customer
  - How much time is needed for the technical implementation of the new service relationship (by the customer and by the service provider)?
- How extensive is the expertise and training needed for employees to provide this service? How much knowledge about a customer is needed for a particular transaction?
- How tailored or customised is the product?
- Are there regulatory approvals necessary?

c) Assessing the criticality of the function of a specific G-SIFI

A function is generally considered to be critical in relation to a particular firm if the firm is sufficiently important in the provision of that function to the market that the failure of the firm would have a material impact on third parties, the potential for contagion and the potential to undermine the general confidence of market participants. If a function is critical for one firm, it cannot be assumed that the same function is critical for others. The analysis must therefore be carried out on a firm-by-firm basis, having regard to the following questions.

- What is the overall market share of the G-SIFI in regard to the specific function and the share in specific market segments (e.g., counterparties, regions)?
- Could the absolute and relative volume of business hamper the effectiveness of crisis measures?
- How does the function in question relate to other functions of the firm or of the market?
  - Is the provision of a function contingent on the availability of other functions (provided either externally or internally)?
  - What chain of events within the troubled firm would most likely cause the service provision to be disrupted? (Firm needs to cut limits to customers, firm loses its membership in an exchange so customers cannot transact etc.?)
- Does the failure of the G-SIFI to provide a function send out a "systemic signal"?

3. Framework for critical shared services

3.1 Definition

For the purpose of this Guidance, a critical shared service has the following elements:

- an activity, function or service is performed by either an *internal* unit, a separate legal entity *within* the group or an external provider;
- for one or more business units or legal entities of the group;
- the sudden and disorderly failure or malfunction would lead to the collapse or serious impediment of critical functions.

If one of those elements is absent, this suggests that the shared service is not critical. For example, if an internal activity, function or service, such as facilities management, can easily be substituted from other, external sources, that shared service is not critical, even if it is necessary for maintaining the critical functions of the company.

The fact that an activity, function or service is shared does not necessarily mean that it is a critical shared service, as it may support tasks not directly related to maintaining critical functions: e.g., a centralised marketing department.

3.2 Determination of critical shared services

Critical shared services relate to the critical functions a company performs. Their designation should therefore follow the identification of the critical functions. The services provide the internal and essential infrastructure the firm needs to continue operating. Given the variety of shared services and the limited time and resources in a resolution scenario, it might be helpful to rank the shared services in order of priority. While some shared services have to be continuously provided, there might be others where failure for a short time span will not lead to a collapse of the critical functions. In prioritising shared services, the following questions are relevant:

- How severe are the consequences of the failure of this particular service on the critical function?
- How quickly will the failure of this particular shared service lead to a collapse of the function deemed critical?

For the analysis, there should be a clear understanding of the following elements of the shared services at *legal entity level*:

– the provider and the recipient of the services;

– the nature of the services being provided;

– the financial terms on which those services are offered;

– the existence of service level agreements and the validity of such agreements in the event of failure; and

– the impact of default on the ability of the firm to maintain these services.

3.3 Potential challenges

Critical shared services should be organised or procured in a way that ensures the continued availability of shared services to all relevant parts of the firm under the chosen resolution strategies. Examples for such arrangements include, but are not limited to, performing shared services out of separate legal entities or by preparing in advance for a carve out in a crisis. If the service arrangement is with an external provider, special arrangements should be in place in order to ensure continuation of the services.

The complexities of dependencies arising from shared IT systems, which may differ from the structure of business processes, are important given that the vast majority of G-SIFIs' business processes will likely depend upon IT systems.

If cross-border inter-company service agreements cannot be enforced in resolution, this may prevent the continuation of the service. Firm-specific crisis preparation should ensure continuation of these services in resolution.

Determination and management of critical shared services should be linked to the business continuity planning processes of the firms.

Special consideration should be given to services that require a highly specific firm-internal knowledge. In this respect the retention of key personnel in short and medium term is a major operational issue.

Appendix

1. Potential critical functions

Although the structure of financial markets varies from country to country, the economic rationale of banking is more or less similar. The critical functions are therefore assessed as five broad categories with distinct economic objectives and characteristics: deposit taking; lending; payments, clearing and settlement; wholesale activities; and capital markets activities.

1.1 Deposit taking

a) Scope

- **Deposit taking refers to the acceptance of deposits from non-financial intermediaries.**

It does not include borrowing from other financial intermediaries, which is dealt with separately as “Wholesale activities” (see below).

- **Deposit taking refers to the whole lifecycle of the deposit taking activity.**

This includes the acceptance of the deposit and the maintenance of deposit accounts. Criticality and substitutability of deposits may vary through the lifecycle.

- **Deposits can be critical regardless whether they are covered by a deposit guarantee scheme (DGS) or are subject to depositor preference.**

The concept of criticality extends beyond the exposure to losses from a failing firm. The market reaction to a failing firm and the impact on financial stability may not be completely mitigated by the availability of depositor protection arrangements, but depend on their design and on other factors related to the market structure.

- **The impact of failure of deposit taking activities on other deposit takers.**

Deposits are “critical” to the firm insofar as they have a significant impact on its funding. However, that impact is not taken into account for the purposes of assessing the criticality of that function. What is relevant for this purpose is the risk that the failure of a deposit taker may cause systemic effects such as more general bank runs affecting other deposit takers.

- **If a general loss of confidence affects deposits with other banks, impact on the macroeconomic credit channel can be expected.**

A breakdown of depositing activity on systemic scale is likely to have an impact on the credit channel, as long as there are no mitigating actions e.g., by monetary policy. These measures are out of scope for the purpose of this Guidance. However, firm-specific and market characteristics which facilitate or prevent contagion should be analysed and addressed.

b) Drivers of criticality

❖ **Under most circumstances, the activity of <u>taking new</u> deposits shows low criticality as long as depositors are <u>willing</u> to deposit with other banks.**

The failure of a deposit taking bank prevents it from accepting new deposits. Examples have shown that in many cases, other market participants will be able to accommodate the increased deposit supply. Taking new deposits can therefore be regarded as highly substitutable. However, substitutability can be constrained by market structure and operational issues. In the retail segment, customers may not have easy access to other deposit takers, e.g., because of a lack of bank branches but also based on business considerations. Also, other market participants might face operational challenges in opening new accounts and handling deposit inflows on a large scale. As shifts from troubled or perceived troubled banks to other providers can also be regarded as time critical, difficulties or delays in transferring deposits to other providers can be a source of further instability.

❖ **Deposits with little residual maturity are more critical.**

Difficulties in paying out deposits due can expose the depositor to liquidity problems and send out strong negative market signals which could lead to runs irrespective of the credit risk the depositors actually face. For longer-term deposits credit risk is more relevant whereas liquidity risk is less important.

❖ **Criticality depends on the type of depositor.**

Different types of depositors may exhibit different kinds of behaviour. Institutional investors have demonstrated that they act quickly and well in advance of a failure, and generally have greater choice of alternative providers. Also, these depositors tend to be more diversified and have reduced or minimal benefit from deposit guarantee schemes since the size of the deposits often exceeds the covered amount. Deposit taking for institutional investors is therefore to be seen as less critical. Retail depositors may rely more on existing protection arrangements and are generally less diversified, though the availability of alternatives may be greater. To the extent that the protection arrangements may not be regarded as credible or effective, retail deposits should be considered as critical.

❖ **Credible depositor protection arrangements can significantly reduce or mitigate criticality.**

There have been cases where DGS, depositor protection regimes or even credible, blanket government guarantees have failed to safeguard stability. The assessment of criticality should therefore consider the effectiveness and credibility of the protection arrangements. Deposit taking may be critical where the capacity of the scheme is insufficient to cover the failure of systemic players or a significant group of smaller banks with similar risk profiles. Also, the ability of the protection arrangements to accommodate short-term liquidity needs of depositors has to be taken into account. The less this is the case, the higher is criticality.

c) Aspects to consider for the impact assessment

- To what extent are deposits subject to depositor preference?
- To what extent are deposits covered by a DGS -
  - by depositor type;

  - by size of deposits;
  - by maturity?
- What are the maturities of outstanding deposits?
- Do circumstances increase the probability of the withdrawal of deposits on systemic scale, e.g., due to -
  - market share of the failing bank?
  - market share of a group of banks perceived similar to the failing one?
- Is the DGS credibly capable of covering the failure of -
  - the failing bank; or
  - a group of banks perceived similar to the failing one?
- Are depositor protection arrangements in place to cover the immediate liquidity needs of depositors even in stress scenarios?
- What impact is expected on the funding structure of other deposit takers?

d) Aspects to consider for the supply side analysis

- What are the characteristics of the supply side market structure:
  - concerning depositor types (retail, institutional)?
  - in a particular region?
- Are alternate providers able to cope with a significant number of new accounts and inflow of new deposits from a financial, operational and technical perspective?

e) Examples

Type of Activity	Examples for definition of critical deposit-taking products
Deposit-taking	(Insured) deposits from: · Retail depositors; and · Commercial depositors Certificates of deposit

1.2 Lending

a) Scope

❖ **Lending refers to the provision of funds to non-financial counterparties, such as corporates or retail customers.**

Lending to financial counterparties is a distinct activity and assessed as “Wholesale activities” (see below).

❖ **Lending will be critical if liquidity and funding strains for the borrowers occur before customers can find alternative sources of credit.**

The real economy depends on a regular flow of credit. The failure of a lender will expose borrowers to both near- and long-term liquidity constraints. The ability of borrowers to adapt to the failure of a bank will be affected by the terms on which they borrow and the ability to find alternative sources.

- **A particular lending product may be critical in one market or country, but not in others.**

The criticality of a product within a given country will reflect both the characteristics of the product and the competitive environment. Products and services may differ significantly between markets for both structural and historical reasons. Countries also differ significantly in terms of the number of sizable lending institutions competing in their markets.

b) Drivers of criticality

- **Standardisation increases substitutability and reduces criticality.**

Standardised products are more easily substituted or transferred to other firms than more customised ones. Where lending is based on collateral, greater standardisation of collateral terms and transparency of collateral values also increase substitutability.

- **For business lending, borrower size generally increases substitutability and reduces criticality.**

Larger firms will typically have access to a wider range of potential lenders and many of the largest firms will have direct access to debt capital markets. Small and medium enterprises, by contrast, will typically only have a single house bank. Financial information on such firms may also be limited, further restricting the ability of other banks to quickly substitute for the failed firm.

- **For consumer lending, standardisation of underwriting (through such means as broadly available credit scores) increases substitutability and decreases criticality.**

The substitutability of consumer credit products increases with the level of standardisation. The availability of credit scores that are not proprietary to a specific bank further increases substitutability.

Special issue: Credit card loans
Credit card lending is a significant driver of consumer spending in a number of countries. In some, there are active markets in buying and selling credit card portfolios. In many, underwriting decisions are standardised through credit scores. Secondary markets for card portfolios and credit scores increase substitutability. In addition, in some markets credit card products perform an important payment function to the real economy, which makes them more critical and time-sensitive.

- **Lending that is shorter term is more likely to be critical than lending that is longer term.**

Short-term lending often supports the working capital needs of firms. Borrowers often rely on credit lines or overdrafts with their banks to close temporary liquidity gaps. Both products would be likely to have an impact on the economy if disrupted in the short-to-medium term.

In contrast, the borrower is not immediately affected by the failure of a firm that has provided it with term credit.

<u>**Special issue**: Trade finance</u>
Because industrial corporates often rely on trade finance for cross-border business, the unavailability of trade finance may disrupt the international flow of goods. Trade finance products are regularly part of a more encompassing banking relationship and may be difficult to acquire on standalone basis. In addition, in some countries relatively few banks may be able to expand their provision of trade finance products.

- ❖ **Non-bank lenders might increase substitutability, especially when ample liquidity is available.**

Non-bank lenders, such as money market funds, insurers and finance companies, provide funds to the overall economy in certain jurisdictions. However, this role is limited to specific market segments. Moreover, non-bank lenders may excessively rely on leverage provided by banks, restricting their ability to play this role in a more general systemic crisis. The potential for non-bank lenders to replace the functions of a failed bank therefore needs careful analysis.

c) Aspects to consider for the impact assessment

- Which kind of counterparties are loans extended to?
  - Are the loans extended to a large group of small borrowers (e.g., retail)?
  - Is the group of borrowers small, but are the loan sizes considerable on average (e.g., commercial loans)?
- What are the funds used for?
  - Are they for short-term liquidity provision?
  - Are they more for investment-like purposes?
    - Mortgages (Residential / Commercial / Construction Financing)
    - Commercial financing
  - Are they for short-term consumer financing (e.g., credit card loans)?
- What is the average size of a loan?
- What is the average maturity?
  - Is the loan implicitly or explicitly assumed to get rolled over with the same provider when maturing?

d) Aspects to consider for the supply side analysis

- What are the characteristics of the supply side market structure in particular lending segment or region?
- Are there alternative providers with sufficient relevant expertise to quickly replace the failed lender?
  - Do other providers have a sufficient track record in providing loans to a particular segment?

    - Do other providers have experience in risk management in regard to the lending segment in question?
    - Do other providers have established operating procedures to take over a significant share of new business?
    - Are other providers able to perform the activities on a sufficient scale?
- How are the loans collateralised?
    - What kind of collateral is pledged?
    - Is there a standardised, independent and transparent valuation process?
    - Are the collateral arrangements easily transferrable? Does the use of collateral for several loans impede transferability?
    - Does the value of the collateral correlate with counterparty risk?
- To what extent is the particular lending segment standardised?
    - How similar are the loan contracts?
    - How similar are credit risk procedures?
    - Are the loans or the portfolio of loans suitable for securitisation or transfer to a special purpose vehicle (SPV)?
    - Is credit history based on a formalised and transferrable assessment or does it rely on the existence of a longer-term business relationship?

e) Examples

Type of Activity	Examples for definition of critical lending products

Lending	· Mortgage Lending with a residual maturity of *x* months
	· Retail Lending
	· Commercial Lending
	    - Secured with a residual maturity of *x* months
	    - Unsecured
	· Committed Credit Lines running up to *x* days
	· Trade finance

1.3 Payments, Clearing & Settlement

a) Scope

❖ **For the purpose of this note, the payments, clearing and settlement function is limited to those provided by banks to their clients. It does not cover (pure) financial market infrastructure (FMI) providers.**

FMIs are subject to specific recommendations (see CPSS-IOSCO *Principles for Financial Market Infrastructures*, April 2012). However, the scope extends to non-bank entities of a bank, as some of the critical payments, clearing and settlement functions might be provided out of a non-bank entity of the firm, e.g., a broker dealer.

- **The types and levels of payment, clearing and settlement services provided by a bank to facilitate financial transactions may vary depending on their role in the functioning of the financial markets.**

A bank may provide payments, clearing and settlement services as an intermediary between its own clients or as an intermediary between a client and relevant FMIs. In some cases, the bank may also be a provider of payment, clearing and settlement services to a FMI or may provide access to FMIs to other banks which are not clearing members.

- **Several functions in the area of payments, clearing and settlement and related services are performed across borders or implicitly rely on the availability of functions and access to funds and infrastructure in several countries.**

Depending on the function, the analysis of criticality might have to include both a national and a global perspective. This is the case for FX clearing and for related functions such as global cash management.

b) Drivers of criticality

- **Market concentration increases criticality.**

The higher the market share of a provider in a particular market segment, the greater the criticality, as the failure of a large provider affects more counterparties and may also impede the liquidity of certain asset classes and of FMIs active in the relevant market segment.

- **A greater scope of operation increases criticality.**

Payment, clearing and settlement services to a larger geographic area, involving high volumes or high values are deemed to be more critical.

- **Complex, non-standard interfaces increase criticality.**

Professional customers need more time to migrate to alternative services if payment, clearing and settlement services are provided through complex, non-standard interfaces.

- **The availability of substitutes reduces criticality.**

The availability of alternative channels to clients may reduce criticality, although the assessment must take into account timing, efficiency and costs. The existence of high standardisation and common products, rules, operational and technical procedures can enhance substitutability.

- **The link to related services, e.g., transaction accounts, deposits and custody, might increase criticality.**

Having access to the funds or securities to be transferred is a prerequisite to use payment, clearing and settlement services. The link to those related services might reduce substitutability and increase criticality.

- **The reliance of FMI providers on services of the bank increases criticality.**

In some cases, banks provide payment, clearing and settlement services to FMI providers. Banks might also play a role in the liquidity provision to FMIs. The failure of such banks can have a direct impact on the functioning of the FMI and thereby indirectly affect a large number of counterparties not related to the troubled firm.

- ❖ **Criticality depends on the asset class to be cleared and the ultimate counterparties of the transactions.**

An interruption of clearing and settlement of high volume and highly liquid asset classes is likely to have more impact than an interruption in less important or isolated ones. Therefore, analysis should be differentiated by asset class and may be dependent on the actual circumstances in the market. The type of ultimate counterparties, e.g., financial intermediaries or non-financial firms, should also be considered.

- ❖ **The assessment of criticality depends on the structure of the markets and their segmentation. Links between market segments increase criticality.**

Payments, clearing and settlement is normally segmented across asset classes, e.g., cash in various currencies or types of securities are settled through different channels. Also, the channels used for a transaction may depend on size and volume. However, many transactions involve several legs that are settled through different channels. Through these links, the disruption of a service in one segment can affect others.

c) Aspects to consider for the impact assessment

- What kind of counterparties are payment, clearing and settlement services provided to?
  - To what extent are the services provided to retail, corporate, financial or institutional counterparties?
  - What is the relationship between the number of counterparties, the volume and value of transactions? Is the number of counterparties limited, but payment sizes considerable on average (e.g., role of settlement agent for a financial counterparty)?
- What is the impact of a potential interruption on the counterparties?
  - Does an interruption of the service affect the liquidity position of the counterparties? Can payments be postponed for a limited period?
  - Do the payments volumes or sizes vary significantly (e.g., end of month payments)?
  - Are the payments subject to unwinding? Is there any automatic termination or unwinding? Is there any regulatory stay in crisis scenarios?
  - Does the mechanism include novation of obligations?
- Are the transactions collateralised?
  - What type of collateral has to be pledged?
  - Is there a standardised, independent and transparent valuation process?
  - Are the collateral arrangements easily transferable?
  - Does the value of the collateral correlate with counterparty risk?

d) Aspects to consider for the supply side analysis

- How is the market segmented?
  - by asset classes (cash, securities)?
  - by transaction characteristics (size, volume)?
  - by counterparty type (retail customers, small and medium corporates, large corporates, financial intermediaries, institutional investors)?
  - by region (on national and international level)?
- How concentrated is the market?
  - What are the market shares based on? For example:
  - payments (average gross volumes and values as per cent of total system volumes and values);
  - clearing and settlement (level of trading activity as a proxy for clearing and settlement activity);
  - custody services (value of assets under custody as a percentage of total market value);
  - the amount of revenues generated from payment, clearing and settlement activities as percentage of total market revenues.
  - To what extent do providers settle transactions internally without crossing to external providers (e.g., other banks or FMIs)?
  - To what extent are providers able to net transactions?
- Do other providers have relevant expertise in a particular payment, clearing and settlement segment?
  - Do other providers have a sufficient track record in providing payment, clearing and settlement services to a particular segment? What are their market shares?
  - Do other providers have experience in risk management in the segment in question?
  - Do other providers have established operating procedures to take over a significant share of new business?
  - Are other providers able to perform the relevant servicing activities on a sufficient scale?
- Are there impediments to substitutability?
  - How quickly can clients move to other service providers?
  - How can availability, authenticity, integrity and confidentiality of data be safeguarded during a migration?
  - How costly is it to customers to switch to other service providers in a timely manner? Is it reasonable for customers to establish access to alternative channels in advance?

  - Are there barriers to entry into the market for new service providers?
  - Will new providers be able to gain membership to relevant FMIs sufficiently quickly? Under what conditions are troubled providers able to maintain membership?
- To what extent is the particular payment, clearing and settlement segment standardised across providers?
  - How similar are the underlying products legal and operational framework?
  - How similar are risk evaluation procedures?
- How deeply embedded are payment, clearing and settlement services with other business activities of the bank?
- How are risks and costs associated with storage and delivery of physical instruments and commodities identified, monitored and managed?

e) Examples

Type of Activity	Examples for definition of critical payments, clearing and settlement products
Payments, Clearing and Settlement	Retail Payments Services Wholesale Payments Services … both single currency and FX. Clearing Services Settlement Services … for all relevant asset classes. Other Related services Custody Services Corporate Trust Services Treasury/Cash Management Services Asset Servicing FMI access for financial third parties ("bank to bank") Collateral management / transformation for third parties Liquidity lines to FMI providers

1.4 Wholesale activities

a) Scope

- **Wholesale activities refer to lending and borrowing in wholesale markets to and from <u>financial</u> counterparties. It does not include intra-group flows.**
- **The primary reason for considering wholesale functions to be critical is the potential for contagion across the financial system.**

Disruption of certain wholesale markets may expose counterparties to significant liquidity and solvency strains which in turn have the potential to prevent counterparties from providing other critical functions. Contagion might also occur through indirect effects: for example, the run on an institution whose illiquid assets were financed by short-term liquid liabilities might spread quickly to other institutions and markets.

- ❖ **Wholesale activities take place on highly segmented markets, not all of them having the potential to cause substantial contagion.**

Wholesale activities take place on highly segmented markets, e.g., dollar markets and interbank markets. Criticality of wholesale activities crucially depends on the systemic relevance of that market.

- ❖ **Wholesale activities are deemed to be critical if liquidity and funding strains occur for the borrower before alternative sources of credit can be found.**

A wholesale activity might be considered critical if the failing institution had been a major provider of liquidity for wholesale markets and cannot be replaced before liquidity strains emerge.

b) Drivers of criticality

- ❖ **Systemic relevance of the respective wholesale market increases criticality.**

Criticality depends primarily on the systemic relevance of the market. While dollar and interbank markets will be critical in most circumstances, wholesale markets for funding in smaller currencies might not be.

- ❖ **A highly interconnected borrower or lender increases criticality.**

A bank's criticality is likely to be positively related to its interconnectedness with other financial institutions. One of the main experiences of the recent crisis was that a market run on an institution whose illiquid assets were financed by short-term liquid liabilities (i.e., an institution with high wholesale funding ratio) spread quickly and widely to other institutions and markets.

- ❖ **A high market share in wholesale activities increases criticality.**

A bank's distress or failure is more likely to damage other financial market participants if its activities represent a large share of activity in the wholesale market. The larger the market share of the bank the more difficult it is for its activities to be quickly replaced by other banks and therefore a greater chance that its distress or failure would cause disruption to the wholesale activities.

- ❖ **Excessive maturity transformation or leverage increases criticality.**

Short term wholesale funding for large-scale investment in long term, illiquid assets may be critical if the wholesale liabilities cannot be rolled over, and no other funding can be obtained. This might precipitate a fire sale of assets by the troubled firm and a consequential depreciation in asset prices, putting pressure on the balance sheets of institutions with similar assets and triggering a self-enforcing vicious circle.

c) Aspects to consider for the impact assessment

- Which wholesale markets would be affected?
- Are these markets of systemic relevance?

- Which kinds of counterparties provide funding to the bank?
  - Is the funding provided by different lenders (e.g., diversified across countries)?
  - Is the group of lenders small, but are the loan sizes considerable on average?
- Is the funding used for an investment in long term, illiquid assets?
- What is the average size of the wholesale funding?
- What is the average maturity of the wholesale funding?
- Is the loan implicitly or explicitly assumed to get rolled over with the same provider when maturing?
- How quick can the funding be obtained from another provider?
- How many unencumbered assets are available for pledging as security?

d) Aspects to consider for the supply side analysis

- What are the characteristics of the supply side market structure in a particular product and region?
- Are there alternative providers with sufficient expertise in the particular wholesale segment?
  - Do other providers have experience in risk management in regard to products used for wholesale funding?
  - Are other providers able to invest a significant amount of liquidity?
- What kind of collateral is used?
  - What kind of collateral is pledged?
  - Is there a standardised trade and valuation process?
  - Are the collateral arrangements easily transferrable? Does the use of collateral for several loans impede transferability?
  - Does the value of the collateral correlate with counterparty risk?

e) Examples

Type of Activity	Examples for definition of critical wholesale products
Wholesale activities	Wholesale funding / Liquidity: · Money market - Secured - Unsecured · Repo · Securities lending

1.5 Capital Markets activities

a) Scope

- **Capital markets activities refer to the issuance and trading of securities, related advisory services, as well as related services such as prime brokerage. They also include investment of the firm's own capital in private equity or similar principal investments. Such functions might be critical in countries with a high degree of capital market-based financing and a substantial concentration in capital markets-related functions.**

This section covers two main business areas. The first focus of this section is the primary issuance market for securities (including any issuance activities on behalf of sovereigns) and the related advisory services (M&A advisory, debt structure advisory etc.). The second focus is the activities related to trading securities – both on behalf of clients and on the firm's own account. This includes acting as a broker or market maker of securities as well as providing services directly related to this activity such as margin lending and prime brokerage.

- **The payments, clearing and settlement activities of capital markets businesses and wholesale funding markets are considered elsewhere.**

Capital markets activities rely heavily on payments infrastructure. The payments, clearing and settlement portion of capital markets businesses is handled in a separate section, given the close relation between payments for capital markets businesses and other payments markets and infrastructure. Repo, securities lending and other funding for the capital markets are included in the wholesale funding section.

b) Drivers of criticality

- **In primary markets, substitutability is influenced primarily by the number of firms with distribution capacity and expertise in the relevant market; capital base may be a secondary factor.**

Primary markets providers tend to be highly substitutable, as securities are relatively standardised products. Pending deals can be moved to another firm with relative ease provided that the new provider has access to a large investor base, and the delay in a deal does not normally have any systemic impact. In some smaller capital markets, there may be a limited pool of capital markets providers. For very large deals, the substitutability may be constrained by the ability of a firm to hold securities on their balance sheet in an underwriting.

- **In secondary markets, the timeframe for substitution is driven by the transactional intensity on one side and the procedural steps required to transfer client accounts on the other.**

The speed at which the failure of a capital markets activity would be transmitted into the financial system will reflect the ease and speed of substitution relative to the speed at which distress would be transmitted to counterparties, clients and markets. The volume and frequency of transactions is a main driver that would determine how quickly stresses at one firm would be passed on to other firms and markets. Firms are more likely to be critical in markets where a limited number of firms make markets with two-way prices in a given security or derivative exposure. Liquid, more heavily traded products are more easily substituted or transferred to other firms than customised ones and tend to be less critical. Markets in which there are only a limited number of local competitors actively trade will more often have critical players than one in which there is broader competition.

- **Bundled services, credit or liquidity provision on behalf of customers decreases substitutability and increases criticality.**

The inclusion of ancillary products and services in the offering to customers will tend to reduce the portability of client accounts. In some markets, such as prime brokerage, multi-broker relationships of clients will reduce the susceptibility of the market to disruption. The new provider, however, may need to provide cash to the failing provider before taking on the client accounts.

- **Client account portability may be a major factor in many markets.**

The available infrastructure for transferring accounts varies greatly across markets, as do the standards for inter-operability across providers' systems. These factors could be a constraint on the number of accounts that could be transferred in a reasonably short period of time, particularly where the systems for accounts transfer require account-by-account verification or manual processing. Portability is also subject to operational risk (e.g., erroneous data transfers). To reduce risks of erroneous data transfers, manual processing should be the exception.

Special issue: Primary dealers in government securities

Financial institutions differ in the role they play in sovereign and sub-sovereign finance across different countries. There may be special limitations placed on the substitutability of providers in a number of primary markets for government securities.

Special issue: Commodities

Commodities trading may also include exposure to physical commodities as well as highly structured deals involving physical assets. Such deals will differ greatly in their portability relative to more generic commodity exposures.

c) Aspects to consider for the impact assessment

A number of related factors should be considered in the impact assessment for a capital markets business.

- Transaction speed: With what frequency do participants in these markets transact? This may be short (e.g., hours or days) for activities such as market making and the execution of standardised trades or long (e.g., months) for activities such as securitisation, which entails a ramp up period or for complex OTC derivatives trades.
- Type and breadth of customer base: How large and how broad is the customer base? What is the profile of these customers and how does access to the financial services provided impact their business model? Would failure to provide these services result in contagion to other financial firms?
- Leverage of market participants: Markets will be more susceptible to disruption where firms are highly leveraged, as movements in market prices may force other participants to sell positions, further exacerbating the stress on other players.

d) Aspects to consider for the supply side analysis

- Analysis of market supply will consider:
  - Market dominance: a market where activity is highly concentrated in a few firms is more likely to exhibit a lower degree of substitutability. Global capital markets activities in major currencies will tend to have a much larger set of providers than local or niche markets.
    - How large is the share of the principal players?
    - How frequently do players change in terms of their ranking (e.g. league tables for primary markets and volume for secondary markets)?
  - Portability of client business
    - To what degree are services bundled for a given client segment?
    - To what degree are customer transactions highly customised?
    - To what extent is business activity relationship dependent?
  - Capacity constraints of substitute firms
    - Degree to which substitute firms' capacity and infrastructure vary;
    - Degree to which provision of financial activity requires highly specialised skills or infrastructure; relative scarcity of specialised resources;
    - Excess capacity of potential substitute firms;
    - Time frame required for substitute firms to deploy excess capacity;
    - Regulatory constraints that may impede entry of substitute firms or expansion of existing activity.

e) Examples

Type of Activity	Examples for definition of critical capital market products
Capital market	Capital markets: · Secondary markets (cash, FX and derivatives) - Market making - Proprietary position taking · Primary markets (Issuance / Underwriting) - Equity - Debt securities - Other · Prime brokerage · Private equity

2. Potential critical shared services

2.1 Finance-related shared services

Finance-related shared services involve the management of financial resources of the firm. An indicative list is below.

Table: Potential critical finance-related shared services	
a)Treasury/ALM services	· Steering function for the treasury activity (management and monitoring risk appetite, operations steering, defining risk monitoring) · Collateral management, entity refinancing · Reporting function, regulatory liquidity ratios · Medium and long term funding programs, and refinancing of group entities · Refinancing, short term issues
b) Trading/Asset Management	· Operations processing: trade capture, life cycle management · Confirmation, settlement, payment · Position & counterparty management (data reporting, counterparty relationships) · Position management (risk and reconciliation)
c) Risk management and valuation	· Central risk management · Risk management teams, both business line and by risk type · Embedded risk managers · Risk report generation · Risk IT infrastructure and personnel, not covered elsewhere
d) Accounting	· Statutory reporting · Regulatory reporting · Valuation activities for market positions · Management reporting
e) Physical operations, such as cash handling	· Cash and coin · Paper-based processing

2.2 Operational shared services

Operational shared services do not involve financial resources, but provide the necessary infrastructure to enable the firm or parts of it to function. As such, they are not specific to a bank, but can be found in non-financial firms as well. The similarity enables existing frameworks, e.g., those covering enterprise risk management or business continuity planning to be used in order to assess and ensure the availability of these functions in a crisis. However, assessment criteria might need to be extended, e.g., to cover legal or cross-border issues. An indicative list is below.

Table: Potential critical operational shared services	
a) Human resources support	· Payroll · Staff administration (contracts) · Communication for human resources
b) Information Technology	· Data storage and processing · Other IT infrastructure, workstations, telecoms, servers, data centers and related services · Software licenses and application software source code base · Access to external providers (Bloomberg, stock exchanges) · Application maintenance (software application maintenance and related data flows, to be limited to corrective maintenance during the resolution period) · Report generation · User support · Disaster recovery solutions
c) Transaction processing	· Services provided on an intra-group basis, not already covered as a critical function · Legal transactional issues, such as anti-money laundering
d) Real estate provision or management	· Internal facilities management · Access control · Security · Real estate portfolio management
e) Legal services/compliance	· Corporate legal support · Business / transactional legal services · Compliance support