

# The Recovery and Resolution Directive Putting theory into practice



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# Executive summary

The European Union's bank Recovery and Resolution Directive (RRD) was formally passed on 15 April, almost exactly five years since the publication of the Financial Stability Board's (FSB) Principles for Cross-Border Cooperation on Crisis Management. During that time there has been sustained focus on how to make banks more resolvable, and the FSB has developed its 'Key Attributes of Effective Resolution Regimes for Financial Institutions'. While a number of resolution options are available, for most large banking groups, regulators and resolution authorities are very much focused on top down resolution, in particular through the bail-in mechanism whereby certain liabilities will be converted to equity to recapitalise a bank. The more detailed information gathering exercises that were originally required by many authorities to cover a range of resolution options still have their place, but now there is a much clearer focus on the data necessary to implement the top down approach being advocated.

While many banking groups have performed detailed recovery planning, their progress on resolution planning varies, largely as a result of differences in regulatory requirements and expectations in individual countries. This paper focuses on resolution and highlights some of the key areas of focus for senior management, even at banks which are at a more advanced stage in their resolution planning. The requirements will potentially have a significant impact on how banking groups are structured and their information system capabilities. In particular, we expect focus in the following areas:

- **Impact of bail-in on group structure:** the bail-in requirements will require consideration of the level of gone concern loss absorbing capacity (GLAC) required, the impact of where debt is issued within a group, and the cost of funding for the group and individual operating companies within it.

Until now, resolution planning has been seen by some as an important but largely theoretical issue. We believe this will change across all banking groups as the requirements in respect of the quantum and location of loss absorbing capital will affect the ongoing operation and profitability of the business. It is also logical that external creditors and stakeholders (including credit rating agencies (CRAs)) will have more focus on such matters. Banking groups are likely, therefore, to continue to model the potential impacts of legal entity and GLAC structures to ensure that appropriate business decisions are made. This will be both in the context of ensuring resolvability and meeting other regulatory requirements, such as ring-fencing of retail operations, that have a bearing on funding structures.

- **Information requirements:** the RRD and the focus on bail-in have created a need for banks to have the ability to produce, in a short timeframe, significant amounts of information in respect of the quantum of bail-in eligible liabilities and the value of assets and liabilities. These will be required, alongside regulatory capital information, to estimate the extent of the losses suffered and the subsequent bail-in required. It is likely that organisations will need significant enhancements to existing systems and processes in order to be able to provide the required information on a consolidated and individual legal entity basis in the timeframes likely to be necessary. Enhanced systems and processes will need the capability to do this on an ad hoc or intra-month basis and not just at a month end or reporting date.
- **Operational continuity:** keeping the lights on and ensuring the provision of economically critical services is at the heart of resolution. The nature of the current service provision models at many banks means that there may be a number of impediments to the continuity of services in a resolution (for example, the shared nature of IT infrastructure, the ability to retain key staff and termination provisions in contracts). This paper considers some of the options that banks are considering in respect of these impediments, in particular the concept of operational subsidiarisation.

- **Linking resolvability to wider activities:** banks are facing numerous other changes to their group structures as a result of new and higher regulatory capital standards, increasingly localised capital and liquidity requirements imposed in relation to subsidiaries and branches in host jurisdictions, and the decision in some countries to force the separation of retail and investment banking operations within large universal banking groups (i.e. structural reform). Other important issues include efforts to improve data quality, OTC derivatives regulation, and international supervisory cooperation. These issues require focus at the top of house and it is critical that resolvability is considered in conjunction with the other regulatory and business drivers that might be shaping how banking groups are structured on an ongoing basis.

The RRD will be transposed into national legislation by 1 January 2015, with bail-in to enter into force no later than 1 January 2016. Regulators will want, through the FSB, to be able to report significant progress on eradicating 'too big to fail' to the G20 Leaders' Summit in Brisbane in November 2014, and requirements are likely to continue to evolve in the run up to the meeting.

Whilst a number of jurisdictions have settled on bail-in as a key resolution tool, we note that the debate continues in several countries around issues such as the viability of the tool and GLAC levels. However, with the authorities pushing resolvability and structural reform agendas, banks will have to factor resolvability considerations into their strategy and business model. We have highlighted some (although by no means all) of the practical challenges facing banks as they (and the authorities) transition from planning on paper to creating and assessing the capabilities necessary to implement a resolution in practice. The finalisation of the RRD brings this transition one step closer, and as such these issues should be firmly on the agenda of senior management.

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# Bail-in and group structure

Whilst there are a number of resolution strategies available to regulators under the RRD, for most large banking groups, bail-in is likely to be the cornerstone of any resolution. In very broad terms, bail-in is a conversion of one form of liability into equity capital. It serves three purposes: it increases banks' loss absorbency after the point of non-viability has been reached, it creates capital which allows an institution to continue to operate throughout and after a resolution, and specifies the mechanism through which creditors will be linked to losses (though note that it does not provide liquidity for the restructured entity in the period following bail-in). The RRD creates a framework within which such conversions should take place, specifying the types of liabilities which can be bailed-in, the process by which they can be bailed-in, and various elements of conditionality.

The RRD will be passed into national legislation by the start of 2015, enabling the authorities in EU member states to put the theory of resolution into practice, should the need arise. Banks will want to understand how the level and location of loss absorbing capital will affect the ongoing operation and profitability of their business. It is clear that banking analysts, CRAs, creditors and other stakeholders are acutely interested in these issues and we expect their questions and challenges to become more demanding as the authorities release more detail about their thinking. These are important strategic issues and need focus at the top of house. Key considerations are discussed in more detail below.

## Location and level of bail-in

The FSB has articulated two overarching resolution approaches: single point of entry (SPE) and multiple points of entry (MPE). In an SPE resolution, resolution powers are applied at the top parent or holding company level by a single resolution authority in the home country, whereas in an MPE resolution, two or more resolution authorities apply resolution powers to different parts of the group in different countries, with a probable resultant split of the group. Emphasis in the global discussion has broadly been on SPE and some national authorities have publicly stated a preference for this approach for their banks (e.g. the US FDIC<sup>1</sup> and FINMA<sup>2</sup> in Switzerland). This is widely seen as the less complex strategy to execute, given that there is no split to the group and it allows for a consolidated resolution approach, but still involves considerable practical and legal challenges, including the need for cross-border co-operation among the national authorities involved. However, the two strategies are generally accepted as being stylised simplifications of what is, in reality, more likely to be a spectrum of resolution strategies – it should be accepted that any resolution of a global systemically important bank (G-SIB) is likely to be somewhere on this spectrum and may consist of a combination of strategies.

Some banking groups issue most of their debt from an entity at or near the apex of their group structure (HoldCo model) and then 'downstream' the proceeds to operating subsidiaries (OpCos) through intercompany arrangements. Others have operating entities in different jurisdictions and fund themselves largely independently of one another (OpCo model). Banking groups which have a HoldCo funding model are often seen as being more conducive to SPE whilst those with an OpCo funding model are often seen as being more conducive to MPE.

This is clearly a simplified view, and many other factors such as the geographical spread of an organisation, the business activities undertaken, and the current operational and legal entity structure will be important. The views of home and host authorities will be critical and, in particular, the likelihood of cooperation will be an important determinant of an SPE/MPE strategy. In the absence of a clear cooperation agreement between home and host authorities in which hosts recognise the home authorities' ability to carry out an SPE resolution, the SPE route will be difficult to execute. While ensuring regulatory demands are met and resolution can be facilitated, we would also expect banking groups to consider different options from a profitability and return on equity perspective. This will allow banks to make properly informed strategic decisions and, as a minimum, to understand the full impact of regulatory requirements to be fully understood. We explore specific areas for consideration below.

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Banks will actively want to understand how the level and location of loss absorbing capital will affect the ongoing operation and profitability of their business.

1 [http://www.fdic.gov/news/board/2013/2013-12-10\\_notice\\_dis-b\\_fr.pdf](http://www.fdic.gov/news/board/2013/2013-12-10_notice_dis-b_fr.pdf)

2 <http://www.finma.ch/e/finma/publikationen/Documents/pos-sanierung-abwicklung-20130807-e.pdf>

### **Impact of bail-in and location of debt issuance on funding costs**

The implementation of a credible bail-in tool is expected to affect funding costs for G-SIBs: the tool removes (or at least reduces) the implicit government subsidy and creates a realistic prospect of the conversion of creditors to equity holders. In addition, creditors logically should increase pressure on the group to provide information that will enable them to make informed investment decisions in this context, therefore giving rise to a premium for complexity, as described below.

There are a number of competing forces that may increase or decrease the funding cost impact depending on the location of bail-in-able debt in the group structure. For example, in the HoldCo funding model, in theory, external debtholders would only bear losses once the HoldCo's equity is exhausted – as the HoldCo's equity is expected to be greater than in any individual OpCo, external debtholders are likely to suffer losses at a later stage in a HoldCo model as there would be a thicker cushion of equity to absorb losses. In an OpCo funding model, losses in any operating company are more likely to affect external debtholders as there would be less (intercompany) equity to be exhausted.

Of course, this would in theory also affect the cost of equity – by moving funding to the HoldCo level, equity holders will be more likely to bear losses that may previously have been borne by debtholders at the OpCo level.

### **Impact of bail-in and location of debt issuance on credit assessment and market reaction**

It is our expectation that whilst external stakeholders, both debtholders and equity shareholders, will become increasingly cognisant of the changed risk profiles they face in moving to a HoldCo funding structure, accurately quantifying and pricing for them is a real challenge. Indeed, effective credit assessment becomes increasingly difficult, particularly when operating assets are held in a different legal entity to the liabilities that fund them, and this will be reflected in the required return and price – creditors may charge a premium to compensate for any lack of visibility over the risks in the assets they are backing. Taking this into account, moving to a HoldCo model could in fact result in an increased cost of debt and potentially a ratings downgrade.

It is likely that organisations will need to provide more visibility into the actual risks they are facing and it is difficult to predict how different stakeholders will react. For example, in a situation where the HoldCo has two operating companies, a retail bank and an investment bank, some debtholders may see the risk of debt at the HoldCo being reduced through diversification. Others may wish to have greater visibility of the underlying performance of the operating companies which, if not provided, may actually increase the cost of funding at the HoldCo level.

These competing effects on funding costs are discussed in more detail in the Appendix.

### **Level of (gone concern) loss absorbing capacity**

There are a number of different terms which refer to the level of loss absorbing capacity that an entity is required to maintain in order to improve resolvability, including the idea of GLAC. For example, the RRD refers to the Minimum Requirement for Eligible Liabilities (MREL) (and references a calculation based on gross liabilities) whilst the UK government has proposed Primary Loss Absorbing Capacity (PLAC) (based on a percentage of RWAs).

Whilst national authorities and the FSB will continue to develop the definitions and their expectations in respect of GLAC, in our view, banks will already be modelling the impact on their current/proposed structures using a range of possible outcomes. This will provide banking groups with a view of key issues within their structure that may need to be addressed.

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## There are a number of areas that banking groups may want to influence, and understanding the potential impact on their own legal entity structure will facilitate these discussions with the authorities.

Whilst many groups are likely to have sufficient GLAC on a consolidated level, the distribution of the relevant liabilities may be such that shortfalls occur in certain legal entities. It will be important to estimate the level of additional injections that may be required due either to the way the business is structured or the fact that additional requirements may be introduced by host regulators across a banking group's global footprint. For example a retail banking subsidiary funded by customer deposits may have limited liabilities that are eligible for bail-in and hence may need additional injections of GLAC. This may be a matter of redirecting eligible liabilities around the group, but in turn there may be other regulatory and tax impediments to this.

### Clarification of loss absorbing capacity

As stated above, the authorities are in the process of developing their guidance – with the FSB in the lead at the international level, developing proposals on a harmonised framework for GLAC. There are a number of areas that banking groups may want to influence, and understanding the potential impact on their own legal entity structure will facilitate these discussions with the authorities. Examples include:

- Inclusion of equity in loss absorbing capacity: There remains debate in respect of whether banks could opt to hold more equity rather than specifically GLAC, or whether a minimum amount of debt will be required over and above any level of equity capital. The outcome could have a significant impact on the nature and level of debt and on the incentives for banking groups to have Common Equity Tier 1 capital ratios well in excess of the regulatory requirements.
- Inclusion of intercompany debt in GLAC: There is a working assumption that internal debt will count towards GLAC at the subsidiary level and indeed for an SPE strategy to operate, this would have to be the case. However the acceptability of internal debt to host authorities will need to be confirmed.
- The consequences of a breach of GLAC requirements: This would need to be agreed with the authorities as would the timeframe over which GLAC would be expected to be replenished following a bail-in.

# Information challenges

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It is clear that certain elements will be a challenge for banks and will require forward planning and, in some cases, significant investment in the underlying IT infrastructure.

The RRD brings into effect significant data requirements on banks. Banks that are already required to provide recovery and resolution plans will already understand the extent of information required and the ongoing enhancements required to keep this up to date. As the authorities and banks now turn their attention to the information that will be required to effect a resolution and in particular, enact a bail-in strategy, it is clear that certain elements will be a challenge for banks and will require forward planning and, in some cases, significant investment in the underlying IT infrastructure.

The implementation of a bail-in requires the authorities to be able to achieve several things: to establish quickly the capital shortfall that needs to be met; to identify the eligible liabilities available to be bailed-in; to calculate the write down required to address the capital gap; to calculate the resulting capital ratios to ensure the target is reached; and to perform a counterfactual valuation to assess creditor compensation claims. This requires information in respect of eligible liability quantification, balance sheet valuation, risk-weighted asset (RWA) calculation and regulatory capital assessments. We discuss some of these requirements below.

## **Liability quantification – the bail-in stack**

Liability quantification requires identification and quantification of bail-in liabilities. This is the component of the full valuation process to which the RRD gives most clarity, providing for a minimum requirement and setting out the exclusions to eligible liabilities. The RRD Annex, setting out information that may be requested as part of the resolution plan, contains liability details, including identification of eligible liabilities. Such information has already been requested by authorities in some jurisdictions (e.g. the UK) and we expect to see this become a standard part of the resolution pack.

This will require banks to be able to extract eligible liability data quickly and regularly. While this is, in theory, a simple data extraction exercise, in our experience it is something that many banks find challenging. For example, for debt issuance data, difficulties arise from the need to pull together information across systems (e.g. reconciling data in books and records to external issuance information) and the need to extract data that was previously not key to management and hence not easily assessable in critical systems (e.g. non-standard terms and conditions, original maturity). We also expect banks to face difficulties in extracting information about other liabilities on a real time basis, given that many financial accounting processes are structured around month end reporting.

There was much industry discussion as to the eligibility of specific liability classes for bail-in. There are a range of liabilities which are explicitly excluded, and – to further complicate matters – there will also be a degree of national discretion. The liabilities which cannot be bailed-in include insured deposits, secured liabilities, interbank liabilities with less than seven days original maturity, liabilities to trade creditors for critical services, and others. There is then a further clause allowing resolution authorities to exclude other liabilities in exceptional circumstances, such as that it is not possible to bail-in the liability within a reasonable timeframe. It is likely that resolution authorities will argue these criteria are met in the case of derivatives, but it is also possible that this could be argued in the case of uninsured deposits. There are conditions attached to such exclusions, given that the funds made unavailable by exempting these liabilities may need to be found from elsewhere.

## **Valuation**

Bail-in will require a full bank valuation in very short order. Clearly, the valuation of a G-SIB in a short timeframe is immensely challenging and would be an achievement for which no precedent exists. Given the short timeframes likely to be involved, and the extent of the data required for the valuation of a large bank, the institution's own valuation systems and processes are likely to be used as the basis, and these will need to be tailored to meet the various needs of the valuation process, in a way which will go well beyond business as usual (BAU) arrangements. Few financial institutions' systems are currently capable of achieving this, and the costs of implementing the necessary systems may be significant – the question here is how far resolution authorities will feel the need to push this issue.



The RRD requires a definitive “fair, prudent and realistic valuation of the assets and liabilities of the institution”. Where this is not possible in advance of resolution, a provisional valuation is to be used, incorporating a buffer for additional losses. Where a provisional valuation has been made prior to resolution, an independent valuation is to be carried out ex post to provide a definitive valuation. In addition, a counterfactual valuation for the purposes of no creditor worse off (NCWO)<sup>3</sup> safeguards is to be carried out after the resolution. We have presented the specific valuations we believe will be required in a bail-in in the table below.

**Table 1. Overview of valuations we expect may be required in a bail-in**

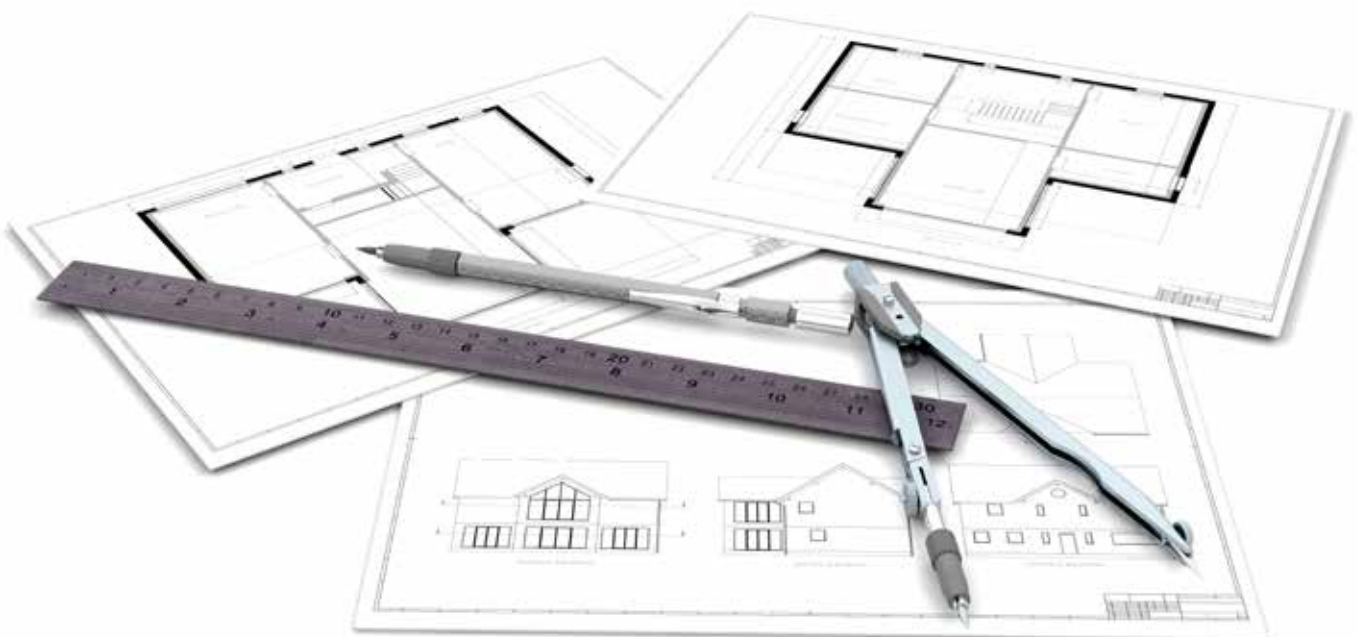
Valuation	Key purpose	Description	Likely timing and responsibility
Ex ante BAU valuations and preparation	Preparedness for resolution	As part of recovery and resolution planning, banks will be required to demonstrate that they have built the required framework to facilitate a short-order valuation. This will include testing of systems and processes in order to demonstrate that potential delays in the production of valuation data are not an impediment to resolvability.	Ongoing BAU.  Banks will be responsible, with the authorities challenging and using advisors where required.
Preliminary counter-factual valuation	Estimation of the NCWO claim	It is important for the authorities to estimate any NCWO claim arising, in order to adequately consider the costs of the resolution. This valuation is therefore a preliminary estimate of creditor recoveries in insolvency/administration.	During the severe stress period in the run up to resolution.  The authorities will perform this valuation, using advisors to obtain data from the bank.
Preliminary going concern valuation	Determination of the loss and capital shortfall	This valuation is a balance sheet based valuation in order to identify the shortfall that needs to be addressed.	Within a short period (e.g. weeks) of entering resolution.
	Setting the terms of the bail-in	The terms of the bail-in will be set to ensure that the target capital ratio is achieved; therefore this valuation will take the asset section of the balance sheet above but solve the liability portion for the recapitalisation.	The resolution authority will be responsible for these valuations, however there will clearly be dependency on bank staff and management. External advisors may also be used.
Definitive valuation	Determine any ex post adjustment mechanism	Valuation of the balance sheet at the point of resolution in order to finalise the extent to which each creditor class will be bailed-in – i.e. this will drive any ex post adjustment mechanism.	Within an extended, though still rapid period post resolution (e.g. several months).  The resolution authority will be responsible for these valuations, however there will clearly be dependency on bank staff and management. External advisors may also be used.
Counterfactual valuation	Set any compensation due to creditors	This valuation is the final estimate of the initial NCWO valuation above and will drive any compensation due to creditors with reference to what they would have received in insolvency.	Likely to take several years (e.g. 3-5) post resolution.  An independent valuer will be appointed to carry out this valuation.

<sup>3</sup> No Creditor Worse Off (NCWO) is a safeguard included in the RRD to ensure that creditors fare no worse in resolution than they would have done in insolvency. The authorities will therefore need to estimate the “counterfactual” – i.e. what creditors would have got in insolvency – to compare creditor recoveries to that expected in resolution. Compensation will be payable should there be a shortfall.

The RRD is largely silent on valuation methodology, with the EBA to be responsible for developing draft regulatory technical standards on methodologies and the calculation of buffers for additional losses in the context of provisional valuation. There are a number of valuation methodologies that could be adopted; each is likely to be required for different valuation purposes. As a result banks will be required to consider the ability to produce the information required in short order. Examples of different valuation methodologies required include: "Fire sale" disposal values, "Fair value" as prescribed by accounting standards, "Run-off/Impaired cost" values, and stressed loss values. Each of the valuations listed in Table 1 above essentially requires the ability to produce a balance sheet in short order under a variety of different bases. Note that the valuation work will also require RWA and regulatory capital assessments.

Valuation presents a key challenge for banks. Issues that we expect banks to consider include:

- The ability to produce information required under the different valuation methodologies in short order. Each will have a different purpose, timing, data requirement, and system capability.
- The ability to produce financial information on an intra-month basis. The systems and processes at many banks are geared around month end. Not only will intra-month balance sheets be required (thus stepping out of the BAU reporting processes), but it is likely that the authorities will expect to be able to adjust the resulting valuations, overlaying their own stresses or reflecting conditions that have given rise to the resolution-causing loss(es).
- The ability to produce the required information on a consolidated and individual legal entity basis and the resources required to produce the above in a resolution scenario.



# Operational continuity

Operational continuity – keeping the lights on, and the provision of economically critical services – is at the heart of resolution. Banks will need to demonstrate that vital infrastructure and operations will continue to be provided throughout the resolution process.

As part of the process of identifying and removing impediments to resolvability the continuity of critical functions will be crucial. Unfortunately, the nature of many large banking groups' current service provision models means that there may be a number of such impediments which may cause significant disruption to the continuity of services in a resolution.

Among some of the most common issues we see are:

*Complex technology models:* the interconnected and shared nature of IT infrastructure, systems and data may mean that access to, or separation of, technology infrastructure could be affected. A bank's customers may also have more than one relationship with different parts of the bank, introducing data protection issues around the access to and ownership of customer data.

*The ability to retain key employees:* a resolution event may impair a bank's ability to retain employees, including those deemed crucial to ensure operational continuity. Furthermore, employees may provide services to more than one part of the bank; in the event of resolution it may not be possible to separate out these shared services quickly.

*Premises lease termination provisions:* banks may lease a large number of premises, including offices, banks branches and data centres. In the event of non-payment due to resolution, landlords may have the legal right to withdraw access to properties or terminate leases which may be relied upon by key operations and services. In addition, premises may be used by more than one part of the bank, which would be difficult to separate in resolution.

*Third-party contract termination provisions:* Third-party supplier contracts for goods and services relied upon for critical operations may contain termination clauses (e.g. upon non-payment or insolvency) and change of control provisions, which would put the provision of these goods and services at risk. Such contracts may also be shared across the bank, and untangling these intra-group arrangements in order to transfer them to a new party over a resolution weekend may not be possible.

## How to address these impediments

There are a number of possible solutions to address these and various other impediments to operational continuity, but these will of course be specific to each bank depending upon its services model. For any given model, there are a number of key questions that should be considered in relation to the available options to achieve operational continuity:

- Does the model make it possible to continue operations following the resolution weekend?
- Does the model enable parts of the bank (or business lines of the bank) to remain solvent when other parts fail in an orderly manner?
- Does the model enable the bank (or business lines of the bank) to fail in an orderly manner without causing other financial institutions to fail?
- Does the model facilitate the implementation of potential resolution strategies?
- Does the model align with wider strategic objectives?
- Does the model achieve/maintain an efficient and low cost operating base and/or maintain any current efficiencies?
- Does the model facilitate the creation of arm's length service level agreements?

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## Operational subsidiarisation allows banks to meet operational continuity requirements whilst building upon their shared service model, and avoiding the significant task of untangling and separating complex service delivery models.

### Operational subsidiarisation

Operational subsidiarisation (OpSub) is one solution that a number of large UK banks have been exploring to achieve operational continuity, which we look at in more detail in this section. It is by no means the only solution – banks may also look to ensure continuity through other means. Other possible models may involve functions and technology units aligned to jurisdictions or business units, separation and duplication of service provision between trading entities, or ‘centres of excellence’ for key services aligned to trading entities with non-key services in a shared unit. Any solution must of course be specific to each bank depending upon its services models, considering whether it maintains an efficient and low cost operating base and retains current efficiencies.

OpSub allows banks to meet operational continuity requirements whilst building upon their shared service model, and avoiding the significant task of untangling and separating complex service delivery models.

Operational subsidiarisation ensures that key infrastructure relied upon by critical operations is held by an operating subsidiary, structured to enable operational continuity through BAU, resolution and even insolvency, through the following:

- The transfer of infrastructure (technology, employees, premises and contracts) to a separate legal entity (or entities), wholly owned by the corporate group;
- The establishment of arm’s length service level agreements between the OpSub(s) and the entities holding financial assets and liabilities;
- The provision of ex ante funding to meet the OpSub’s normal operating costs and any contingent liabilities in resolution.

### Practical considerations of an operational subsidiarisation model

Through implementation of an OpSub, banks can overcome the infrastructure impediments to resolution and continue to provide critical functions uninterrupted, irrespective of the health of all or part of the bank. However there are a number of practical considerations to factor into whether operational subsidiarisation is the right choice, both in the solution itself and its implementation. Some of these are summarised below:

*Third-party and internal agreements* held by the OpSub would need to be legally robust and designed to ensure the uninterrupted provision of services while resolution actions are being taken. These agreements will require detailed service mapping to identify the scope of services being provided by the OpSub, potentially a mammoth task given the organic growth of many banks and their technology models. The agreements may also need to be drafted or reviewed by external legal counsel to ensure they are sufficiently resilient throughout the resolution process.

*Funding arrangements* are clearly crucial – resolution may affect the flows of funds around a group, and contingent capital may be required, particularly if parts of an OpSub are no longer needed after resolution, requiring ‘right-sizing’, or as a result of income shortfall. A key question is how much liquidity, or access to liquidity, the OpSub would need to maintain continuity while things return to normal.

*Pensions* – the OpSub will need to be independent of joint and several liabilities with the rest of the group.<sup>4</sup> This may manifest itself in a number of ways, but perhaps one of the most significant is as a result of pension liabilities – when many employers share a group-wide defined benefit pension scheme, if one fails the several liabilities of the entire scheme would lie with the other employers. As such, pension arrangements for the OpSub must be addressed.

<sup>4</sup> UK banks face a similar requirement as a result of the Banking Reform Act’s ring-fencing requirements.

*Governance of the entity* will also require thought and a number of questions need to be addressed, particularly in the absence of clear guidance on service entity governance from the regulations. Should there be common directors with the trading entities? If so who will be their employer? Are Non-Executive Directors required to provide independent oversight?

*Jurisdictional requirements* – given the global nature of many banks’ IT and operations, any solution will need to address cross-border continuity, meeting the requirements of relevant host authorities. This will involve appropriate engagement with these authorities, from communication of the planned change, to seeking approvals where required. It may also need extensive legal and tax analysis to understand the impacts of any proposed changes given the complexities in various jurisdictions – a task which should not be underestimated.

Clearly operational subsidiarisation goes a long way to address the issues surrounding operational continuity during resolution; however it is not without risk or cost. Banks must consider the key questions highlighted above and weigh up any practical challenges when deciding upon the appropriate model to overcome operational impediments to resolution.



# Linking resolvability to wider activities

... in resolution planning the expectation will be that data can be provided in very short-order on an ad hoc and regular basis.

## Other regulatory requirements

While the ability to resolve will be a key determinant of any operational and structural changes that are made within an organisation, it is important that these issues are considered with other key drivers of change which may include both internal and external factors.

In particular, in some countries there are already, or are likely to be, requirements to restructure groups and operating models to create ring-fenced or separate retail and capital markets legal entities. The requirements affect many of the same areas as resolution and we would expect most large banking groups to consider the combined impact. Host supervisors are imposing capital and other regulatory requirements on the local operations of large, internationally active banking groups, often trapping liquidity and capital as a result. More generally, the implementation of new regulatory capital requirements, including the leverage ratio, is having a significant impact across global organisations.

Reforms relating to over-the-counter (OTC) derivatives markets – whether through the European Market Infrastructure Regulation (EMIR), Title VII of the Dodd-Frank Act, or equivalent legislation elsewhere – are also causing some large banks to reassess their global booking models for OTC derivatives.

Although undertaking a cumulative impact assessment covering all the relevant regulatory initiatives is clearly very challenging, it is essential to do so, to avoid sub optimal decisions from being made.

## Data quality

Supervisory expectations in relation to data in general are only increasing, and capabilities for resolution purposes are an important aspect of this. The Basel Committee's Principles for Effective Risk Data Aggregation and Risk Reporting (PERDAR)<sup>5</sup> (with which G-SIBs are expected to comply by 2016 – a significant challenge), for instance, state that it is "essential that resolution authorities have access to aggregate risk data that complies with the FSB's Key Attributes of Effective Resolution Regimes for Financial Institutions". As part of its recent review of PERDAR, the Basel Committee recommended that supervisory authorities increase their efforts in relation to PERDAR, including that they should "test banks' capabilities to aggregate and produce reports in stress/crisis scenarios".<sup>6</sup>

We have discussed specific considerations around valuation and associated data requirements above. However, in addition to the challenges in respect of obtaining the required data, there will be additional focus on its quality.

Many banks suffer from similar difficulties in responding to the significant data challenges in that they have a large number of systems and many of the requirements require them to be able to link data across these different sources. In addition, the data requested includes attributes that are often very different to those captured or monitored by the business in BAU (e.g. original term of debt), or that require efficient use of open text (e.g. capturing non-standard contract clauses or criteria around cross-default clauses).

Such data challenges are, to some extent, being front-run by the current asset quality review (AQR) exercise taking place across the EU. Within this exercise, banks (or at least those within the eurozone) are being required to produce unprecedented quantities of data, some of which will overlap with that required for resolution planning. However, there are some important distinctions, though the key one is the speed with which banks will be required to provide the data. In the AQR process, firms have some (albeit limited) time to extract, collate and provide their data, whilst in resolution planning the expectation will be that data can be provided in very short-order on an ad hoc and regular basis.

5 <http://www.bis.org/publ/bcbs239.pdf>

6 <http://www.bis.org/publ/bcbs268.pdf>

### International cooperation

One potential impediment to an effective resolution is largely outside the hands of banks to fix – the likelihood that resolution authorities will cooperate across borders. While the creation of a harmonised set of rules in line with the Key Attributes in theory addresses the basic practical incompatibility of national insolvency regimes, it does not necessarily solve the trickier problem of cross-border trust. The issue of trust is perhaps most pertinent when considering SPE resolution – a pre-requisite for an effective SPE for a cross-border bank is that host authorities trust the home authority to execute a resolution effectively and to consider the effect on host jurisdictions. There is, as yet, no prospect of a set of binding cooperation agreements across borders, implying that a fragmented approach will always be a possibility. Indeed, the perceived fragmentation of the international banking system has been the subject of much discussion in recent years, and control in resolution is an important part of this.

The RRD goes some way towards solving this by creating a framework for cooperation agreements. In respect of intra-EU resolution issues, the Directive imposes obligations on Member States to cooperate with one another through resolution colleges. But once non-EU banks (including the non-EU operations of EU banks) are brought into the equation it is clear that the potential for non-cooperation will not be eliminated entirely – the Directive would allow (non-binding) cooperation agreements to be put in place between EU countries and non-EU countries, but it also gives EU countries the right to refuse to recognise non-EU resolution actions in certain circumstances. This is of course a big concern for the industry, which has argued in favour of a more robust international framework, but the political reality, at least in the short-term, is that a potential lack of cross-border cooperation may drive national authorities to at least require preparation for a nationally-focused resolution.

For eurozone banks, the issue is complicated by the nascent Single Resolution Mechanism (SRM) which is being created as part of the Banking Union. Its development thus far has been fraught with difficulties, many of which are highly political. The recent political agreement on the SRM is a major step forward, but some significant questions remain about the ultimate workings of resolution within the eurozone, particularly given the multiple levels of decision-making required between the ECB, the European Commission, and the prospective Single Resolution Board (SRB) which will assume the role of resolution authority. Under the current agreement, the ECB would make a recommendation to the SRB which would then assess the potential systemic consequences of the situation and may instigate resolution proceedings, delegating some tasks to national resolution authorities. But the decision making procedure is complex, and objections can be raised by various stakeholders at several stages, raising questions about the efficacy of the SRM in a crisis.

# Conclusion

The RRD will be transposed into national legislation by 1 January 2015, with bail-in to enter into force no later than 1 January 2016. Given the completion of the RRD, and recent developments in relation to bank structural reforms, the focus on these areas is only set to increase in the coming months and years, particularly given that regulators internationally through the FSB will want to be able to report significant progress on eradicating 'too big to fail' to the G20 Leaders' Summit in Brisbane in November 2014. Further, the ECB, the SRB and national resolution authorities across the eurozone will be under pressure to make progress on resolvability as part of the drive to complete the Banking Union. Indeed, the results of the ongoing AQR and associated stress tests could conceivably require early resolution activity, albeit before the RRD is universally transposed. With the authorities pushing resolvability and structural reform agendas, banks themselves will have to factor resolvability considerations into their strategy and business model. We have highlighted some (although by no means all) of the practical challenges facing banks as they (and the authorities) transition from planning on paper to creating and assessing the capabilities necessary to implement a resolution in practice. The finalisation of the RRD brings this transition one step closer and as such, these issues should now be firmly on the agenda of senior management.

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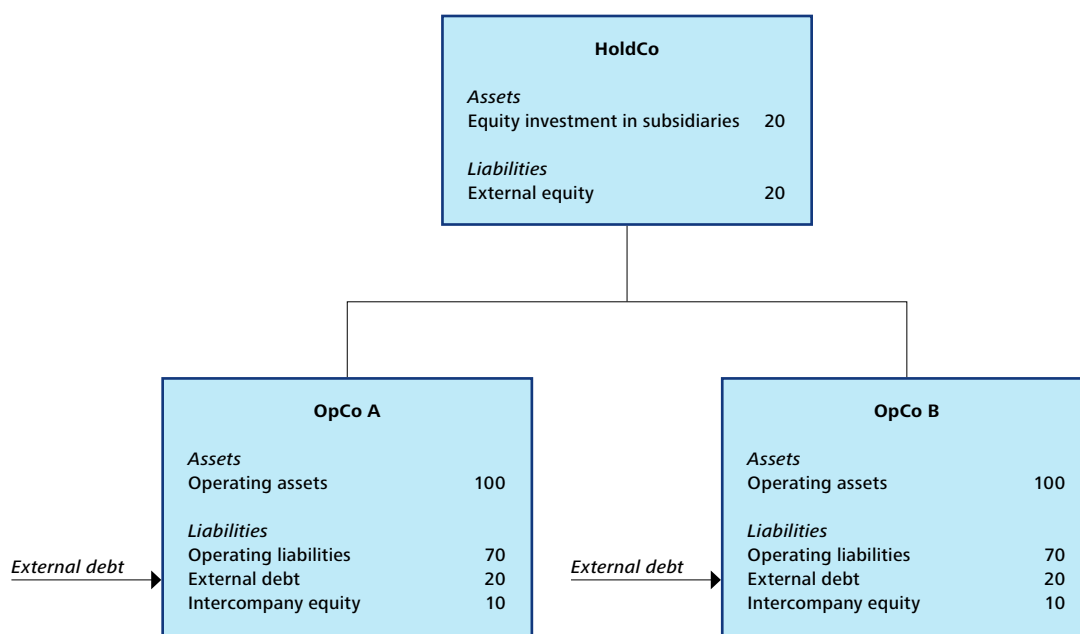
# Appendix – Funding costs

## HoldCo funding – theoretical impact on funding costs and cost of equity

There are two competing effects that may affect funding costs in moving from an OpCo to a HoldCo model: on the one hand, issuing debt at the holding company level should provide a thicker equity cushion before creditors incur a loss, suggesting a fall in funding costs. However, acting against this is the fact that transparency over the information required to perform effective credit assessment under the HoldCo model falls, and the whole credit assessment process is significantly more challenging than under the OpCo model, suggesting a premium may be added to funding costs.

We tackle these competing forces below: the two stylised funding models which follow consider a downward driver on funding costs in a HoldCo model, while the next section considers the impact of a HoldCo model on credit assessment and associated funding impacts.

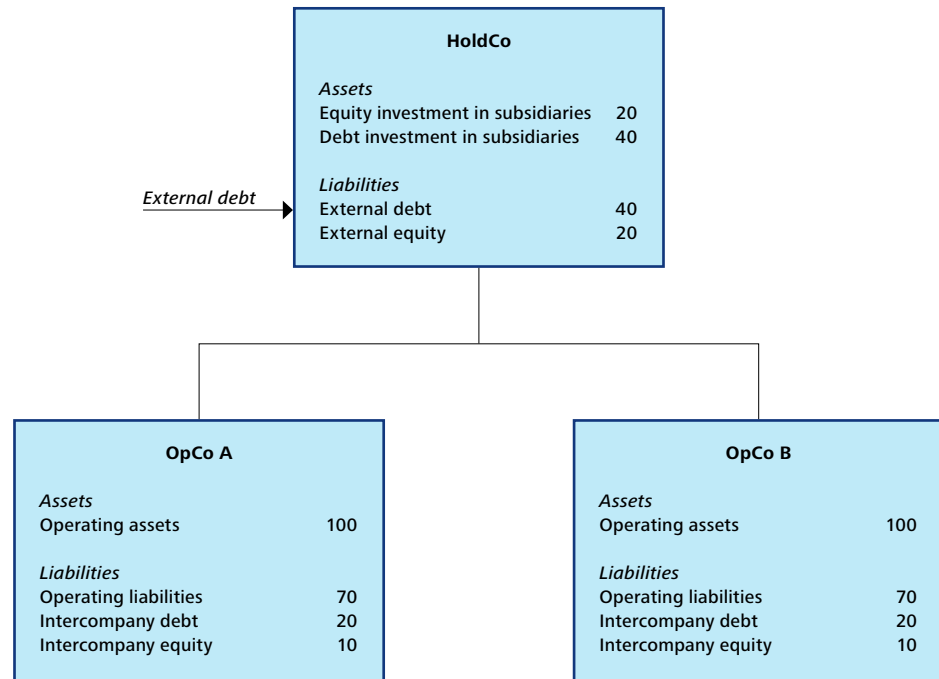
Figure 1. Pure OpCo funding model



Assume OpCo A incurs losses of 30 and is placed into resolution. Intercompany equity bears the loss up to its capacity of 10 and in doing so 'upstreams' the loss to the HoldCo. Thereafter, the residual loss of 20 is applied to OpCo A's external debt holder who faces a write-down of 100%. If we consider this write-down as a percentage of the group's consolidated external debt (i.e. we also factor in the fact that OpCo B issues external debt), the weighted average write-down faced by external creditors as a whole is 50%. So, in summary, external equity holders lose 50%, and external creditors lose 50%.

Now consider a Group that is identical to the first in every way except that all external debt is sourced at the HoldCo and downstreamed to operating entities.

**Figure 2. Pure HoldCo model**



As before, assume OpCo A incurs losses of 30 and is placed into resolution. This time, OpCo A's equity bears losses up to its capacity of 10, in doing so upstreaming them to the HoldCo. Thereafter, the residual loss is applied to OpCo A's intercompany debt liability and again, upstreamed to HoldCo. Within HoldCo, external equity holders bear losses up their capacity of 20 and external creditors absorb the residual loss of 10. In summary, equity faces a 100% write-down whilst external debt holders face 25% write-down (prior to any recapitalisation using the bail-in tool;<sup>7</sup> – incorporating recapitalisation will increase the write-downs up the creditor hierarchy). The impact on external debt holders in this model is lower than in an OpCo funding model due to the thicker equity cushion at HoldCo level.

Clearly this is just one loss scenario, and a full assessment of the risk faced by creditors would require examination of all potential loss scenarios and their probabilities. It is worth noting that this is not a description of the activities executed in a bail-in – it is an explanation of the process of loss allocation. However, it serves to illustrate the general point: external liabilities issued by the HoldCo (in the HoldCo model) benefit from an advantage over the equivalent external liabilities issued by the OpCos under the OpCo model – they only bear losses once HoldCo's equity is depleted and as such, enjoy a thicker cushion of protection. However, this is offset by the fact external equity holders face greater losses in the HoldCo model than in the OpCo model. Losses flow to HoldCo's equity through both intercompany equity and debt, whereas previously they were only exposed to OpCo's equity losses. Note that the risk in the Group's operating assets is unchanged by the funding model and the weighted average cost of funding them is also unchanged. In moving from the OpCo to HoldCo model, exposures to losses are simply shifted from external debt to equity.

<sup>7</sup> Note that we have ignored recapitalisation in both cases for simplicity.

### Credit assessment and the market's reaction

Effective credit assessment relies heavily on information regarding the probability and magnitude of losses arising across the group, which requires information on the nature of its operating assets and liabilities. The information available is inevitably imperfect, and assessment methodologies involve simplified quantitative techniques, but in general better information allows more accurate credit assessment. By implication, when faced with poor quality information, creditors will charge a premium to compensate for any lack of visibility over the risks in the assets they are backing. In our stylised example, visibility over operating assets falls when moving from the OpCo model to the HoldCo model, as the HoldCo is a level removed from the operating activities in the OpCos. In general, the task of credit assessment at the HoldCo level is significantly harder – the HoldCo liability can be thought of as the consolidation of all the previous OpCo liabilities, and is subject to all their risk factors and determinants simultaneously, making an assessment of the HoldCo liability akin to assessing all the OpCo liabilities at the same time. Clearly this is a much harder exercise than under the OpCo model. When combined with the likelihood of lower quality information and reduced visibility of the risk profile of the Group's operating assets, it would not be surprising to see wholesale credit markets charge a premium.

It is likely that banking groups will need to provide more visibility into the actual risks they are facing, and it is difficult to predict how different stakeholders will react. For example, in a situation where the HoldCo has two operating companies, a retail bank and an investment bank, some debt holders may see the risk of debt at the HoldCo being reduced through diversification. Others may wish to have greater visibility of the underlying performance of the operating companies which, if not provided, may actually increase the cost of funding at the HoldCo level.

Announcements from CRAs in relation to resolution in general, and bail-in in particular, have been intermittent as analysts continue to try to disentangle the complex network of factors bearing on the creditworthiness of various forms of bank debt. Authorities and banks alike will be keeping a close eye on CRAs' reviews of perceived government support for 'too big to fail' banks – reduced ratings 'uplift' from government support will be seen by the authorities as a measure of policy success. The concomitant ratings downgrades will likely increase banks' cost of funding. But in general, it appears that the challenge of incorporating resolution and bail-in into their analyses is proving as great for CRAs as it is for other stakeholders.

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