

Recovery & Resolution Planning



"A repeated lesson from the [financial] crisis is that insolvency doesn't work for banks ... Instead, on failure, we must cover losses and recapitalise firms so that they can be reorganised in an orderly way."

**Andrew Gracie, Executive Director,
Resolution, Bank of England, 2014**

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Foreword



Tay Kay Luan

Asian Institute of Chartered Bankers
Chief Executive Officer

About this publication

Given that RRP is a fairly new topic in Malaysia, it's timely to create greater awareness and provide Malaysian banks with useful information and best practices on how RRP can be tailored to suit the banking industry in Malaysia.

One of the key challenges in RRP is that it requires a shift in mindset. Concepts of bail-in and loss absorbing capital, for example, are complex. Stakeholders' buy-in is essential and is dependent on their understanding of the new rules.

As part of this endeavour, the Asian Institute of Chartered Bankers (AICB) is collaborating with PwC to bring you the first in a series of thought leadership to help start a discourse within the Malaysian financial community on how RRP applies in the local context.

Why plan to fail?

If the 2008 financial crisis had taught us anything, it would be that the conventional public bail-out approach needs rethinking. Given the size and global reach of some of these financial institutions (FIs), catastrophic losses had required government bail-out in order to stem systemic risks.

Here's a case in point: at the height of the crisis, the U.S. Federal Reserve committed US\$7.7 trillion to rescuing the financial system¹.

That's more than half of the country's GDP for that year.

Allowing FIs to fail, safely

The exorbitant price of rebuilding confidence and trust was what triggered the thinking behind recovery and resolution planning (RRP). It is likened to a “living will” and aims to achieve two things:

1. Firstly, to minimise the need for public funding when an FI is in severe financial turmoil
2. Secondly, to resolve the FI in an orderly fashion when it eventually fails, without putting severe stress on the financial system

Under RRP, the onus is on the shareholders and creditors of the FI to revive the business. They would be the first to absorb the losses and convert their debts with the distressed FI into equity to help with recapitalisation.

In essence, FIs should not need public support for their recovery planning. The central bank, however, may intervene as a Lender of Last Resort to provide short-term liquidity support.

¹Bloomberg, 2011



Soo Hoo Khoon Yean
PwC Malaysia
Financial Services Leader

RRP for Malaysia?

RRP can equip regulators and FIs with better tools and funding options when the next financial crisis hits. It will also help to protect depositors' interest and keep our government's burden to a minimum.

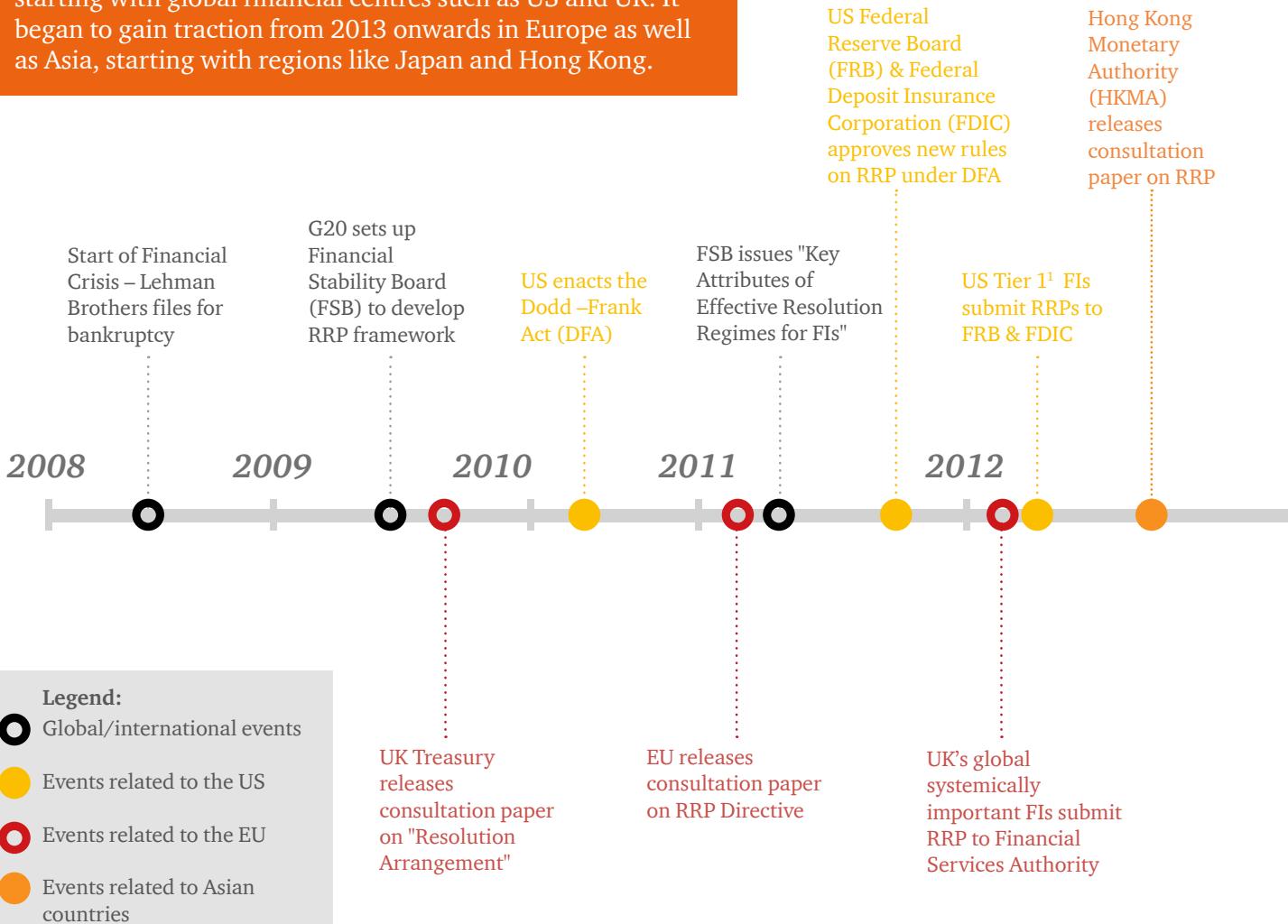
A number of Asian territories heeded the US and EU's move and are starting to adopt RRP. Hong Kong now has a supervisory policy on recovery planning, while the Monetary Authority of Singapore issued a consultation paper on resolution regime earlier this year.

What drives this change is the need to keep public debts low in the wake of the Euro debt crisis. If we were to continue to take the "bail-out" approach when the next financial crisis hits our shores, it could worsen the situation: taking on more public debts to save the FIs could very well lead to a fiscal debt crisis.

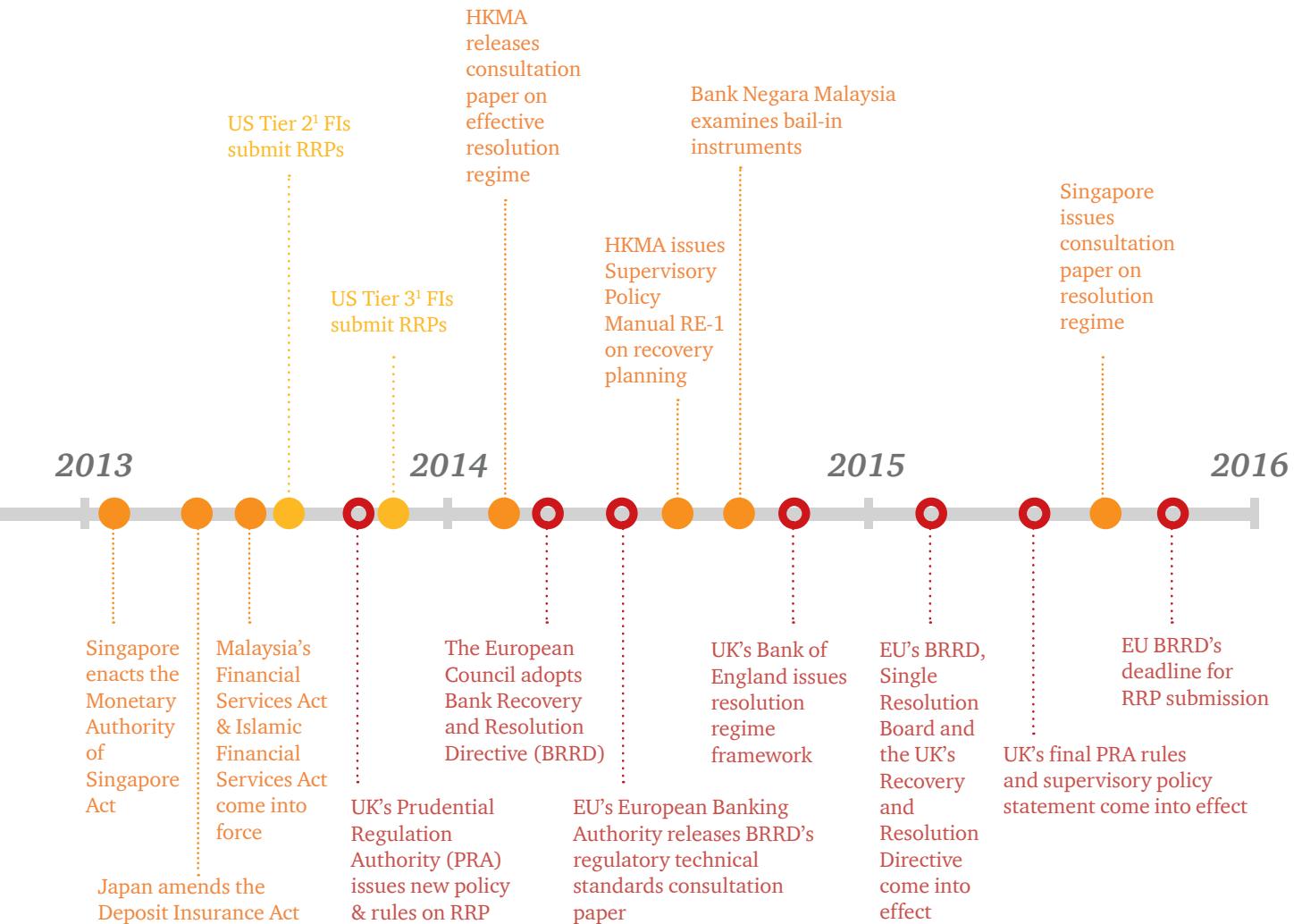


Chart: Recovery and resolution planning development timeline

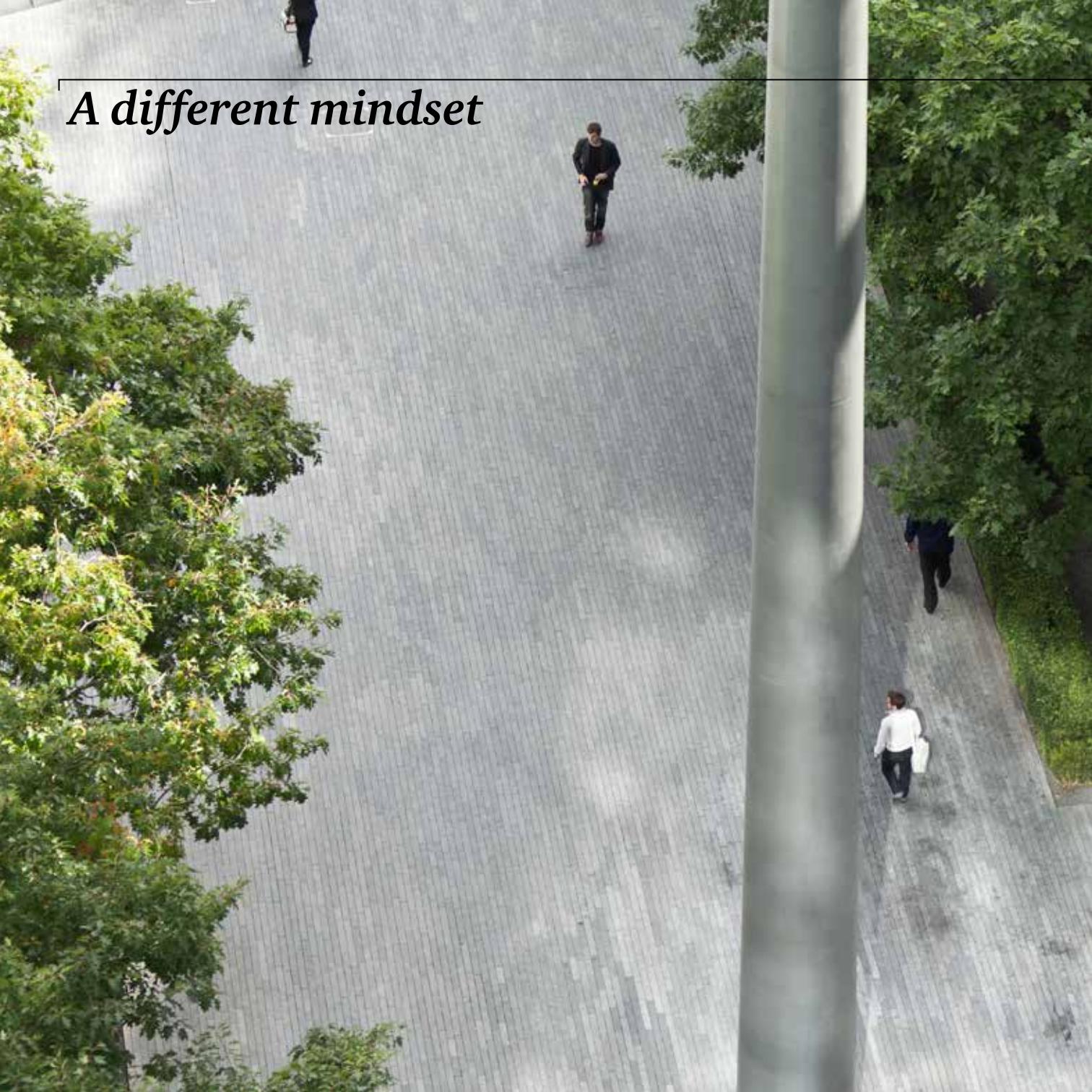
Implementation of recovery and resolution planning (RRP) by financial institutions (FIs) has been an iterative process, starting with global financial centres such as US and UK. It began to gain traction from 2013 onwards in Europe as well as Asia, starting with regions like Japan and Hong Kong.

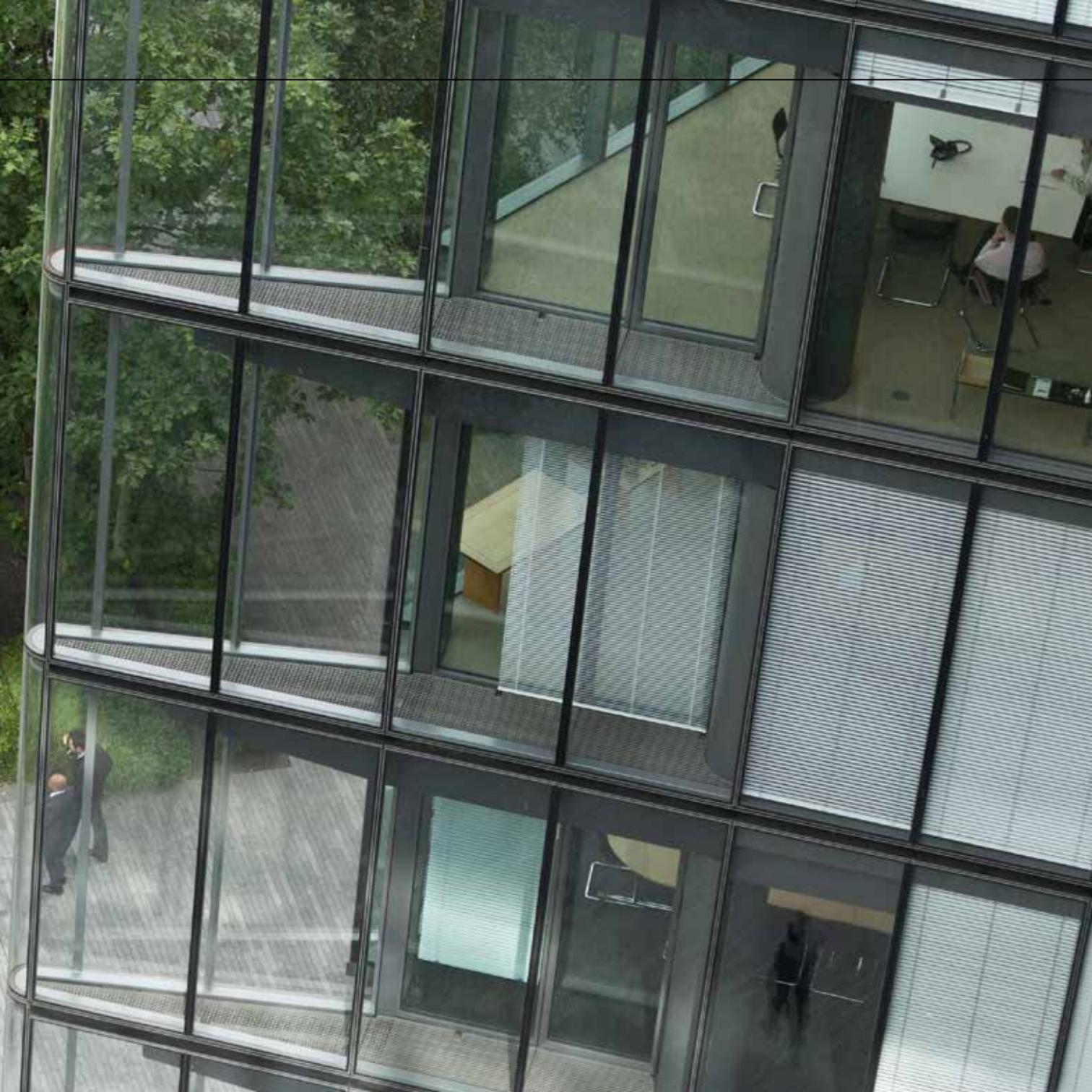


¹ Tier 1 institutions qualify as more than US\$250 billion worth in non-bank assets, Tier 2 between US\$100 billion and US\$250 billion, Tier 3 institutions have less than US\$100 billion.



A different mindset





Most of the elements in recovery and resolution planning (RRP) are not new; many financial institutions (FIs) may have looked at them informally or in isolation under the existing regulatory requirements, for example, stress testing, capital planning buffers and contingency funding (liquidity) plans.

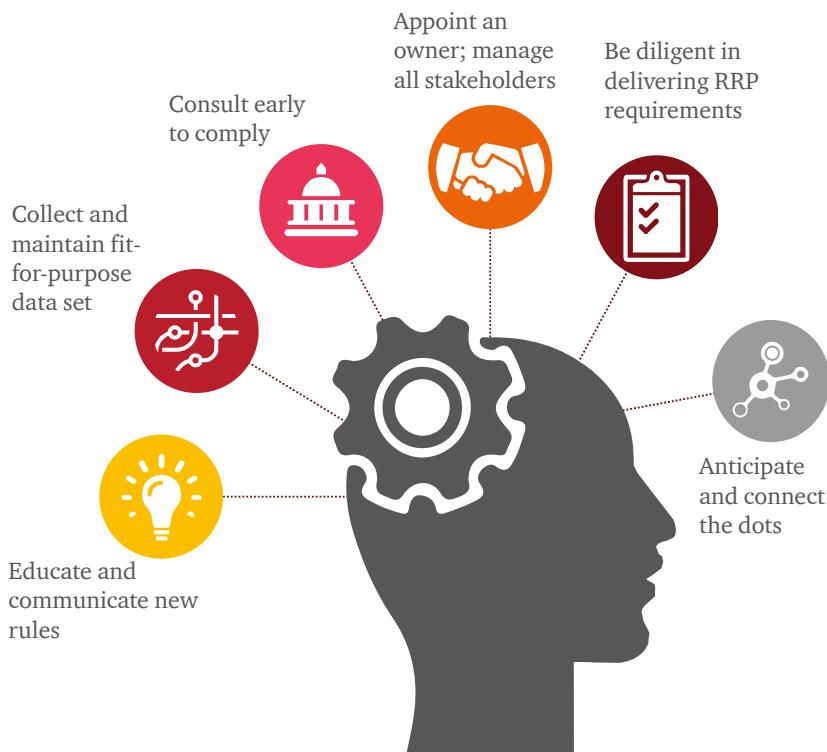
With RRP, there is now a clear need for FIs to formalise the process and develop an integrated prudential framework for financial system supervision.

However, given the broad scope of RRP and the complexity of FIs, the development process for RRP is an arduous one. Just some of the things an FI needs to consider are: identifying critical functions, scenario and stress testing, and inter-group financial support.

For RRP to be meaningful, FIs will need to take on a new mindset (see figure) – one that rethinks its current components and reengineers them to achieve its objectives in times of need.

Figure: A new mindset to financial system supervision

* Details of each new thinking and actions required are discussed on page 15.



Source: PwC

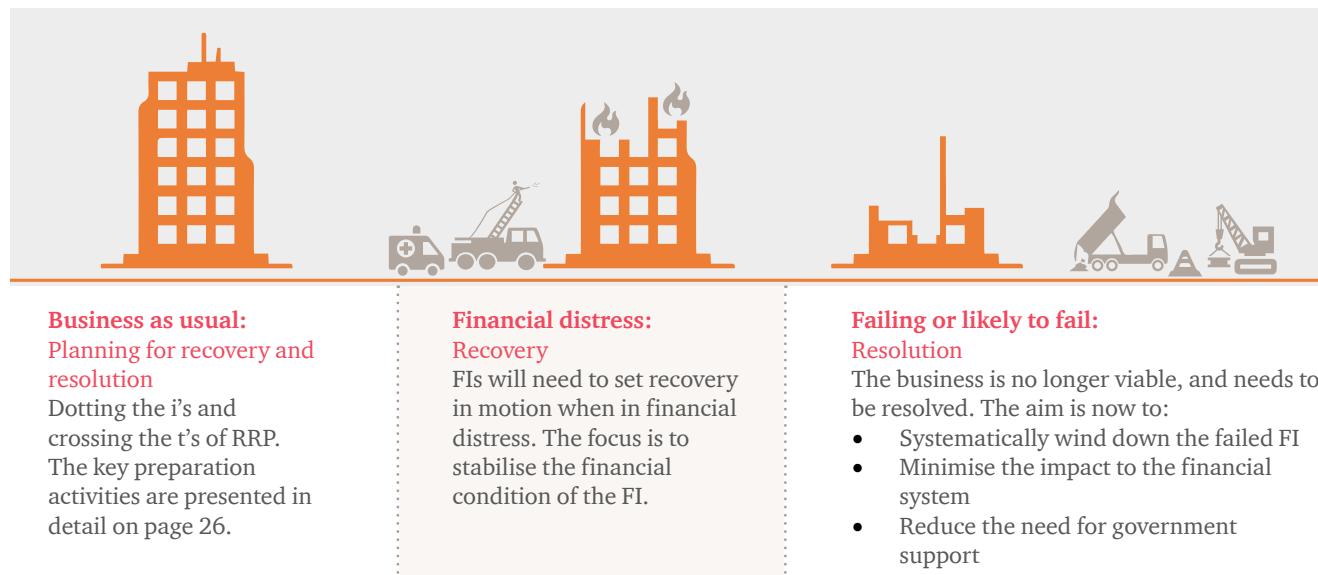
Preparing for the worst

The costly public bail-outs of failing FIs following the global financial crisis highlighted the gaps in conventional risk and crisis management frameworks. FIs simply did not have enough measures in place to respond to a severe crisis, partly because there was an implied government guarantee for losses.

RRP looks to address that. It aims to heighten the awareness of the possibility of failure throughout the business decision making process. It sets out that at the very least, FIs should have plans in place to recover from, or (as a last resort) systematically wind down in the face of such an eventuality.

The different phases under RRP, from financial calm to failure, are outlined below.

Figure: RRP overview



Source: PwC



Financial distress: Recovery

A recovery plan contains a series of predefined options that will be executed by an FI in the face of negative financial shocks. The plan should be integrated into the FI's existing governance framework and processes by:

- Regularly monitoring early warning signs and predefined triggers that would spark actions
- Regularly reviewing and updating the plan. As a guide, recovery plans should be reviewed and resolution information updated at least annually
- Having board/senior governance committee oversight to oversee and approve the plan

In order to facilitate recovery planning, firms will be required to extend their current stress testing in order to consider additional actions that may be taken. This may include instances where the impact or speed of a crisis turns out to be more severe than the scenarios used as part of the current stress testing framework.

Included in part of the recovery process is the draw-up of a potential debt restructuring plan with the firm's creditors.

Table: Recovery plan fact sheet

Situation	Going concern (with risk of failure)
Owner/driver	Management/Board
Scope/perspective	<ul style="list-style-type: none"> • Significant legal entities which conduct core business and systemic activities • Group level/top-down
Objective	<ul style="list-style-type: none"> • Stabilise bank in a market or idiosyncratic crisis (by management) • Identify core businesses • Identify and define triggers • Identify recovery options to mitigate risk of failure • Evaluate viability and credibility of recovery
Key planning measures	<ul style="list-style-type: none"> • Governance and management information systems (MIS) • Stress scenario and development • Vulnerability analysis • Capital and liquidity actions • Asset sales/balance sheet de-risking • Run-off options • Qualitative analysis of actions (impediments, timing, dependencies)

Source: PwC



Failing or likely to fail: Resolution

The resolution plan shows what an FI would do if it fails, and addresses the financial, legal and operational obstacles to resolution. This enables the regulator to make an assessment of the potential effects on financial stability and then determine whether the plan is acceptable.

A sound resolution plan should enable regulators to understand an FI's ownership structure and exposures to, and connections with, other affiliated and unaffiliated entities, markets and payment infrastructures.

The plan should also include an understanding of the legal structure as it will help regulators identify structural and operational issues relevant to the separation of significant entities. FIs are expected to identify barriers to the separation and/or orderly wind-down of each function in resolution, agree these with the resolution authority, and propose ways of eliminating them.

It is also important to understand the scale of each economic function and the potential impact of closing any of the economic functions. This will provide details of which legal entity or entities each function sits within.

Table: Resolution plan fact sheet

Situation	Gone concern (bankruptcy, receivership)
Owner/ driver	Regulatory authorities/Board
Scope/ perspective	<ul style="list-style-type: none"> • All systemically important functions/ activities and significant legal entities • Top-down and bottom-up
Objective	<ul style="list-style-type: none"> • Forced restructuring and efficient resolution (by regulator) • Identify systemic/critical market functions, significant legal entities, and underlying key processes, dependencies • Mitigate contagion risks • Maintain continuity of systemically important functions/activities
Key planning measures	<ul style="list-style-type: none"> • Assessing vulnerabilities in Service Level Agreements with key suppliers – focus on continuity and intellectual property ownership provisions • Extended governance and MIS • Divestitures of parts of the firm • Setting up a bridge bank • Separation of functions/entities • Orderly liquidation • Data pack*

*Examples include data on key functions, legal entity structure, inter-bank exposure for analysis and scenario testing

Source: PwC

Moving forward

So, what are the new ways of thinking that FIs will need to adopt in order to develop a recovery and resolution plan that works for them? Shown in the following table are six actions we think are critical for RRP to succeed.

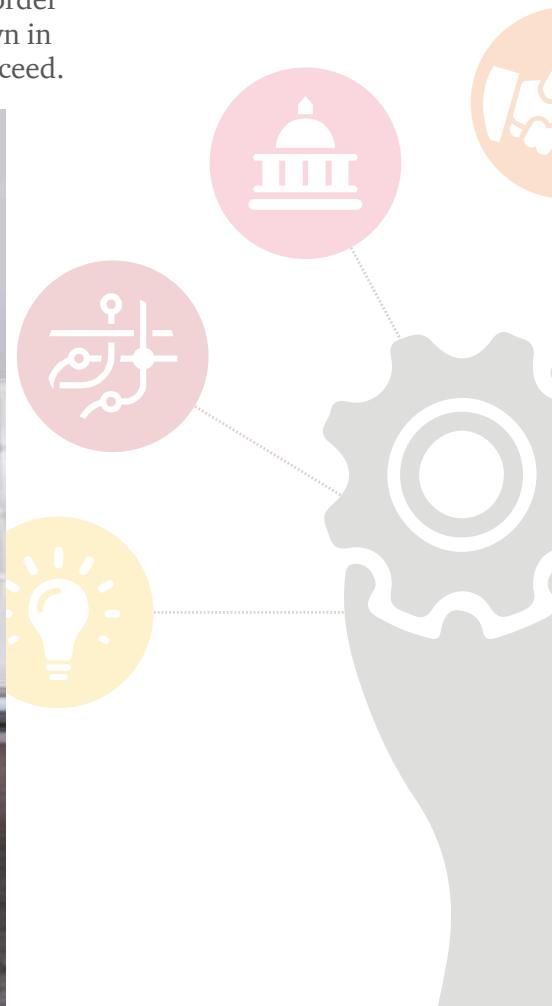


Table: Six critical actions for a successful recovery and resolution plan

Actions	What it means
<p>Educate and communicate new rules The concepts of bail-in and loss absorbing capital, for example, are complex. Stakeholders' buy-in is very much dependent on their understanding of the new rules.</p>	<ul style="list-style-type: none"> • Educate stakeholders (shareholders and bondholders) • Renegotiate capital and debt instruments to include bail-in clause
<p>Collect and maintain fit-for-purpose data set RRP involves significant amount of data collection and detailed analysis. For example, asset valuation is key to the feasibility of recovery options, as in the FI's ownership structure for the preferred resolution strategy.</p>	<ul style="list-style-type: none"> • Assess information requirements • Develop capabilities to run valuations quickly, under short notice
<p>Consult early to comply To help firms prioritise, focus on regulators' key areas of concern.</p>	<ul style="list-style-type: none"> • Engage regulators early on the major areas they're focusing on
<p>Appoint an owner; manage all stakeholders The broad scope and depth of RRP will require extensive resources, senior management engagement, and Board engagement. Significant content creation and internal engagement will be required to finalise and approve the plan.</p>	<ul style="list-style-type: none"> • Appoint an RRP owner, set up a project team, agree on timelines and key milestones • Brief the Board, business units heads, and middle and back offices
<p>Be diligent in delivering RRP requirements These include:</p> <ul style="list-style-type: none"> • Recovery indicators (triggers) • Scenario analysis and testing • Governance framework design 	<ul style="list-style-type: none"> • Set up workshops to discuss triggers, stress testing, recovery options, roles, responsibilities and line of reporting, etc
<p>Anticipate and connect the dots Similar to Business Continuity Management (BCM), RRP is about anticipating incidents and coordinating various operations to develop solutions that protect critical functions in an event of a crisis.</p>	<ul style="list-style-type: none"> • It requires people with a good degree of foresight and understanding of interdependencies between business functions • This ensures a holistic approach and forethought is given in planning for the unexpected

Source: PwC



What's in a plan?

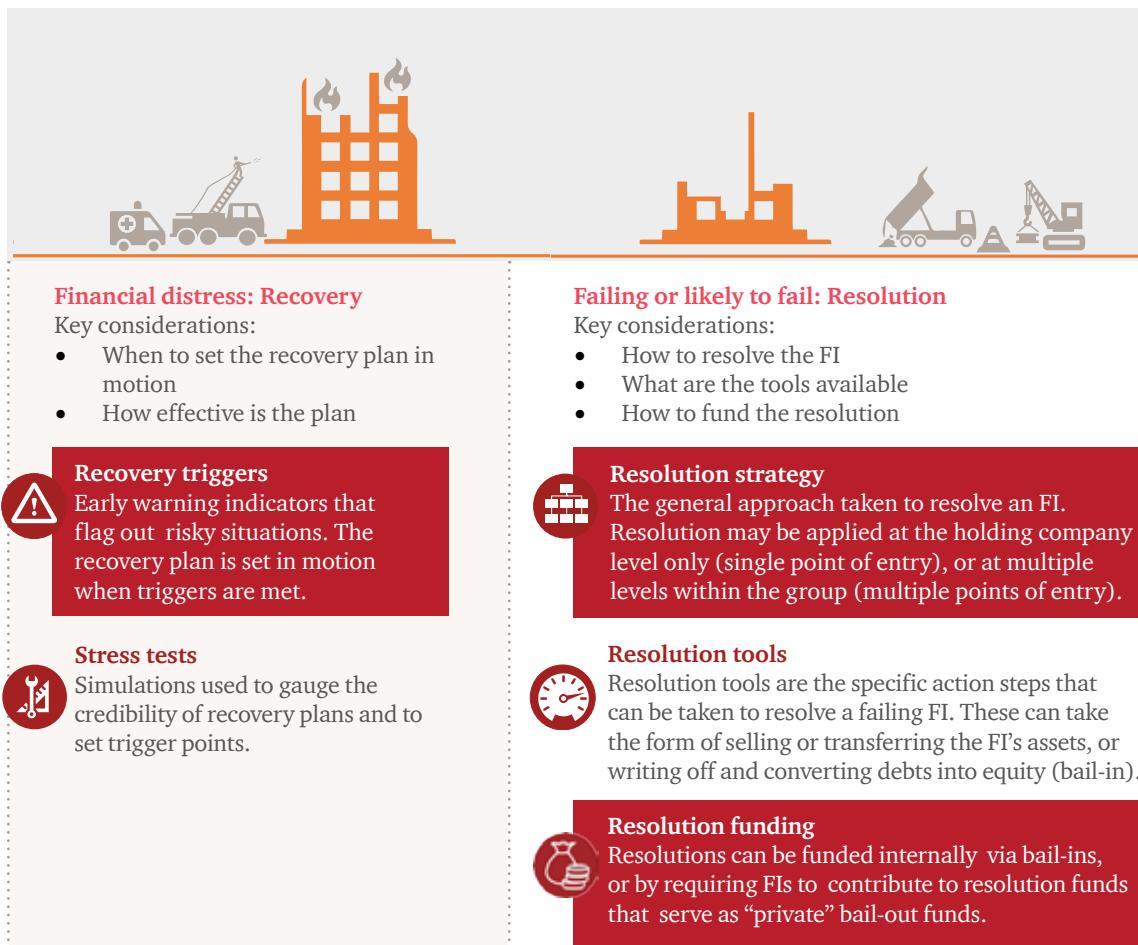


Key components

Getting RRP right is a critical concern for both FIs and regulators. If it is not done properly, we risk turning the RRP into a costly white elephant¹.

So what makes a good RRP? The design of the plan, at the initial stage, will depend on how FIs adapt the following key components within the recovery and resolution process.

Figure: Key components of recovery and resolution



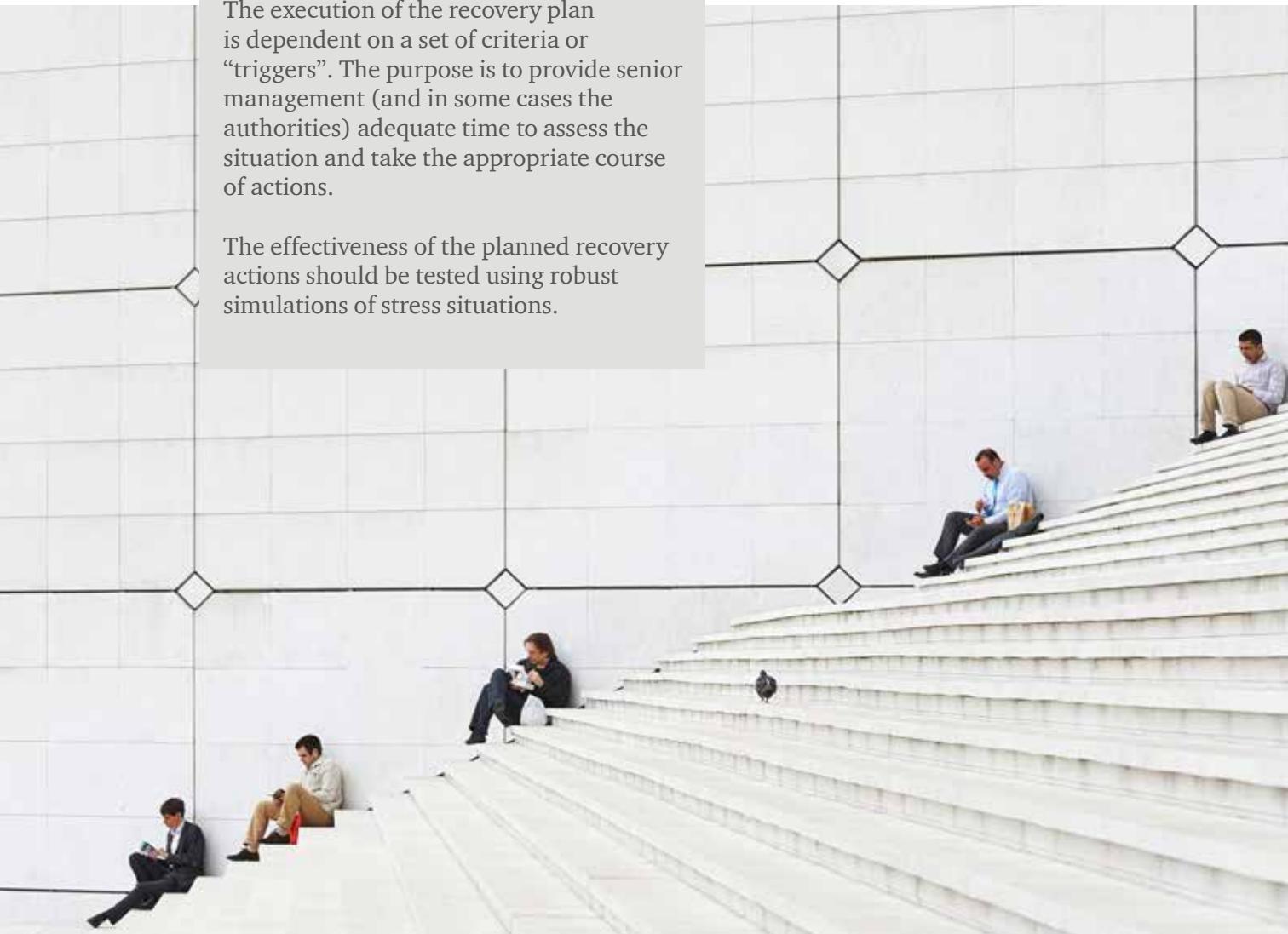
Source: PwC

¹Source: Davis Polk & Wardwell LLP and McKinsey & Company, 'Credible Living Wills: The First Generation'

Key recovery plan components

The execution of the recovery plan is dependent on a set of criteria or “triggers”. The purpose is to provide senior management (and in some cases the authorities) adequate time to assess the situation and take the appropriate course of actions.

The effectiveness of the planned recovery actions should be tested using robust simulations of stress situations.





Recovery triggers

Recovery triggers serve as warnings to provide time and visibility to both senior management and supervisory authorities on the need to intervene or enforce the RRP so that a timely response can be made on a case-by-case basis.

It may prompt the firm to raise discussions with the supervisory authorities on whether a particular recovery action set out in the recovery plan should be implemented.

Note, however, that some systemically important financial institutions (SIFIs) do not identify triggers specifically for recovery purposes. Instead, they rely on their broader risk management framework, in particular early warning indicators, which are part of the firm's internal risk management processes.

Table: Recovery triggers – key areas to look out for

Quantitative triggers

- Ratings downgrades
- Revenue reports or statement of profit and loss (or components of these)
- Credit risk limits
- Equity ratios
- Percent renewal of wholesale financing
- Withdrawal of deposits and other funding
- Increased collateral requirements
- Market-based leverage ratios
- A three-month interbank rate
- Senior debt and subordinated debt spreads

Qualitative triggers

- Requests from counterparties for early redemption of liabilities
- Difficulties in issuing liabilities at current market rates
- An unexpected loss of senior management
- Adverse court rulings
- Negative market press and significant reputational damage

Notes:

The RRP 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.

Source: FSB



Stress tests

Stress testing is an important part of an RRP. The credibility of the plan depends, to some extent, on the stress scenarios employed in the FI's stress tests. These will allow the FI to:

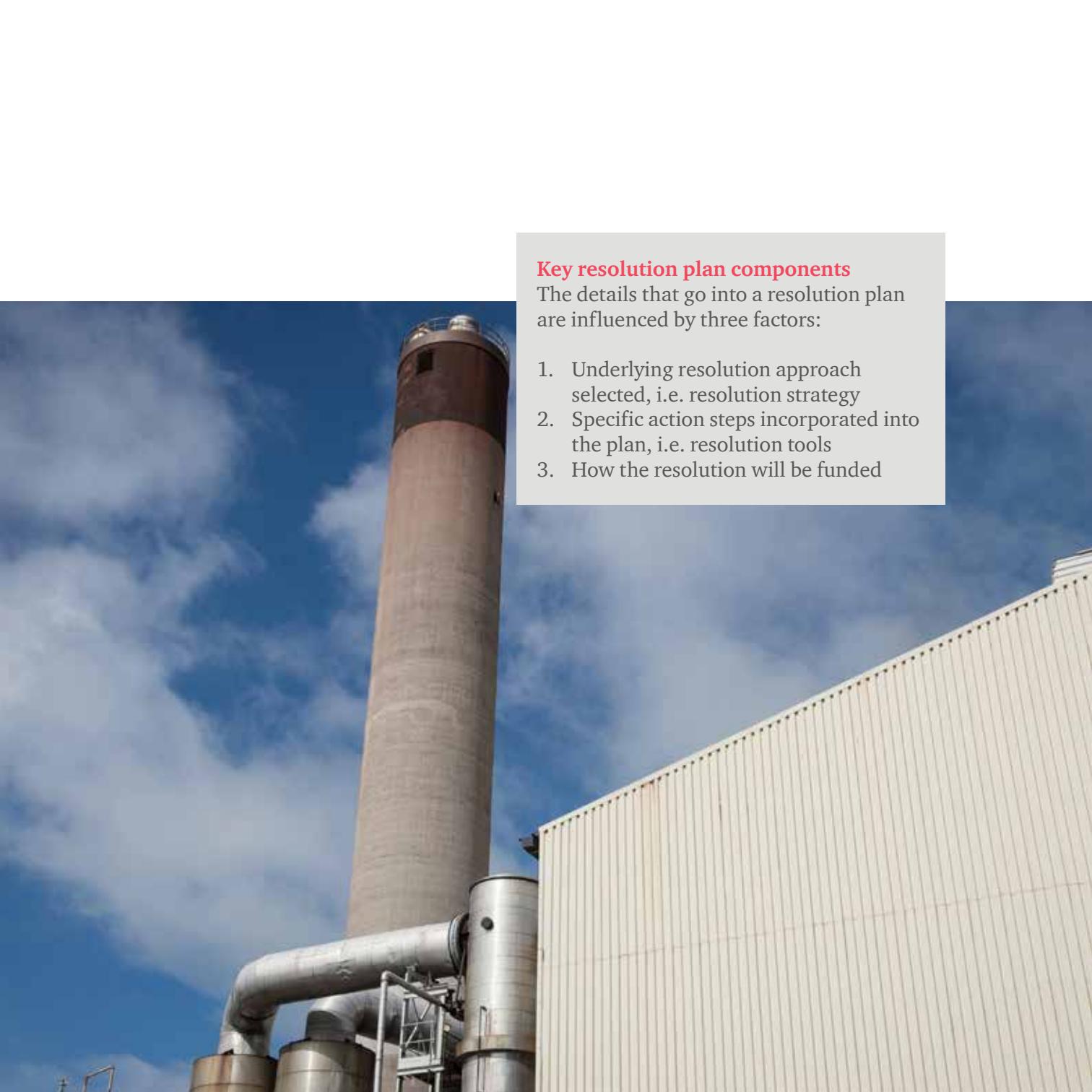
- Assess the effectiveness of recovery and resolution options, when the RRP criteria or “triggers” are met
- Identify obstacles related to the implementation of recovery and resolution measures, e.g. operational or legal impediments
- Address how the obstacles can be resolved

SIFIs typically use two to four stress scenarios for RRP purposes and employ both systemic/market-wide and firm-specific stress scenarios. They tend to include a wide range of components within their various stress scenarios.

Table: SIFI's frequently used scenarios for stress testing

- | | |
|--|--|
| <ul style="list-style-type: none">• Exodus of talent• Severe losses through a rogue trader• Rating downgrades• A Euro or US dollar crisis• Decreasing GDP growth rates• Loss of goodwill• Significant deposit withdrawal or runoff• Significant capital and liquidity impacts | <ul style="list-style-type: none">• Collapse of global financial markets• Rise in public debt• Significant changes in currency rates• Significant changes in commodity prices• Bank failures• Fraud• Reputational crises |
|--|--|

Source: FSB



Key resolution plan components

The details that go into a resolution plan are influenced by three factors:

1. Underlying resolution approach selected, i.e. resolution strategy
2. Specific action steps incorporated into the plan, i.e. resolution tools
3. How the resolution will be funded



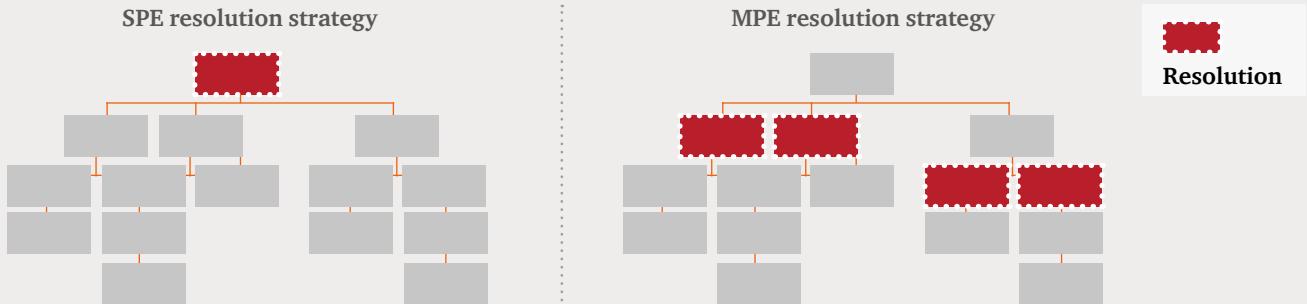
Resolution strategies

There are two widely recognised resolution strategies for the resolution of FIs, namely **single point of entry (SPE)** and the **multiple points of entry (MPE)** approaches.

The SPE approach involves the application of resolution at a single level in the group, usually the ultimate holding company level, by the resolution authority. The SPE approach is especially effective when there is sufficient loss absorbing capacity at the holding company level because it avoids disruption to critical operations as operating subsidiaries do not need to be resolved.

The MPE approach involves the resolution of different parts of the group, each by different authorities. This approach is preferred in cases where resolution barriers exist due to different national regulatory frameworks.

Figure: SPE vs MPE





Resolution tools

Resolution tools are the specific means of resolving a failing institution.

Here are four resolution tools as identified by EU's Bank Recovery and Resolution Directive (BRRD, the EU's RRP framework) which can be applied as-is or in combination with each other:

1. **Sale of business:** transfer of shares or assets to a purchaser on commercial terms.
2. **Asset separation:** transfer of assets to an asset management vehicle controlled by public authorities.
3. **Bridge institution:** transfer of assets and liabilities to set up a new "bridge" institution. The bridge institution is funded via conversion of a portion of the transferred debts into equity.
4. **Bail-in:** write-down or conversion of eligible liabilities into equity to help recapitalize a distressed institution.



Resolution funding

Authorities are increasingly looking to the private sector to bear the costs of resolving distressed FIs.

Two widely proposed ways for shifting the costs of resolution to the private sector are: (i) bail-in funding, and (ii) resolution fund.



Bail-in funding

Bail-ins aim to recapitalise FIs internally via write-down and conversion of liabilities into equity. This effectively strengthens the capital adequacy of the distressed FI, avoiding the need for costly public bail-outs.

Resolution bail-in hierarchies specify the order of liabilities subject to bail-in and allow for an orderly write-down of equity and debt.

The FSB introduced a new concept of **total loss-absorbing capacity (TLAC)** that sets the minimum amount of loss-absorbing liabilities firms should have for recapitalisation purposes in times of distress.

The EU's TLAC variant is the **minimum requirement for own funds and eligible liabilities**, which is set to apply to credit institutions within the BRRD's jurisdiction on a case-by-case basis.

Resolution fund

Resolution funds seek to cover some of the costs of financial crises. Financial authorities are looking to the industry sector to contribute to such “private bail-out” funds. These funds can be sourced before or after a financial crisis, or a combination of both.

Examples of resolution funds include the EU's Single Resolution Fund and the US's Orderly Liquidation Fund.

Putting it together

Success doesn't just happen – it's planned for. The key action points for FIs to consider when planning and preparing for RRP are as follows:

Chart: Key preparation phases for RRP delivery

	Phase 1 : Planning	Phase 2 : Preparation	Phase 3 : Approval
What you need to do	<ul style="list-style-type: none"> • Determine your scope (individual, group, entities), requirements and delivery dates • Appoint an owner, set up a project team, set out timeline with key milestones • Brief the Board, business areas and middle/back office 	<ul style="list-style-type: none"> • Embed RRP into your governance structure • Leverage on existing prudential regulation materials • Engage with regulators • Set up workshops to discuss triggers, recovery options, stress testing, core business lines • Assess information required for resolution pack. • Perform a gap analysis • Review data integrity • Finalise RRP pack • Internal review and challenge • Document RRP 	<ul style="list-style-type: none"> • Present the pack to the Board • Obtain sign-off from the Board /Audit Committee
Recovery plan activities	<ul style="list-style-type: none"> • Study regulatory framework and good practice benchmarks • Understand key risks in delivery • Determine recovery indicators • Analyse data processes and repositories 		
Resolution plan activities	<ul style="list-style-type: none"> • Analyse the group structure/legal entities and economic functions • Review data integrity 		

Source: PwC

Figure: Nine key elements for FIs to consider

Based on our experience working with some of our global SIFI clients, there are nine key elements FIs will need to consider when developing their recovery and resolution plans (see figure).

The pages that follow elaborate what each of these elements mean.



Source: PwC

Figure: Nine key elements for FIs to consider (continued)



Governance structure and oversight

- An RRP needs to include clear **governance over development, maintenance, and execution** of the plan with adequate senior management and/or board involvement and support.
- Specifically, it should include actionable operational procedures with assigned responsibilities and transparent decision making process to monitor and execute the plan when required.
- The plan should be fully embedded into, and form an integral part of the banks' existing overall risk management framework.



Organisation structure

- The identification of **core business lines, material entities, critical functions, and critical shared services** is a key step in recovery planning as it forms the basis and priority on which recovery options can be designed.
- FIs are also required to clearly identify and document the **inter-relationship** among these components.
- FIs should establish a set of assessment criteria for identification of core business lines and material entities. The criteria should include both qualitative and quantitative elements.
- For identification of critical functions, the Financial Stability Board's¹ (FSB) Additional Guidance provides a framework which considers impact assessment, supply side analysis, and firm specific test for critical functions.
- The above will require significant management judgement.



Stress scenarios

- Stress scenarios are required to be built in order to **test the effectiveness, impact and feasibility** of the RRP.
- FIs may consider leveraging their existing stress testing programme as appropriate. However, the scenarios suitable for recovery planning purposes should generally be of a **particularly severe nature**, and likely more so than those existing programmes.
- At minimum, FIs should include three types of stress scenarios: an idiosyncratic scenario, a market-wide scenario, and a combination of the two.
- Reverse stress testing scenarios linked to specific incidents that are related to the bank's recovery triggers can be used as one of the tools for developing scenarios for recovery planning.

Source: PwC

¹An international body established to monitor and make recommendations about the global financial system



Recovery triggers

- FIs are expected to develop and maintain a trigger framework to **identify risks before a severe crisis occurs** and help FIs to restore financial stability. The mechanism should be fully embedded within each FI's existing risk management framework.
- The trigger framework should comprise a mix of qualitative and quantitative indicators that are most relevant to the FI.
- The FI can make reference to FSB and other guidelines for trigger setting. However, significant management judgement is required to ensure the set of triggers suits the FI's own business and operations. Also, it is important to ensure the set of triggers used covers the range of potential threats to the FI's viability.



Recovery options

- FIs should identify and develop a full set of **materials and feasible recovery options** that could play a substantive role in preserving or restoring liquidity and capital levels, and ultimately, going concern viability.
- Recovery options should generally not take longer than six months to take effect. Options that require longer than six months can be outlined as “work-in-progress” with a plan to refine the execution time period.
- The focus of the menu of recovery options should not be a short-term “quick-fix”. Rather, when designing the menu, FIs should take a longer term perspective on the business viability and not focus purely on dealing with immediate stress situations.



Resolution options

- FIs will need to provide information on the group structure, legal entities and economic functions to enable authorities to determine the appropriate strategy.
- FIs should also ensure that the **eligible capital instruments for bail-in are easily identifiable and legally available** in accordance with the contracts.
- The resolution options have to be based on well-founded legal, industry, market and/or historical justifications and should avoid unsubstantiated or simplifying assumptions. It is expected that all decisions taken are justifiable.

Figure: Nine key elements for FIs to consider (continued)



Disposal options and valuation

- Generally, the regulatory authority expects that disposal of a part, and/or the whole of an FI or its assets would be included as one of the FI's recovery options. FIs are expected to plan ahead to ensure such options' feasibility.
- FIs should also consider the likely situation where disposal options will take place under unfavourable conditions or a "fire sale". As such, the assumptions for such disposal options should be made in an **extremely conservative manner**.
- Disposal options are likely one of the more challenging options to implement as they often **involve multiple action points**, such as sales options, internal reviews and approvals, market valuation, readiness of due diligence information, negotiation with buyers, etc. Therefore, the recovery plan should include sufficient details of the actions required to facilitate execution in case a disposal is required. The expected execution time required should be within 6 months as a guide.



Liquidity support plan from central bank

- FIs should not assume any public support for the purpose of their recovery planning. However, the **central bank may act as a Lender of Last Resort (LOLR)** to provide liquidity support to FIs experiencing funding difficulties on a short-term basis.
- FIs, therefore, should give consideration to the circumstances in which they may require access to LOLR support.
- FIs should include information to facilitate an initial assessment of its eligibility for LOLR support from the central bank in the recovery plan. However, again, FIs should not rely on this option as the primary action for recovery purposes.



Communication plan

- FIs are expected to develop a comprehensive communication plan to accompany the deployment of each of the recovery and resolution options. The communication strategy should include, **at a minimum, the identification of key stakeholders, an approach to communication, and personnel assignment for communication**.
- Deployment of a recovery plan could potentially pose a threat to an FI's reputation. Therefore, when designing the communication plan, FIs should carefully consider and address the impact of the communication and recovery action on its reputation, and subsequent knock-on effects, if any.

Source: PwC

Figure: How the table of contents of a RRP could look like

1. Recovery plan summary:
Summary of all relevant sections
2. Governance: Integration with risk management framework.
Includes processes for review and approval of plan
3. Strategic analysis: Identification of critical functions
4. Disposal: Process for determining marketability of core business lines operations
5. Implementation of the plan:
Outlining conditions and procedures to ensure timely implementation
6. Recovery plan options: A range of credible and executable options in the event of stress
7. Plans for accessing central bank facilities
8. Scenario Planning: System-wide and idiosyncratic stress
9. Preparatory measures: Includes measures to facilitate sale of assets and business lines and preparatory measures to facilitate implementation of plan
10. Communication: Communication plan (internal and external) and disclosure plan

1. Group structure/overview of legal entities, Branches and subsidiaries
2. Business model/business lines
3. Capital and funding:
Capital allocation and mobility, Treasury function, intra-group guarantees, encumbrances
4. Activities and operations:
Access to financial market infrastructure, risk management practices, critical shared services

1. Economic functions (economic scale metrics) :
 - Capital markets and investment
 - Wholesale funding markets
 - Payment, clearing, custody and settlement

Recovery

Resolution Part A

Resolution Part B



A Malaysian discourse



Not starting from scratch

The powers that be

Although Malaysia does not currently have a formal RRP framework, Bank Negara Malaysia (BNM) together with Malaysia Deposit Insurance Corporation (PIDM) do have a broad range of powers to intervene and undertake recovery and resolution measures.

Bank Negara Malaysia

The powers conferred to BNM are provided under the Financial Services Act 2013 (2013 FSA), and the Islamic Financial Services Act 2013 (2013 IFSA)

Under FSA 2013, in order to avert or reduce risk of financial failure, BNM has the capacity to remove senior officers, directors and chief executive officers, as well as wind up institutions and assume control over these companies.

The Act also gives BNM a significantly larger purview over non-FIs that pose potential systemic risk to the financial system. They include financial holding companies and non-banking FIs.





Malaysia Deposit Insurance Corporation

PIDM was established to provide protection to bank deposits and insurance and takaful benefits in the event of failure of a licensed member bank, insurer or takaful operator.

This is done through the administration of the privately funded:

- Deposit Insurance Systems for licenced banks
- Takaful and Insurance Benefits Protection System for licenced insurers and takaful operators

In the event of a bank failure, PIDM will provide coverage to the depositors, with a capped rate of RM250,000, which should cover 99% of depositors.

PIDM also has the authority to undertake the resolution of banking institutions and insurers, as may be required based on the assessment of BNM. Once a member institution is deemed to be no longer viable by BNM, PIDM can assume control to resolve the member institution in a manner that minimises costs to the financial system.

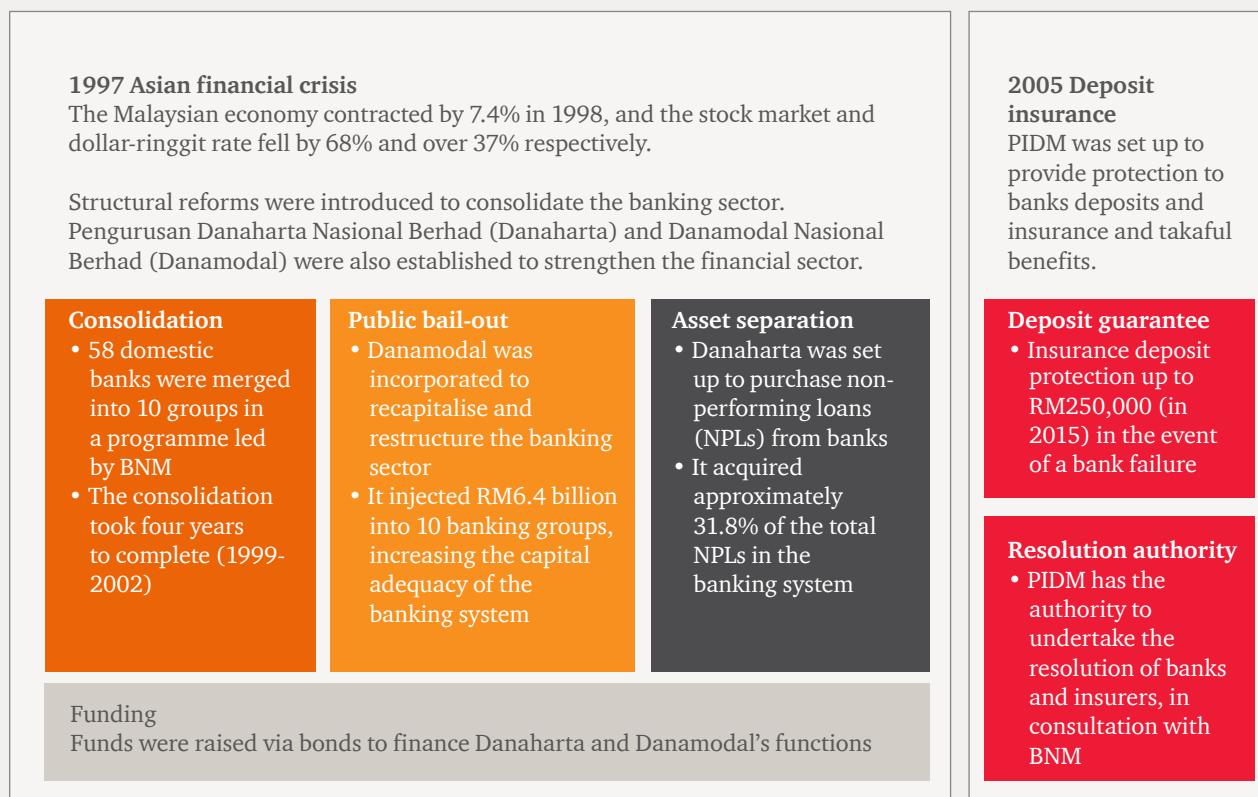
What we already know about financial crises

Malaysia has gone through her fair share of financial crises and distress situations. Two notable ones are the 1997 Asian financial crisis, and the 2008 global financial crisis.

These events have led the Government to implement a series of measures to improve the recovery and resolution process for FIs in Malaysia.

Here are some of the key initiatives taken.

Chart: Past recovery and resolution experience and on-going initiatives



Source: PwC

More about bail-in

BNM is making progress towards issuing standards on bail-in funding as part of its wider RRP initiative. Among the issues the bank is examining are:

1. The condition for capital instruments issued by banking subsidiaries to contain group-level loss absorbency triggers. Currently, qualifying capital instruments issued may be converted into equity or written-off in certain trigger events, namely when capital falls below predetermined levels, or when the bank is declared to be non-viable.
2. The future impact of including a group-level trigger on the ability of banks to raise affordable loss-absorption funding.
3. The role of a group-level trigger in amplifying group contagion risk caused by non-regulated affiliates.

BNM expects to issue the final standards in 2015, while compliance with the minimum group capital requirements are expected to take effect from 1 January 2019.

Source: BNM Financial Stability and Payment Report 2014

2005 Sale of NPLs

BNM issued guidelines on disposal/purchase of NPLs

Sale of assets

- New channels for banks to resolve their NPLs

2008 Global financial crisis

As a pre-emptive measure against capital outflows, a full guarantee of all Ringgit and foreign currency deposits was put in place for banks.

Full deposit guarantee (privately funded, with initial support from the Government)

- PIDM covers up to RM60,000
- The Government covers claims in excess of RM60,000
- PIDM collected additional levy from the banks and remitted the funds to the Government for it to cover the additional guarantee

PIDM in recovery role

- The full deposit guarantee was managed by PIDM from 16 October 2008 to 31 December 2010
- It was a pre-emptive measure to prevent the crisis from getting deeper

2013 FSA/IFSA

New acts to enhance financial sector regulation and supervision

Recovery & resolution powers

- BNM has wider powers to avert or reduce the risk of financial failure

2014-2019 Bail-in

BNM is working on standards for bail-in funding

Issuance of qualifying capital

- Instruments to be converted into equity or written-off to facilitate funding during the resolution process

Learning from experience

Drawing on the 1997 Asian financial crisis, Malaysia should capitalise on what was done well in designing the recovery and resolution framework. Areas for consideration include:

- Strong legal framework in the form of Danaharta Act
- Political will to act on it
- Deploying resources from the centre, i.e. coordinated from Danaharta and Danamodal

Of course, designing the framework will not be without challenges.

Looking at how we've dealt with crises in the past, and the domestic and international practices during these tough times, here are three lessons we've learnt.



Lessons learnt from the 1997 and 2008 financial crises:

1. Resolution options may be more complicated to implement than expected. For example, it took four years to complete the consolidation of the banking sector during the 1997 Asian financial crisis.
2. 'Resolution options' may be used in 'recovery options' as a preemptive measure. For example, PIDM increased the coverage of deposit insurance guarantee during the 2008 global financial crisis to improve confidence in banks and prevent the crisis from getting deeper.
3. The use of insurance deposit levies can be extended to resolution funding. For example, during the 2008 global financial crisis, PIDM collected additional levies from the banks and remitted the funds to the Government for it to cover the additional guarantee.

Key considerations for Malaysia's financial community

I. Roles

What exactly does RRP mean for Malaysia?

For us, RRP encompasses a new approach to prudential regulation. It will require a different set of framework and guidelines than what regulators and FIs are familiar with, such as capital adequacy, liquidity ratio and risk management measures.

The success of RRP in Malaysia will require a concerted effort from both regulators and FIs.

Regulators: setting clear expectations for the industry

The international RRP standards and requirements will need tailoring to fit the local context. They will form the basis for the legal framework and principle guidelines which governs RRP implementation in Malaysia.

The challenge here is in the details. This includes coming up with detailed guidance or scope for determining:

- Triggers
- Stress scenarios
- Recovery options
- Core business lines identification

As the RRP concept is new to regulators and FIs, implementation will be an iterative process, requiring a series of discussion and refinements to reach a suitable form for the Malaysian environment. Continuous engagement between authorities and FIs will help improve the effectiveness of RRP as “living wills”.



FIs: putting resilience and risk management at the forefront of decision making

FIs will need to uncover what may cause them to fail and what it takes to avoid failures.

This means looking at the same set of variables as the regulators – triggers, stress scenarios, core business lines – but from the FI’s own perspective.

FIs will also need to have the interests of the broader stakeholders that depend on them in mind in the event that they do fail. This includes making sure that:

- Creditors’ depositors’ and customers’ interests are safeguarded
- Financial intermediation services and movements of funds continue unabated
- The private sector has access to funds for working capital, investments and economic development purposes



II. Scope

Malaysia has a developed and competitive financial sector, serviced by different groups of FI. They include:

- Large domestic banking groups
- Regional domestic banks
- Foreign banks
- Local niche banks

Each of these groups will require a different RRP prescription to ensure the recovery and resolution approach is fit-for-purpose, reflecting their different interconnectedness and reach. For example:

- **Domestic SIFIs** – their considerable size and wide interconnectedness would require their RRP to be tailored to address their contagion impact on other FIs and the stability of the domestic financial system in times of distress or failure.
- **Regional SIFIs** – this category would encompass FIs that may not be globally systemically important, but would adversely impact economic and financial systems in multiple neighbouring jurisdictions in the event of distress or failure. This includes both domestic and regional foreign banks operating in Malaysia.
- **Other FI groups to consider for RRP include:**
 - **Too-interconnected FIs or credit institutions** – consist of the most connected FIs in specific financial markets such as Islamic banking interbank, derivatives, bond and stock markets. This is one of the scenarios used by International Monetary Fund (IMF) when testing Malaysia's financial contagion risk¹.
 - **Global SIFIs** – further studies may be needed to ascertain the extent of the impact of their domestic operations and how they would factor into the local RRP design. On the surface, global SIFIs have a relatively small presence in the country. However, these FIs operate on a global scale; their resolution would adversely impact the Asian financial sector, which could eventually spill over into Malaysia.
- **Non-banking FIs** – Many banking groups operating in Malaysia have significant insurance operations or are linked to insurance companies (bancassurance). As a result, such banking groups need to factor in the impact of non-banking FIs into their RRP.

¹Source, IMF Malaysia Financial Sector Assessment Program – April 2014

III. Interconnectedness

The process of identifying RRP triggers must take into consideration the unique interconnectedness of the financial system in Malaysia. It will serve as a reference for regulators and FIs to design the right level of quantitative and qualitative triggers to suit the local environment.

Take Japan for instance: one of the main initiatives undertaken by Financial Services Agency (FSA-JP, the RRP supervisory authority) when it set-up the country's RRP framework was to understand the interconnectedness of FIs, within and outside these FIs' associated group¹.

Chart: How interconnectedness fits within the RRP process

Interconnectedness, example of areas to consider:

- Contagion vulnerabilities from bank failures²
- Contagion vulnerabilities within banking groups from:
 - Failure of critical subsidiaries
 - Failure in accessing funds and liquidity in crisis situations
- Impact of bank failures² on non-banking FIs (NBFIs), Labuan offshore FIs, Government-Linked Companies (GLCs), and vice-versa
- Interbank, bond, forex and derivative market vulnerabilities arising from bank and NBFI failures²
- Impact of global and regional contagion risks on Malaysia's FIs and financial system

Similar to stress test scenarios used by regulators and banks, but taken to the extreme. It assumes failures occur.

Impact analysis of the failure on stakeholders
(e.g. financial system, banks, NBFIs, GLCs)

If impact is critical to stakeholders' operations/functions

Action plan is drawn to address the risk and trigger point identified

A form of BCM

RRP

Documentation and monitoring

Source: IMF and PwC

¹ Source: FSA-JP, 'Annual Supervisory Annual Supervisory Policy for Major Banks for Program Year 2013'

² Includes individual and multiple bank failures and conventional and Islamic FI failures

IV. Trigger groups

To help regulators and FIs identify the appropriate triggers, there are three distinct groups to note:

1. **Stress indicators**, for example:
 - Increase in interbank spreads, credit spreads, and Malaysian Government Security spreads
 - Volatility in Bursa Malaysia and bond market
2. **Vulnerability indicators**, for example:
 - Increase in loan deposit ratios
 - Drop in credit ratings
 - Drop in property prices
3. **Resilience indicators**, which are indicators of how the FIs will be affected in the event of adverse shock. These will normally be capital, shareholders' funds and asset quality indicators.

Note: The impact of (1) is immediate, whereas the impact of (2) is potential, i.e. likely in one to two years time.

The stress test scenarios and shock parameters used by BNM, as shown in the table below, can serve as a reference for identifying trigger points for Malaysian FIs.

The appropriate selection of the triggers will depend, among others, on the structural characteristics of the financial system or FIs, and regulator and FI preferences regarding comprehensiveness and coverage.

Table: BNM scenario-based stress test assumptions and shock parameters

For stress tests in general, BNM's scenarios give some leeway. However, key areas of focus include: significant increase in probability of default (PD) and loss given default (LGD) as well as interest rates (up to 250bp) and major currency depreciation.

Macroeconomic & financial Shocks	Key Assumptions and range of shock parameters
Malaysia GDP	<ul style="list-style-type: none"> • More severe than 2009 economic contraction
Revenue	<ul style="list-style-type: none"> • More than 40 percent decline in different revenue segments
Credit Risk	<ul style="list-style-type: none"> • More severe PD and LGD for different loan portfolios, e.g. doubling of current PD, higher downturn LGD than historical experience • Acceleration in the utilisation of committed and contingent facilities of up to 100 percent
Market Risk	<ul style="list-style-type: none"> • Extreme decline in FTSE Bursa Malaysia KLCI • Sharp depreciation in eight major currencies against the ringgit • Interest rate rise shocks (up to 250bp) across different tenures

Source: BNM Financial Stability and Payment System Report 2011, sighted in IMF Malaysia Financial Sector Assessment Program – April 2014

V. Implication for Islamic Banks

Malaysia has emerged as one of the key players in the international Islamic banking scene, and BNM projects that Islamic financing would account for 40% of total financing in Malaysia by 2020¹.

With Islamic banks' emphasis on Shariah compliance, the resolution of these banks in line with international best practices come with their own unique set of challenges. Among the challenges raised by IMF²:

1. Further work will be needed to **clarify the rights and liabilities** that Islamic banking transactions entail in the context of resolution.
2. The **roles of the resolution authority and the Shariah Board** in the resolution of Islamic banks also need to be clarified, in particular:
 - To avoid uncertainties regarding the Shariah compliance of resolution measures
 - To promote the stability of the Islamic financial system, and
 - To support the effectiveness
3. Application of bail-in power to an Islamic bank may prove difficult due to the **limited availability of “bail-inable” liabilities**. For example:
 - Bail-in does not seem possible with restricted investment accounts and asset-backed Sukuk, if these are considered secured liabilities
 - Bail-in will be more feasible in the case of asset based Sukuk and unrestricted investment accounts, since claims are less obviously secured by specific collateral

Furthermore, there is a potential lack of liquidity in times of crisis for recovery purposes, as the Sukuk and Islamic money market in Malaysia is less developed compared to its conventional equivalent.

¹ Source: BNM, Financial Sector Blueprint 2011-2020

² Source: IMF, Islamic Finance: Opportunities, Challenges, and Policy Options, 2015





VI. Cross border resolution

The expansion of Malaysian FIs to regional markets also creates unique challenges relating to recovery and resolution involving financial markets less developed than Malaysia's.

Such jurisdictions are more vulnerable to external shocks, and have limited or no formal RRP framework and tools. Under such circumstances, the cross-border resolution issues FIs need to consider are:

- **Intragroup exposures and financial interdependencies** (for example guarantees and contingent claims) should be managed and reduced so that separation during resolution can occur without significant curtailment of operations. This would help reduce the intragroup contagion impact of resolution.
- **Sufficient loss absorbing capacity** should be made available **at the right location**. This should extend to foreign operations and subsidiaries of FIs. Such loss absorbing capacity may take the form of equity, subordinated debt and other unsecured debt and liabilities.
- **Cross border resolution agreements** should also be drawn up between regulatory authorities in order to define roles and coordinate implementation of resolution strategies involving multiple regional operations.
- Different jurisdictions have **different levels of development** in RRP. This makes it difficult to achieve a consistent approach towards RRP for FIs with regional reach.

Figure: Malaysian banks' exposure to emerging markets

The **top 3** emerging markets:

Indonesia,
Thailand and
Cambodia.

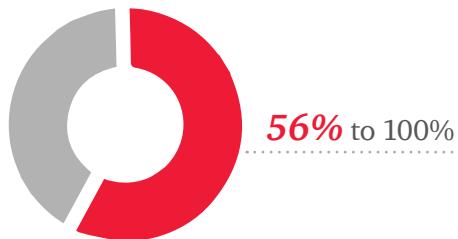


Source: PwC

Emerging markets account for up to:



Local bank's interests in foreign subsidiaries



Thinking ahead

Careful consideration of the local environment is needed in order to anticipate potential setbacks to recovery and resolution measures. This section discusses some of the unanswered questions for regulators and FIs to ponder.



Finding quality shareholders and buyers

There aren't many within the Malaysian private sector who have the appetite to acquire a bank, what more an ailing one. Some key points arising from the lack of buyers:

- In preparing the disposal options, the **limited number of buyers** puts the asset valuation at a disadvantage for the incumbent FI and shareholder.
- Malaysia's financial sector is **very GLC centric**, for example Government-Linked Investment Companies (GLICs) in total own between 16% to 58% of the top five local banks. Dominance of state ownership could be a stumbling block to running an effective recovery and resolution programme. It could imply government financial support, which is what RRP aims to avoid in the first place.
- There are also **foreign ownership restrictions** on local banks. Apart from selected NBFIs and GLICs, foreign institutional investors (e.g. private equity and hedge funds) are the only groups that have deep enough funds and expertise to buy or support ailing banks.

¹Guidelines on the Disposal/Purchase of Non-Performing Loans by Banking Institutions, issued under the Banking and Financial Institutions Act 1989 (now replaced by the FSA 2013 and IFSA 2013)



Lack of depth in the secondary loan market

Due to regulatory restrictions, this means that it may not be feasible for banks to “de-risk” quickly by selling loans. In Malaysia, banks are only permitted to sell their NPLs to non-banking institutions provided that the sale is made in accordance with regulatory requirements¹. This limits the pool of potential buyers and creates additional challenges for recovery options involving sales of NPLs.



Difficulty of fund raising by an ailing bank

This is due in part to the current incurred loss model adopted in Malaysia. Loan provisions are required when there is evidence of impairment.

A trigger event, such as a financial crisis, would result in an immediate recognition of impairment provisions which reflects negatively on a bank's financial results and capital adequacy. This could lead to a downgrade in ratings for the bank, making its instruments unattractive and hindering recovery options.

The situation is further compounded by liquidity shortage during a crisis, making it difficult to raise bonds – a double whammy for banks in distress.



Challenges in market valuation

It's very difficult to forecast the disposal value of FIs or their assets, especially in times of crisis.

This difficulty increases when banks hold illiquid assets. As was seen during the 2008 global financial crisis, the impact of the market penalising distressed sellers was more pronounced for sellers with high illiquidity.



Bail-in implications for NBFIs

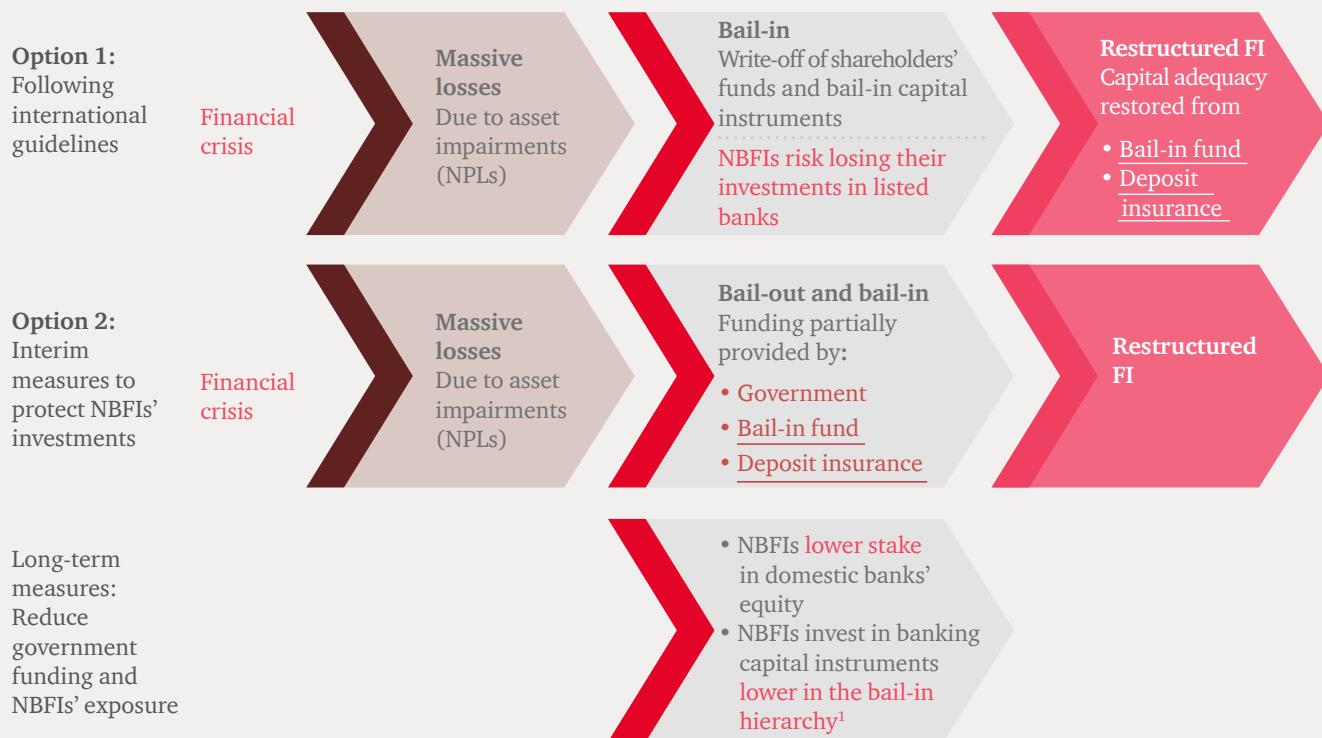
In Malaysia, NBFIs on average hold 34% of listed banks' equity¹. For context, the financial services sector accounts for approximately 11.6% of the country's GDP. This relatively disproportionate investment in banks exposes NBFIs to shocks to the banking sector.

A bail-in event would result in NBFIs having to write-down their investments in the distressed FI. This could mean huge impairment losses for the NBFIs, which puts strain on their financial health.

As the bulk of NBFIs' assets (82%) are held by provident and pension funds and the fund management industry¹, this could put the public and consumers' savings with such funds at risk.

¹Source: BNM, Financial Stability and Payment Systems Report', 2014

Chart: Bail-in resolution options and impact on NBFIs



Source: PwC

¹ For example, during the financial crisis Warren Buffet's holding company Berkshire Hathaway invested US\$5 billion in Goldman Sachs through preferred shares, with warrants.

A word from the bankers



RRP in Malaysia

Recovery planning is necessary as it sets out the steps for getting a failing bank out of financial distress. Most Malaysian banks would already have three of its elements in place –business continuity, liquidity contingency and capital management, perhaps on a fragmented basis. The recovery plan is essentially putting all these together, and for regional financial groups, it will hopefully help to ring fence the impact of crisis to and from its epicentre, when it happens.

As for resolution planning, it is perhaps a question for regulatory authorities to answer: “Would we allow banks to fail?”

With the more “intrusive” supervisory approach that most Asian central bankers take in supervising banks, resolution planning may be an academic exercise.

How does RRP fit into the current risk management framework?

Going back to the three elements of recovery planning, depending on how



"Whether or not RRP would work depends on whether your CEO is going to be involved. In the end, it's all about governance – what people at the top really think, feel and do. The CEO must believe in RRP, and not do it just because he/she has to."

Dr John Lee
Group Chief Risk Officer (GCRO),
Maybank Group

banks are structured, different groups would likely own each of these elements. Take Maybank for example: BCM is owned by Risk/IT/Operation; liquidity contingency by Treasury; and capital management by Finance. Now, the recovery plan will be jointly owned by Risk and Finance, where we have formed a Crisis Management Council co-chaired by Group Chief Finance Officer and GCRO. Depending on the severity of the incident, planned actions are levelled with different hierarchy of oversight.

What are some of the implementation challenges you foresee?

RRP might seem easy on paper. But how would you test it in a “live” scenario? How would you have real conversations about triggers, and not resort to having a theoretical discussion? For example, would you have your shareholder’s support in the event of crisis? These need robust practical considerations. At Maybank, having an

unplanned simulation of BCM, for example, is important to ensure that the plan is sufficiently tested for its strength.

What should banks do to prepare for RRP?

Get ahead of regulatory expectations. And that’s what Maybank has done.

What about regulators?

The focus of RRP should be on outcome, and not process. Take stress testing for example, most banks in the West are going into granular details in order to meet the requirements – to the extent of the exercise becoming an academic one. We should weigh the cost of compliance against the incremental benefits to be derived from these testing. So, depending on what outcome local regulators want our banks to achieve, RRP will need to be tailored to serve this objective.

A principle-based RRP, rather than a prescriptive one, should

be the way forward for Malaysia. Because, eventually, how regulators would judge whether a bank is good or bad is down to the perceived strength of the bank’s governance – not necessarily the sophistication of its risk management mechanism.

In your opinion, what would be the key determinants for a successful RRP?

Firstly, review the three key elements of recovery planning to ensure that they are robust and detailed enough, while still being practical and real about the crisis scenarios.

Secondly, an overarching governance structure – what the escalation process should be, and how to deal with crises when issues are escalated.

Lastly, and most importantly, CEO’s involvement. If the leader takes part in resilience, then the bank will have a plan that will tie them through difficult times, and not just a paper to tick the compliance box.

Why RRP?

One of the core lessons for regulators emerging from the global financial crisis is that no matter how much more resilient things are under Basel III, there may always be risks that neither they nor the bank could have anticipated fully. Banks therefore have to be able to overcome stress periods, and ultimately be prepared to fail without impacting the broader financial system.

Recovery planning establishes a bank's crisis management framework that can swing into action quickly to restore viability. But if that framework is not fully effective, resolution planning ensures that there are tools in place to help the bank be resolved in an orderly manner, mitigating the danger to the economy and costs to taxpayers. However, without the legal powers to put these tools into effect, the RRP framework is not complete.

Recovery planning acts as an integral part of supervision, as it keeps banks safe and sound on a "going concern" basis. Resolution planning complements supervision, by ensuring that a bank can safely fail.

How have things improved under RRP?

Recovery planning has been positive for us. We have defined a clear and effective escalation process so that decision making about crisis management can be made more quickly and with better information. This has enhanced our risk management framework because it assumes a threat to our viability and plans backwards, allowing us to test that the tools that we could deploy would be effective.

Resolution planning, on the other hand, is owned by the regulators. Nonetheless, the process also results in benefits

"FSB is trying to encourage implementation of RRP globally – one of the core requirements is to have a statutory regime for recovery and resolution, including a mandate for authorities to cooperate cross-border and to recognize foreign resolution actions."

Deutsche Bank

to the bank on an ongoing basis – for example, reduced organisational complexity and enhanced data and information availability, which in turn ultimately makes the bank easier to manage – as well as making it better prepared for and quicker to react in a crisis.

Who should be involved?

Recovery and resolution planning involves the whole bank. With regard to recovery planning, the board plays a key role in defining the backstop to the risk appetite of the bank, beyond which it declares the bank in a recovery situation. The board also defines the governance to be applied to effective decision making in a crisis, drawing on an extended crisis response team. While the recovery planning process may have started as a

desktop exercise, over the years it has evolved into something that we engage in across the bank, with ownership at the top. We have made it a fundamental part of risk management, even though it is activated only in a crisis scenario.

Likewise, even though resolution planning is owned by the regulators, it requires the involvement of all affected functions and senior management to ensure the authorities have the right information and can be confident their chosen strategy will be effective.

It is also important not to think of RRP as a one-off exercise. It is an iterative process and has to become an activity that is embedded in risk management and strategic planning. Each time you make changes to the

business, enter new markets or change booking locations, the impact on RRP must be considered.

What is the key challenge for implementation?

For a global bank, one of the key implementation challenges is agreeing with local authorities at which level recovery and resolution planning should be required. For example, for banks which manage capital and liquidity centrally, recovery matters will be managed on the group level and so a group recovery plan is the best option.

Similarly, for resolution planning, if the group resolution authority's strategy for the group envisages taking resolution action at the top level parent company, while stabilising and continuing operations in the rest of the bank, this is best

coordinated through a “single point of entry” approach.

How important is the legal aspect?

The legal framework is a critical success factor to the effective execution of recovery and resolution planning. Supervisors should assess their early intervention frameworks against the Basel Committee on Banking Supervision’s guidance on identifying and dealing with weak banks. Most importantly, resolution regimes should be implemented that are fully consistent with the FSB’s Key Attributes on Effective Resolution Regimes

Most liquidation regimes have the power to transfer assets and create bridge banks, but they rarely have anything that looks like bail-in or ensures operational continuity. In particular, they

often lack the core principle that resolution should always respect: that creditors should be no worse off than they would have been in liquidation. Absence of such a legal framework poses a risk to banks’ resolution strategies and resolution authorities’ ability to carry out their plans.

What are your thoughts on cross border resolution?

While some countries are still in the process of implementing global RRP standards, others do not expect to make major changes in domestic law. With no legal framework in place, the risk that resolution tools are not recognised could have real consequences in terms of home authorities not having confidence that the resolution plan can be put into effect in practice.

The FSB will shortly publish

guidance that specifies the elements that legal and supervisory frameworks should have in place to recognise cross border RRP. Having resolution powers and cross-border mechanisms in place will increasingly become a key test of whether the domestic financial stability framework is complete – e.g. via IMF and World Bank assessments of countries’ financial sectors.

Cross border RRP cooperation is also based on trust. The host regulatory authority has to believe that the home regulatory authority will make decisions in the best interests of wider financial stability and not only domestic creditors. To develop trust, authorities need to have the intention and mandate to support cross-border resolution. This starts with increased dialogue and information sharing.

Advice on setting up RRP?

RRP is a firm-wide initiative that involves various functions such as Risk, Treasury, Legal, regional management, heads of business, and board members. The RRP team coordinates the process, but all relevant functions are involved in the planning for it.

For recovery planning, recovery plans define a crisis governance based on clear backstops (recovery triggers) for the board to determine potential recovery actions. The plan identifies recovery actions that could be undertaken to face different types of stresses (e.g. liquidity or capital or both). In this context, stress testing is a key tool to assess the scenarios that could lead to a near default and test the effectiveness of the recovery plan.

Resolution planning equally touches on a wide range of functions within a bank. However, as the FSB has noted, many of the barriers remaining to making cross-border banks resolvable stem not only from the banks' own internal preparations, but from the current lack of legal frameworks and regulatory cooperation arrangements. Even once these elements are in place, resolution planning will be an iterative process involving the FI, home and host country authorities.





*Recovery and resolution
planning in practice*



Simpler is better - and cheaper

While FSB provides the core elements and guidelines for effective RRP, the actual implementation will vary according to the local legalities, the operating environment and priorities. For example, the US remains unique in requiring firms to prepare resolution strategies to disclose public summaries covering selected key elements.

Nevertheless, there are common propositions emerging from RRP implementation, especially in the US and EU. An important one focuses on the FIs' legal structure and operational model, where FIs are taking steps to reshape their balance sheet by repositioning their strategy. They do this by:

- Focusing on core services
- Realigning the business towards key clients and competencies
- Simplifying their organisation structure and operations
- Exiting from non-core business areas

As in the case of EU, the simplification and exit of non-core services have resulted in cost savings of €25.7 billion for 10 of the larger EU banks, between 2009 and 2014¹.

On the other hand, the creation of non-core divisions has helped FIs to reduce assets, exit off-strategy areas and provide greater direction and customer focus for remaining activities.

Chart: RRP and impact on corporate strategy



Source: PwC

We'll now take a look at how the RRP frameworks of the US and EU compare. These are the two regions with comparatively matured RRP regimes.

¹ Source: PwC, 'Impact of bank structural reforms in Europe - Report for AFME', November 2014

Table: How RRP regimes of the US and EU compare

Country	US	EU
Scope of coverage	<ul style="list-style-type: none"> Banks above US\$50 billion of consolidated assets Selected non-bank financial companies 	<ul style="list-style-type: none"> All credit institutions Investment firm (above €730,000 initial capital)
RRP requirements	Resolution plan only	Both recovery and resolution plans
<ul style="list-style-type: none"> Review cycle and submission 	Annual	Annual
<ul style="list-style-type: none"> Strategic Analysis Requirement 	Yes	No
Resolution strategies	Single-Point-of-Entry (SPE) approach	SPE and Multiple-Point-Entry approach
Critical functions and shared services	Defined in an extensive confidential list	Assessment guided (more guidance/list to follow)
Recovery triggers	i) Failing or likely to fail institutions; ii) Public interest and financial stability; iii) No private alternatives to prevent default	
Resolution methods	Guidelines	Tools (more prescriptive)
Bail-in regulation	Deposit preference as the general principle	
	Total Loss Absorbing Capacity	Minimum Requirement of Eligible Liabilities
Resolution fund	<ul style="list-style-type: none"> Industry funded Ex-post (funding after defaults) 	<ul style="list-style-type: none"> Industry funded Ex-ante (funding before defaults)
Resolution fund usage	Available as borrowings	In conjunction with bail-in procedures only

Source: PwC

The US experience

Based on the resolution plans submitted by the 12 largest FIs operating in the US in July 2015, there was a notable shift towards a Title I SPE strategy among domestic institutions, followed by the bridge bank strategy.

The SPE strategy requires considerable planning to ensure the material entities under the holding company have access to adequate capital and liquidity to stand on their own following the holding company's bankruptcy filing.

Consequently, it is also linked to other regulatory initiatives including:

- Total Loss Absorbing Capacity
- Comprehensive Liquidity Analysis and Review
- Comprehensive Capital Analysis and Review

The advantage of using SPE is that it can preserve more value for all stakeholders, including creditors of the holding company, which continues to own the equity in all the material entities.

How SPE strategy works

- Only the holding company fails
- Interest of the holding company debt holders are converted into equity (bail-in) of a new bridge holding company (Newco)
- Ownership of the operating subsidiaries transferred to the Newco



Source: PwC

The bridge bank strategy allows for the continuation of most operating activities, including servicing deposit accounts, which are transferred to the bridge bank.

The bridge bank's primary goal is to execute the resolution activities and sustain critical operations until they can be transferred, spun-off or wound down.

How Bridge bank strategy works

- Federal Deposit Insurance Corporation (FDIC) is appointed receiver of the bank (under insured depository).
- FDIC divides the assets and liabilities of the bank between:
 - Those that will be left in the receivership; and
 - Those that will be transferred to a bridge bank, which is a newly chartered bank operated by FDIC.
- The bridge bank has a duration of up to two years, with possibility of extension of up to 5 years.



Implementation challenges

Based on the second resolution plans submitted to Federal Reserve Board (FRB) and FDIC in 2013, regulators continue to find significant shortcoming and actions needed to improve FIs' resolvability.

The implementation of RRP is still in the early stages of what is a necessary multi-year, iterative process.

There's still a lot for FIs to do in order to avoid the potential significant consequences of a formal "not credible" determination from regulators.

What's next for the FIs?

Moving forward, firms will need to devote more time and resources to:

- Rethink their operating models
- Begin to implement proposed changes (or at least present a concrete plan for implementation)
- Demonstrate that the proposed changes effectively mitigate the obstacles and improve recoverability
- Revise previously submitted information to reflect any material changes and ensure that sufficient level of details are provided

All these will require greater involvement from the Board and all level of management to meet the regulator's credibility standards, while still meeting ongoing business requirements and achieving required returns.

Key regulatory actions from 2013 US RRP's

- Establishing a rational and less complex legal structure that would take into account the best alignment of legal entities and business lines to improve the firm's resolvability
- Developing a holding company structure that supports resolvability
- Amending, on an industry-wide and firm-specific basis, financial contracts to provide for a stay of certain early termination rights of external counterparties triggered by insolvency proceedings
- Ensuring the continuity of shared services that support critical operations and core business lines throughout the resolution process
- Demonstrating operational capabilities for resolution preparedness, such as the ability to produce reliable information in a timely manner

Source: FRB

The EU experience

EU's Bank Recovery and Resolution Directive (BRRD) does not explicitly prescribe a resolution strategy for FIs, instead leaving it up to them to assess the best strategy for their prevailing group structure.

This means that each individual subsidiary should be separately assessed for RRP and allowed for separate resolution, with collaboration between authorities playing a key role. However, in the interest of avoiding excessive burden on a group who has to prepare RRP at multiple levels, the requirements for the preparation of RRP may be waived on a case-by-case basis.

BRRD impact on banks

Banks can expect the following changes:

1. Drive a wider focus on resolvability – requiring banks to change their structures, operations and financing, under pressure from supervisors.
2. Require greater clarity on where bail-in capital is held and in what forms – about the contractual terms governing conversion/deployment, and the precise mechanisms for transmission around a group. Because bail-in must occur before public funds can be tapped, having this clarity will be particularly important.
3. Require new contributions to build an industry resolution fund – the balance sheet impacts of these contributions will need to be assessed.

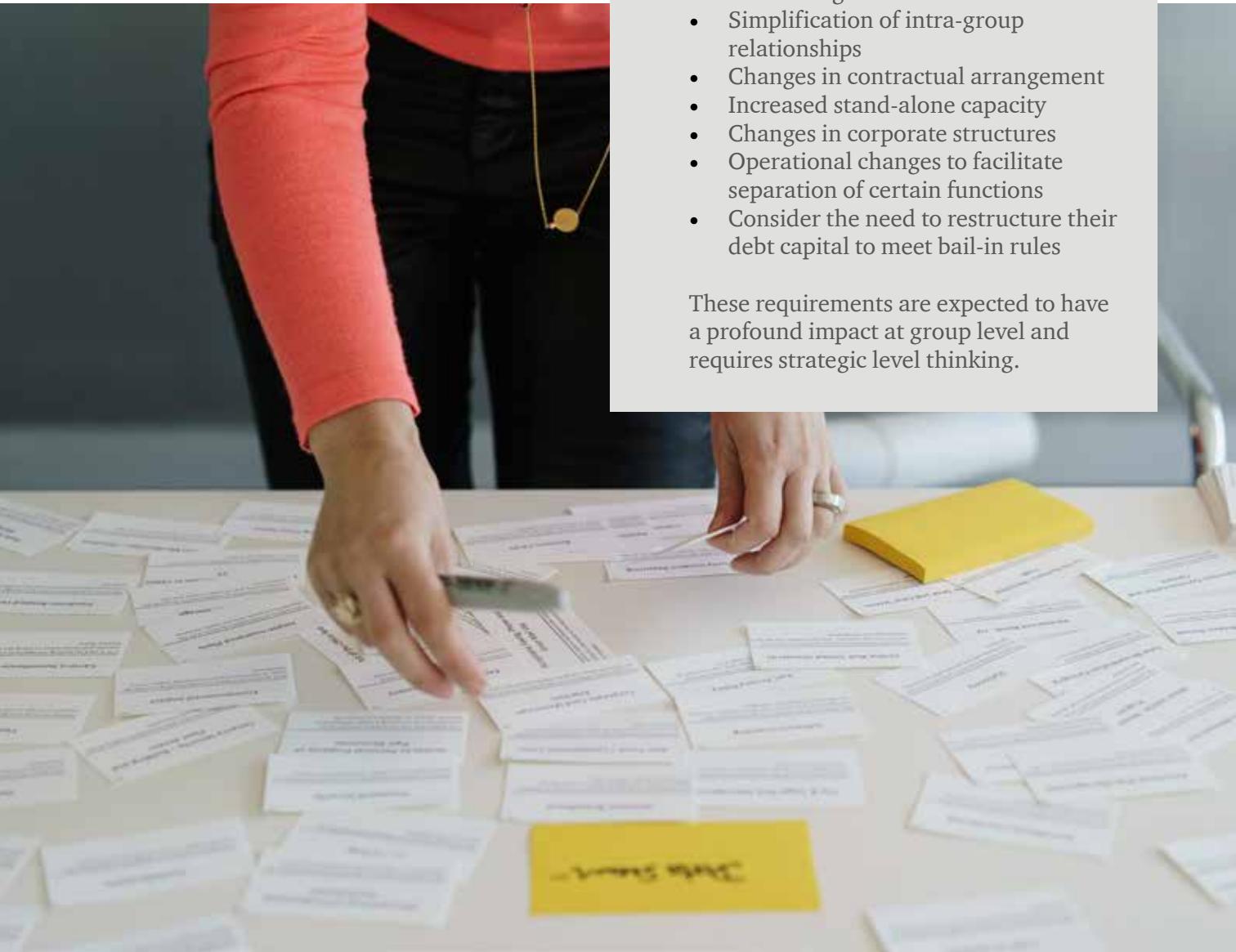
What's already changing?

FIs are beginning to make structural changes in order to reduce systemic risk and improve resolvability. This can be seen in a number of areas:

- The increased use of subsidiaries over branches;
- The growing subsidiarisation of booking models;
- The creation of organisational structures to facilitate bail-in; and
- The development of independent service companies to promote operational continuity.

FIs are also simplifying and aligning core services through organisational changes. Nine of the ten large representative banks studied have restructured their investment banking business since 2009 to sharpen their focus on key clients and services.

Whilst organisational change strategies have varied by institution, a number of firms have recently brought investment banking and corporate banking activities together. These changes may need to be undone in the face of structural reform and ring-fencing.



What's next for FIs?

Here are the required actions to address BRRD challenges:

- Simplification of intra-group relationships
- Changes in contractual arrangement
- Increased stand-alone capacity
- Changes in corporate structures
- Operational changes to facilitate separation of certain functions
- Consider the need to restructure their debt capital to meet bail-in rules

These requirements are expected to have a profound impact at group level and requires strategic level thinking.

No one-size-fits-all

Asian financial hubs, such as Japan, Hong Kong and Singapore, have heeded the US and EU's move towards RRP.

One thing becomes apparent when we compare the RRP regimes across these countries: each regime has a different set of key focus areas. Generally, what works for one country may not be optimal for another, which reinforces the need to tailor global RRP standards to fit the local context.

Chart: Selected countries' RRP regimes

Country	US	EU
RRP regime status	Implemented	Implemented
Framework	Dodd-Frank Act (DFA)	BRRD
Regulatory authority	<ul style="list-style-type: none"> Federal Reserve Board Federal Deposit Insurance Corporation 	European Banking Authority, and respective countries' resolution authority
Key focus areas	<ul style="list-style-type: none"> Strategic analysis of resolution planning Corporate governance structure Organisation structure and related information Interconnections and interdependencies <p>Appendix 2 provides further details on the DFA's resolution plan requirements.</p>	<ul style="list-style-type: none"> Minimum requirements for recovery plans Trigger frameworks for early intervention Scenario testing Governance structure for decision making in distressed situations Identification of critical functions
Global standards: FSB's 12 essential features for resolution regimes		

Japan	Hong Kong	Singapore	Malaysia
Implemented	Framework established	Consultation paper	No formal framework
Deposit Insurance Act	Supervisory Policy Manual RE-1 on recovery planning	Consultation paper on enhancement of resolution regime	N/A
<ul style="list-style-type: none"> Financial Services Agency Deposit Insurance Corporation of Japan 	Hong Kong Monetary Authority	Monetary Authority of Singapore	<ul style="list-style-type: none"> BNM PIDM
<ul style="list-style-type: none"> Recovery options Regulatory powers Resolution funding Provisions for bail-in Termination rights in contracts Removal of legal obstacles 	<ul style="list-style-type: none"> Governance structure and oversight Identification of core businesses, material entities, critical functions and critical shared services Stress scenarios Recovery triggers Disposal options Eligibility for central banking facilities Communication plan 	<ul style="list-style-type: none"> RRP Temporary stay and suspensions Statutory bail-in powers Cross-border recognition of resolution actions Creditor safeguards Resolution funding 	<p>Other Info: There are existing legislations which cover resolution and administration of FIs:</p> <ul style="list-style-type: none"> 2013 FSA 2013 IFSA Malaysia Deposit Insurance Corporation Act

(please refer to **Appendix 1** for further details)



Glossary of terms

2013 FSA	Financial Services Act 2013
2013 IFSA	Islamic Financial Services Act 2013
AICB	Asian Institute of Chartered Bankers
BCM	Business Continuity Management
BNM	Bank Negara Malaysia
BRRD	Bank Recovery and Resolution Directive
Danaharta	Pengurusan Danaharta Nasional Berhad
Danamodal	Danamodal Nasional Berhadz
DFA	Dodd-Frank Act
FDIC	Federal Deposit Insurance Corporation
FI	Financial institution
FRB	Federal Reserve Board
FSA-JP	Financial Services Agency, the Japanese Government
FSB	Financial Stability Board
GLCs	Government-Linked Companies
GLICs	Government-Linked Investment Companies
HKMA	Hong Kong Monetary Authority
IMF	International Monetary Fund
LGD	Loss given default
LOLR	Lender of Last Resort
MIS	Management Information System
MPE	Multiple Points of Entry
NPLs	Non-performing loans

PD	Probability of default
PIDM	Malaysia Deposit Insurance Corporation / Perbadanan Insurans Deposit Malaysia
PRA	Prudential Regulation Authority
RRP	Recovery and resolution planning
SIFI	Systemically important financial institution
SPE	Single Point of Entry
TLAC	Total Loss Absorbing Capacity

Appendix 1

FSB's Key Attributes of Effective Resolution Regimes for Financial Institutions

FSB's 12 essential features for resolution regimes

		12 essential features
Legal framework	Scope	1. Scope (FIs subjected to resolution regime)
	Regulation & regulator	2. International Monetary Fund 3. Resolution authority
	Stakeholder governance	4. Set-off, netting, collateralisation, segregation of client assets 5. Safeguards (creditor hierarchy) 6. Funding of firms in resolution
	Cross-border collaboration	7. Legal framework conditions for cross-border cooperation 8. Institution-specific cross-border cooperation agreements
	Planning	9. RRP →
	Supervision	10. Crisis Management Groups 11. Resolvability assessments
Operational framework	Information management	12. Access to information and information sharing

Source: PwC

FSB's 5 essential elements of RRP

5 essential features

1. Objectives & governance
2. General outline of RRP
3. Essential elements of a recovery plan
4. Essential elements of a resolution plan
5. Information requirements for RRP

Further description

- Governance structure and oversight
- Assumption and stress scenarios
- Recovery and resolution strategies
- Recovery and resolution trigger points
- Measures to address potential impediments
- Recovery and resolution funding
- Legal structure
- Critical functions
- Business continuity management
- Communications strategy
- Key contacts
- Group linkages
- Operational data and procedures
- Legal and regulatory references

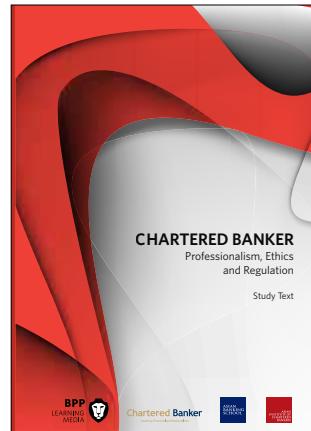
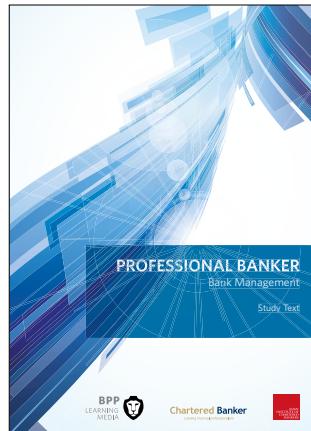
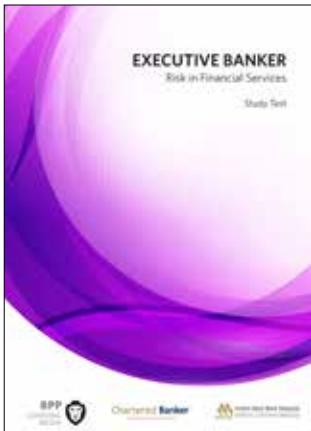
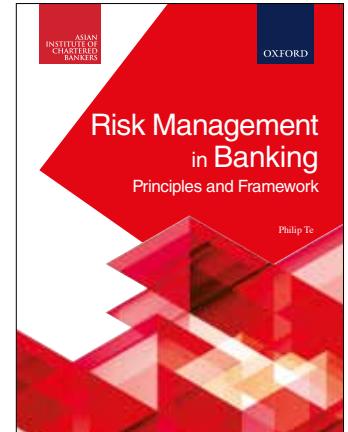
Appendix 2

DFA resolution plan requirements

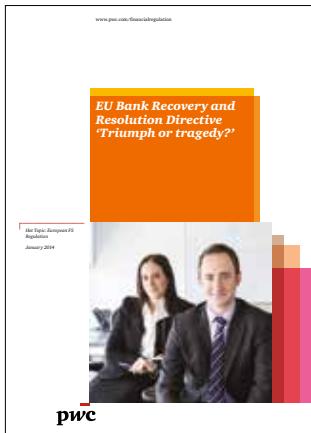
The DFA rule is broken down into eight major areas and about 40 individual components.

Eight major resolution plan components	Further description
1. Executive summary	<ul style="list-style-type: none">• Resolution plan (overview)• Strategic plans• Changes to prior plans
2. Strategic analysis	<ul style="list-style-type: none">• Resolution plan<ul style="list-style-type: none">• FI, material and insured depository entities• Critical operations and core business• Key assumptions• Funding requirements
3. Corporate governance structure	<ul style="list-style-type: none">• Policies and procedures• Internal controls• Risk measurements/data for<ul style="list-style-type: none">• Credit risk exposure• Resolution plan <p>} Development and approval of resolution plan</p>
4. Organisation structure and related information	<ul style="list-style-type: none">• List of material entities• Mapping of critical operations and core business• Financial information• Off-balance sheet exposure (including derivative and hedging)• Major counterparty• Trading, payment, clearing system
5. Management information system (MIS)	<ul style="list-style-type: none">• Information on core MIS• MIS legal ownership• Associated software and licenses
6. Interconnections and interdependencies	<ul style="list-style-type: none">• Involving FI, material entities and affiliates• Involving critical operations and core business lines
7. Supervisory and regulatory information	<ul style="list-style-type: none">• US and foreign regulatory authorities FIs report to
8. Contact information	<ul style="list-style-type: none">• Senior management contacts for resolution plan (FI and material entities)

AICB publications



PwC publications



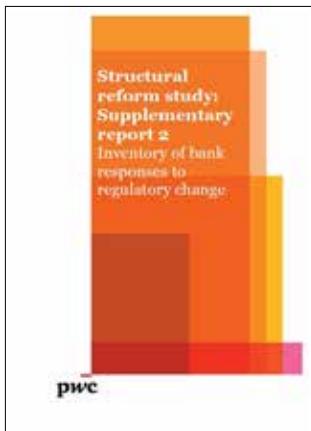
EU Bank Recovery and Resolution Directive
‘Triumph or tragedy?’



Too big to share anymore?
Balancing efficiency with resolvability



Impact of bank structural reforms in Europe
Report for AFME



Structural reform study:
Supplementary report 2
Inventory of bank responses to regulatory change

Financial services regulatory publications series:



Regulatory brief



First take

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