Recovery planning: preparing for stress

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- When the 2007–08 financial crisis hit, banks were not adequately prepared for severe financial stress. They therefore had difficulty implementing measures to restore their financial strength.
- Recovery planning is part of the response to this failure. All banks should have clear and tested strategies for recovering from a range of potential stresses, and they should have an early warning system to alert them that a stress is approaching. Banks' recovery plans should not assume or require any taxpayer support.
- The PRA views recovery planning as an important component of the post-crisis reforms. It increases the resilience of banks to stress and reduces the probability that a bank will fail.

Overview

At the onset of the financial crisis banks were not sufficiently prepared for severe financial stress. In response to this failure, all banks must now have clear and tested strategies for recovering from a range of severe scenarios. If banks are able to respond effectively to a stress by taking measures to protect or restore their financial position, it reduces the probability of contagion within the financial sector.

Recovery planning forms part of the post-crisis reforms to increase the safety and soundness of the financial system. It complements other reforms — such as ring-fencing and higher capital and liquidity requirements — in lowering the probability that a bank will fail.

Recovery relates to the actions taken by a bank to restore its capital and liquidity positions. In contrast, resolution is the process of dealing with a failed bank, led by the Bank of England as resolution authority.

An effective recovery plan should allow a bank's management to restore the business to a stable and viable position in a timely manner. The plan should set out all credible options the bank has for responding to a variety of scenarios. A bank needs to be able to respond to market-wide stresses, idiosyncratic stresses, or both at the same time. Crucially, recovery should not assume or require taxpayer support.

The responsibility for recovery planning rests with banks rather than the regulator, for good reasons. The Prudential Regulation Authority (PRA) is focused on the safety and soundness of the banks it regulates, but banks must take responsibility for their own resilience. It is in their interests

to have a thorough understanding of the recovery options available to them in a crisis so that they can get themselves out of trouble before the regulator would otherwise need to intervene. A recovery plan should be reviewed and signed off by the bank's board and senior management, because they would be responsible for taking the key decisions in a stress.

The PRA's supervisory strategy concentrates on making sure banks have recovery plans which are credible, and usable if they are needed. The PRA also considers banks' recovery plans at an aggregate level to understand how the industry as a whole would respond to a stress. The PRA's assessment of recovery plans feeds into the Bank of England's concurrent stress testing of the UK banking sector.

Summary figure Stresses and recovery options



Introduction

It pays to be prepared. When the financial crisis hit, banks⁽¹⁾ had not adequately anticipated how they would respond to a stress, and were not operationally prepared for implementing measures to avoid failure. This meant that when banks needed to strengthen their capital and liquidity positions it was more difficult to do so. The lack of preparedness among banks exacerbated the problem of many banks holding insufficient financial resources to absorb significant losses. If banks are well prepared to recover from a stress then they are more resilient, which benefits the wider financial system.

This article outlines the ongoing work to increase banks' resilience to stress through recovery planning, and the progress made since the financial crisis. The discussion is informed by the work done by and in respect of UK-domiciled banks in particular. The first section discusses the importance of recovery planning and its role in the wider post-crisis reforms. The second section examines the design of a credible recovery plan and how it can be tested. Finally, the third section explains how recovery planning fits into the Prudential Regulation Authority's (PRA's) supervisory approach.

Figure 1 Building blocks of a recovery plan



The role of recovery planning in the post-crisis reforms

Why does recovery planning matter?

Recovery planning makes banks more resilient to a shock. It strengthens the effects of other reforms such as changes to the capital and liquidity regimes — to require banks to hold more financial resources — and structural changes such as 'ring-fencing'. All of these measures reduce the probability that taxpayer money would be needed to support the financial system in a crisis and help protect functions provided by a bank that are critical to the economy.

Banks recognise the importance of developing a strategy for dealing with a potential stress well in advance of it occurring. Much progress has been made by UK banks on developing their recovery plans since the Financial Services Authority (now the PRA) first required banks to produce and submit these plans in 2011. The PRA's approach to recovery planning

has built on the lessons learnt from banks that have taken recovery measures during and since the crisis. The PRA reviews banks' plans together to assess their credibility and understand how the sector as a whole might respond to a market-wide stress. Recovery planning also plays an important role in stress testing as stress testing requires banks to consider how they would respond to different scenarios.

Additional impetus to the work on recovery planning was provided by the transposition of the Bank Recovery and Resolution Directive (BRRD) into UK law in January 2015. This legislation requires banks to produce credible recovery plans and to test them against a range of severe but plausible (hypothetical) scenarios. It sets out the essential elements that must be included in a recovery plan and gives the PRA powers to ensure banks produce them. Recovery planning is also a prescribed responsibility under the Senior Managers Regime, (2) which means that there must be a named senior manager at each bank who is accountable for recovery planning.

Recovery options are actions a bank can take to restore its financial position. Banks need to give thought to which options would be used in different scenarios, when they would be deployed, and how they would be selected, so that if a crisis occurs swift action can be taken. Options range from internal actions such as cost cutting to those which are highly visible externally such as equity issuance or the disposal of a business. The broad types of recovery option are described in **Table A**.

Table A	Types of	f recovery	option
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Category	Description
Cost	Operational cost savings and bonus reductions.
Dividend	Reduction or cessation of dividend payments.
Issuance	Equity or non-equity capital issuance.
Disposals	Sale of stand-alone or complete businesses.
Asset sales	Sale of portfolios of assets.
Liability management exercise	For example, exchange of non-equity capital for common equity Tier 1.
Commercial	Adjustments to pricing or volume of new business (eg to raise deposits or manage the size of the balance sheet).
Central bank	Use of central bank liquidity facilities.
Funding	Raising funding via money markets, debt issuance or securitisation.

Constructing a recovery plan is useful in itself. Considering available recovery options forces a bank to think about its vulnerabilities, and modelling how the financial position might change in a stress can help identify changes that need to be made to improve the resilience and 'recoverability' of the bank. This might mean identifying potential recovery options that would currently be difficult to execute, or where the total financial impact of all available recovery options is too small

⁽¹⁾ This article uses the term 'bank' to refer to both banks and building societies.

⁽²⁾ See Bank of England (2015a).

The link between recovery planning and stress testing

There is a link between recovery plans and banks' own internal stress testing. All banks conduct stress testing as part of the self-assessment of their capital and liquidity requirements, which the PRA reviews when setting these requirements.⁽¹⁾ Banks can draw on this work (and *vice versa*) in conducting the scenario analysis in their recovery plans, and the PRA expects consistency between these submissions.

The seven largest UK banks are also subject to the annual concurrent stress test set by the Bank of England. (2) For this exercise, each bank submits the management actions they would carry out to preserve or restore their capital position during or following the stress scenario. The (positive) impacts of these actions count towards the bank's capital position versus the 'hurdle rate' required to pass the stress test. Banks must ensure that management actions they propose as a response to the stress are part of, or consistent with, their recovery plan. (3)

for the bank to be reasonably sure it could recover. The bank needs to be confident that it has sufficient options with sufficient aggregate impact to recover from a range of potential stresses (ie a sufficient 'recovery capacity') or else sufficient resources to absorb losses and buy time to implement more extreme recovery measures. Banks therefore must consider the more radical options they might need to take in a crisis (such as restructuring or exiting particular markets) and not just those that are currently easy to execute.

There are a number of barriers to recovery that banks are working to address; structural and operational changes can be needed to make recovery options more credible and to generate additional options for different scenarios. Being able to dispose of a significant part of the business (to strengthen the financial position of the group) can be more straightforward if preparatory work has been done beforehand. This might include understanding how it would be 'unplugged' from the wider group. Adding such disposal options to a bank's menu of credible recovery actions can significantly increase the recovery capacity of a bank.

Recovery planning helps draw together parts of a bank's risk management and governance processes that might otherwise be less effective. There is interaction with banks' stress testing of their capital and liquidity positions, and with the work done for the Bank of England's concurrent stress test. These links are explored further in the box above.

When would a recovery plan be used?

In order for a recovery plan to be effective, a bank needs to determine when the recovery plan should be invoked. Much

The credibility of management actions is considered as part of the assessment of the bank's recovery plan. Recovery options judged to be non-credible are likely to be rejected as feasible management actions in the concurrent stress test. A further assessment is then made as part of the concurrent stress test as to whether the action and impact is credible in the specific concurrent stress test scenario. These assessments impact the bank's stressed capital position versus the hurdle rate required to pass the stress test.

The results of the stress test are used to inform the PRA's assessment of the amount of capital a bank must hold. Banks' stressed capital positions before and after the implementation of management actions are published by the Bank of England. The interaction with the stress-testing regime therefore provides an incentive for these banks to produce robust and credible recovery plans.

- (1) See Bank of England (2015b) and Bank of England (2015c).
- (2) See Bank of England (2015d).
- (3) See Bank of England (2016a).

has been said about the fact that few people saw the recent financial crisis coming, partly because of the failure to consider warning signs. This meant that banks were ill prepared to respond and had less time to take pre-emptive or preparatory measures.

In order to reduce the risk of this happening, banks' recovery plans must include a range of early warning indicators which are monitored to detect signs of emerging stress. A bank needs to have sufficient warning of a stress in order to consider its options and prepare to execute its recovery plan. These indicators are qualitative and quantitative. **Table B** sets out the types of indicators that all banks should monitor,

Table B Types of indicators and examples

Regulatory metrics

- Common equity Tier 1 ratio.
- Total capital ratio.
- Liquidity Coverage Ratio.
- · Net Stable Funding Ratio.

Changes in financial position or market sentiment

- Growth rate of gross non-performing loans.
- Significant operational losses.
- Changes in credit default swap (CDS) spread.
- · Stock price variation.
- · Rating under negative review or rating downgrade.

Internal forecasts

- Return on assets forecast.
- · Return on equity forecast.
- Forecasts for different income sources.

Economic trends

- Deviations from long-term averages/trends, eg GDP variations.
- CDS of sovereigns.

although banks would also monitor other metrics specific to their business models. Indicators need to be as 'forward looking' as possible to give the bank time. Complementing regulatory metrics (typically calculated from lagging balance sheet data) with forecasts and changes in key variables increases the chance that a bank will receive early warning of a stress.

Banks will monitor the early warning indicators they have selected, and specific levels (or changes over a certain period of time) are chosen to indicate a cause for concern. These triggers need to be calibrated to give the bank sufficient warning of a potential stress so that it can take action, preferably before it hits the balance sheet. A breach of an indicator does not automatically trigger action by the bank; rather it serves to prompt the bank to consider whether and when it needs to act. For example, the triggering of a certain indicator might result in the escalation of the issue to a more senior decision-making committee.

In order to judge when to invoke the recovery plan, banks need to consider how quickly a stress could affect their business model and how long it would take to realise the benefits of the recovery options that would be available to them in that stress. The more quickly a stress unfolds and the greater the time it would take to improve the financial position, the earlier the recovery plan should be invoked. Banks can calibrate these factors to set the indicator triggers by using reverse stress testing (to quantify the point at which the bank would likely fail) and scenario modelling.

One way of calibrating early warning indicators is via an assessment of where a potential stress would hit first. This means that early warning indicators can be targeted to those areas and set at a level to give sufficient notice of a stress. Different crisis scenarios will warrant different indicators, but carrying out this exercise across a range of hypothetical scenarios will verify whether the most appropriate indicators are on the list, and maximise the chance that each type of approaching stress triggers an indicator somewhere in the business.

Not all indicators will trigger in every stress, but that is the purpose of having a range: the important thing is that some of them trigger before action needs to be taken. For example, if a bank is particularly susceptible to a housing market shock, the bank would analyse the factors that might be warning signs of such an event, and which part of the business is likely to be affected first.

Planning for recovery should be a business-as-usual activity; this is easier if it is treated as an extension of normal risk management. For example, ensuring that indicators are aligned to those used to define a bank's risk appetite, monitoring similar metrics for recovery indicators as for

normal reporting and using consistent governance arrangements. It makes sense for banks to calibrate different 'early warning' thresholds and a final 'recovery trigger' for each metric monitored. The box on page 204 discusses the calibration of recovery plan indicators and the appropriate coverage of a recovery plan in the spectrum of financial health of a bank.

What is the difference between recovery and resolution?

Recovery relates to the actions taken by a bank to avoid failure, whereas resolution is the process of dealing with a failed bank, led by the Bank of England as resolution authority. During recovery, a bank remains responsible for its management, consistent with banks owning and implementing their recovery plans.

The boundary between recovery and resolution — ie the point on the spectrum of bank deterioration at which the Bank of England would intervene — is a judgement for the authorities. If a bank is judged to be failing or likely to fail, the Bank of England (as resolution authority) would assess whether there were any actions that could be taken by, or in respect of, the bank that would allow the bank to recover. If recovery was not reasonably likely, the conditions for resolution would be met and the bank would be resolved.⁽¹⁾

It is therefore important that banks think about the potential impact that taking each recovery action might have on the ability to resolve the bank if recovery is not successful. Some recovery actions may make resolution more difficult. For example, selling an entity which provides key services for the rest of the group and replacing it with a third party that would not be available post resolution. If the bank subsequently failed, this recovery action might make it difficult to continue the provision of critical functions from the third party (such as payment, clearing and settlement services) during and following the resolution.

Designing and testing recovery plans

What does a credible recovery plan look like?

A credible recovery plan must be implementable in a stress and the bank must be willing and able to use it. This relates to the culture in the organisation: the bank must recognise the need to develop and maintain a credible plan and actually use it if it is needed. The main components of a credible plan are:(2)

⁽¹⁾ This is a simplified description of the steps involved. For full details see Bank of England (2014a).

⁽²⁾ The main elements of a recovery plan are defined by the regulations. See Articles 5–9 of the Bank Recovery and Resolution Directive and the European Commission Delegated Regulation (see European Commission (2016)).

Calibration of recovery plan indicators and coverage of a recovery plan

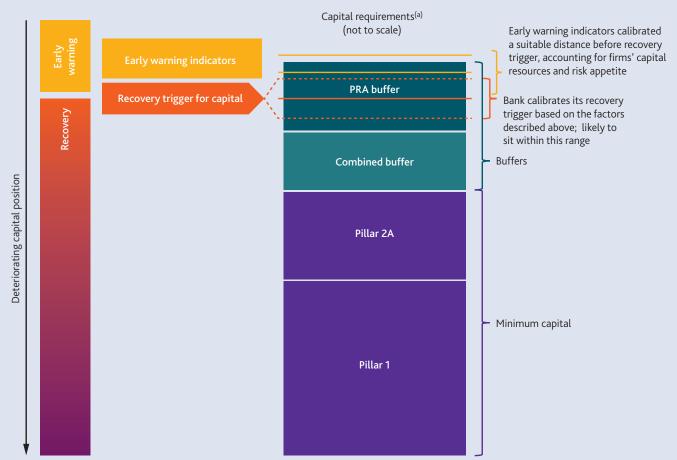
The following diagram illustrates how a particular bank might calibrate its capital indicators considering its capital requirements and risk appetite. The bank would also consider the potential speed of the stress, the point of near failure and the time it would take to implement its recovery actions to restore the bank to viability. Indicators at several levels would alert the bank to a worsening situation. Where the early warning and recovery indicators sit would be different for each bank.

Recovery options can be taken at any point. But as the stress deepens, recovery actions may need to be more extreme and implemented more quickly. For example, the nature of the stress may be such that the bank's management decides to take commercial actions when an early warning indicator is breached rather than waiting for the recovery trigger. Likewise smaller-scale equity issuance or disposal options may be required if executed earlier rather than later in the stress.

The recovery plan should therefore cover a broad spectrum of bank deterioration.

The PRA is also likely to increase the intensity of supervision as the situation worsens and it may take appropriate supervisory actions.

Figure A Calibration of capital indicators



Note: This capital stack only shows going concern capital requirements for loss absorption.

(a) For more details on banks' capital requirements see Bank of England (2015e).

- effective early warning indicators (as described above);
- a range of recovery options appropriate to the business model;
- governance arrangements for both the production and invocation of the plan;
- a communications plan for dealing with internal and external stakeholders;
- · scenario testing of the plan (see below); and
- sufficient analysis to demonstrate the credibility of the plan, including its appropriateness for the bank's business model.

There are many factors which a bank needs to consider when deciding the strategy for deploying recovery options. These include the size of the benefit that could be realised from each option, the time it would take to realise the benefit, dependencies between actions (some might be mutually exclusive), the ease of execution and the risks involved. Banks will almost always prefer to take actions such as cost cutting (for example reducing spending on travel and training) before those that will directly impact customers and affect the confidence of investors (such as selling a major business).

The most appropriate use of recovery options will depend on the scenario. Most recovery actions will have both a capital and liquidity impact, but this will not necessarily be positive in both respects. For example, disposing of a portfolio of assets at a loss would generate liquidity (the cash received for it) but might erode the capital position, if the loss more than offsets the reduction in (risk-weighted) assets.⁽¹⁾ Such an option may be appropriate for a liquidity stress but less suitable for a scenario which threatens the bank's capital position over a period of years.

For large, complex banks, an exercise in rationalising business lines, legal entities and critical functions is often required before recovery options can be designed. This involves 'mapping' the core business lines (such as retail banking, commercial banking or wealth management) to those legal entities in the bank's structure that conduct them. A global bank is likely to be constructed of hundreds of subsidiaries and branches all over the world. Some of these entities will conduct functions which are considered critical for the operation of the group as a whole (such as providing IT services or a settlement function), and/or critical to the local economy (such as deposit-taking or providing access to payment systems). Each UK bank subject to ring-fencing will need to ensure it has a distinct entity which provides UK financial services such as taking retail customer deposits. These structural changes will help protect these functions in a crisis from problems in the rest of its banking group, or from

elsewhere. It is therefore important that banks consider how the financial position of the ring-fenced body could be recovered without relying on support from the rest of the group. This is explored further in the box on page 206.

When considering recovery options, complex banks need to understand the impact that taking action in one part of the group might have on another part to ensure that critical functions are protected and that there are no unintended consequences. For example, without effective co-ordination across the group, a local subsidiary in financial distress could intend to dispose of its small entity in a third country which is not material to the operations directly. However, if the entity in fact books all trades from the wider group's investment banking business (because it provides access to local financial market infrastructure), the sale of this entity would have a detrimental impact for the wider group. If a bank proposed selling a foreign entity, the PRA would discuss this with the bank and the bank's regulators from around the world to help mitigate such risks.

The interlinkages within a global banking group need to be documented and considered in detail when designing a recovery plan to mitigate the risk of unintended consequences. An integrated, co-ordinated and consistent group-wide recovery plan for large financial institutions with many local entities is vital for reducing the risk of contagion in a financial crisis.

Some banks have increased the usability of their plans by producing a 'recovery playbook' to complement the more detailed recovery plan. This draws together what senior management and the board need to know when deciding on — and executing — a recovery strategy. This includes potential packages of recovery options for different types of stress (including impacts and timelines), governance arrangements for taking decisions (including key decision criteria) and detail on how options should be executed.

Every recovery plan will be different because it should reflect the individual bank's particular business model, size and links with the wider financial system. Smaller and less diversified banks might therefore have a simpler recovery plan than a global banking group. For example, very small and simple banks might have fewer categories of recovery options to consider.

How can a recovery plan be tested?

Banks cannot predict and prepare for every possible situation. But testing the recovery plan against a range of hypothetical scenarios can help identify problems with the plan under

⁽¹⁾ Assets are risk weighted for capital calculations such that relatively more capital must be held against riskier assets. For more detail on the interaction between capital and liquidity, see Farag, Harland and Nixon (2013).

Recovery planning for ring-fenced banks

Structural reform is an important part of the changes to strengthen the financial system following the recent financial crisis.(1) The PRA is implementing ring-fencing in a way that facilitates both recovery and resolution. Indeed, ring-fencing can improve options banks have for resolution and restructuring.(2)

It is essential that banks subject to ring-fencing consider the impact of these changes on their recovery planning and their recovery capacity. The Bank of England recently consulted on the requirements for recovery planning in respect of ring-fenced bodies (RFBs).(3) The consultation proposed that the recovery plan of a group containing an RFB should include recovery options that could be taken at the level of the RFB subgroup. This is important for ensuring the resilience of the RFB and the protection of its critical economic functions in a crisis. This is also in line with the PRA's general objective to 'minimise the risk that the failure of a ring-fenced body or a member of a ring-fenced body's group could affect the continuity of the provision in the United Kingdom of core services'.

When revising a group recovery plan to reflect changes made as part of structural reform, banks will need to consider:

- · updating the full menu of recovery options to explain how they would apply to the RFB and other group entities;
- · how any financial support from the group would be provided;
- · how the RFB would maintain continuity of operational services provided by another group entity in the event of the failure of an entity or entities outside the ring-fence;
- defining the risk appetite and trigger levels relating to the RFB; and
- scenario analysis relating to a stress impacting the RFB, giving examples of how the recovery options would work in practice.
- (1) See Britton et al (2016).
- (2) For further detail, see page 7 of Bank of England (2014b). (3) Bank of England (2016b).

different types of stress. Scenario testing is a useful way to demonstrate how the different parts of the recovery plan would interact. This includes understanding the point at which recovery indicators would be triggered and whether they are appropriately calibrated, how the escalation and governance procedures would work, and the potential dependencies between recovery options.

Scenario testing simulates the impacts of changes to key variables, both market-wide and idiosyncratic. For example, a fall in UK house prices or GDP is likely to affect several banks, whereas a particular bank could be faced with a significant loss as the result of a one-off event specific to that bank (known as an idiosyncratic stress), such as a major fraud or a regulatory fine. It is possible that both market-wide and idiosyncratic stresses could occur at the same time (known as a combined scenario), so it is important that banks consider how they would respond to the worst-case scenario.

Stress testing of the recovery plan helps banks to think about which events would be most difficult to recover from, and the order in which they would take recovery actions. Different recovery options will be more suited to different types of stress. For example, it would be more credible for a bank to assume continued market access for options such as debt issuance following a large operational loss than in a market-wide stress. However, no scenario modelling can predict how events would actually unfold and choosing an order of recovery options for this analysis does not commit

banks to taking particular options in a given type of stress. The PRA has done work to understand how banks' proposed recovery actions might be affected by different scenarios, particularly where more than one bank might be trying to execute similar actions at a similar time. Banks need a suitably broad range of recovery options precisely because some of them will not be feasible in certain conditions.

Modelling how the capital and liquidity profiles of the bank change over time — both in the absence of, and with, selected recovery actions — can show the size and nature of the hole that needs to be filled under each type of stress and whether the benefits of recovery actions are sufficient to fill it. Modelling of the impacts of the recovery options identified by the bank is used to determine how and when they should be deployed in different scenarios, and to understand whether the bank has a sufficiently broad range of recovery options to respond to both fast and slow-moving situations. The bank needs to be confident that it can act fast enough — and the benefits of selected actions accrue quickly enough — to allow the bank to recover.

There is a risk that some banks calibrate their recovery plans to kick in so late in the bank's deterioration as to be ineffective. This could be because of a perceived stigma associated with being 'in recovery' or the concern that the exercise of certain recovery options warrants disclosure to the market, which could itself generate more stress for the bank. Such an approach may be counterproductive: it could mean

that it would be too late to save the bank once the plan is invoked.

Ultimately, scenario analysis should show what the bank looks like after recovery, once the impacts of the recovery actions have been realised. This can help the bank to understand the depth of stress from which it could recover. This is not just about being able to realise sufficient financial benefits from available recovery options. In some cases the franchise and/or profitability of the business may be so damaged following the use of recovery actions that the remaining business is not viable. For example, if a bank has to sell off a major business which brings in a significant proportion of profits in order to survive it is questionable whether the remaining franchise and business model is sustainable. This might suggest that this recovery option is not credible.

While scenario testing is focused on the theory of implementing the recovery plan, 'fire drills' are one way for banks to test how it might work in practice, particularly for fast-moving crisis situations. It is one thing to document procedures and operations but quite another for a bank to prove that it can get the right people in the same room in a short enough time to take appropriate decisions and devise a credible strategy to get the bank out of trouble. The PRA has started to encourage banks to conduct 'live' simulation exercises on their recovery plans, acting out key parts of it to identify problems and improve their plans under different scenarios. Fire drills can help demonstrate that a recovery plan would be usable in practice.

Banks that have conducted fire drills have found them useful for understanding the practicalities of implementing recovery options, the calibration of early warning indicators and the unexpected obstacles to successful recovery. A recovery plan is likely to be much more credible if it includes a report on lessons learnt from a fire drill exercise and how the bank is addressing any problems identified.

The iterative process of testing and updating a recovery plan is illustrated in the following figure.

Figure 2 Iterating a recovery plan through review and testing



Recovery planning as part of the PRA's supervisory approach

How does the PRA assess whether banks have a credible recovery strategy?

The PRA conducts detailed assessments of banks' recovery plans and provides feedback. The PRA assesses the credibility of a number of factors when assessing the overall plan; the approach is detailed in the box on page 208. Particular focus is placed on whether the bank is likely to use its plan in a stress as opposed to just treating it as a document to comply with regulations. In this respect, the PRA looks for evidence of engagement from the bank's senior management and board in designing, challenging and testing the plan, and whether the plan has been structured as a usable document. Banks must own their recovery plans and reflect advances in best practice. It is in their own interests to have a credible plan and avoid being placed into resolution during, or following, a stress.

Plans are not assessed in isolation: the PRA looks across the industry to understand and compare how all banks would react in a stress. This includes whether each bank's strategy makes sense compared to peers and whether all banks trying to take similar actions at the same time would cause problems. For example, if the first thing most banks would do in a market-wide stress would be to conduct an equity issuance, the PRA can compare the total proposed quantum of equity to that raised in the financial crisis and conduct analysis on the likely investor base. If all banks would be trying to issue significant quantities of equity to the same investor base then the PRA needs to make sure banks are not relying on this as their only recovery option.

Many UK banks regulated by the PRA operate around the world and the PRA regulates the UK operations of banks domiciled overseas; the PRA therefore works closely with international regulators when assessing the credibility of banks' recovery plans. It is important that the relevant regulators understand how a bank would recover from different types of stress, how this would affect operations in each jurisdiction and how actions would be co-ordinated across borders within a banking group.

Recovery planning is most effective where the board members and executives in a bank have engaged with the development of the plan and where the plan is owned by the most senior people in the organisation. If banks treat recovery planning as a compliance exercise then it has little value: while it must meet the regulations, above all the plan must give the bank the best possible chance of recovering when a stress hits. This means ensuring recovery planning is an integral part of risk management. If a plan is not a usable, credible document then the PRA cannot judge it to make the bank more resilient.

Recovery plan assessment: the PRA's key components for a credible recovery plan

The PRA's assessment of recovery plans reflects both the letter and the spirit of the BRRD and the associated requirements. The following aspects are those on which the PRA focuses when assessing a recovery plan. These factors are informed by observations of good practice, the relevant legislation and supervisory requirements and benchmarking of a large number of banks' recovery plans.

However, the different components of a recovery plan are not considered in isolation; it is the credibility of a bank's recovery strategy as a whole which matters and whether the plan would be usable and useful in a stress. A detailed qualitative and quantitative assessment of a recovery plan informs an overall view of the credibility and quality of banks' submissions and they are then compared on a consistent basis.

A cross-bank thematic review of recovery plans is important for understanding the recovery capacity of the sector as a

whole, as well as potential problems banks could face in a market-wide stress. The PRA benefits from seeing all banks' plans to help banks identify potential issues with proposed strategies where they might be affected by the types of actions being taken by other banks in the industry. Communication on these issues would be general and provided to all banks in a peer group to ensure no individual banks are favoured or identifiable.

The PRA's work informs specific feedback to each bank which is designed to focus their attention on the aspects which need further work.

This approach has encouraged an increasing number of banks to provide a self-assessment of their plans to the PRA at the time of submission, including findings of a review by their internal audit and risk functions. This can pre-empt the PRA's feedback and can demonstrate they have a well-considered plan for making further improvements. It also helps to provide some reassurance that the bank is taking the need for producing a credible recovery plan (and improving existing procedures) seriously.

Components of a credible recovery plan				
 1 Recovery options Choice and sufficient range of actions suitable for the business model and structure of the bank. Credible timelines to realise benefits. Credible quantification of actions. Dependencies are adequately considered. 	 2 Indicators Choice and range of indicators is suitable for the business. Adequate integration of indicators within the plan and with the wider risk management framework. Suitable calibration of indicators. 	 Scenarios Scenarios relevant and sufficiently severe. Clear integration of scenarios with the rest of the plan in order to adequately test the plan. Appropriate choice and order of recovery actions in scenarios. Capital and liquidity impacts considered against a timeline. 		
 4 Integration and governance Clear governance for approving the plan and for invoking it. Plan is integrated with the risk management framework. Plan is consistent with other regulatory documents (eg capital assessment, contingency funding plan, stress-test submissions) and the implications of the plan for resolvability are considered. Group and subsidiary plans are appropriately integrated. 	 Usability and structure Format and structure of plan make it usable and effective in a stress. For example, includes a succinct 'playbook' that sets out how to respond and form a strategy on day one. Fire drill used to test and improve the plan's usability. 	6 Credible communication and disclosure plan. 7 Preparatory measures considered and credible. 8 Suitable description of business model and strategy. 9 Adequate identification of core business lines and critical functions.		
		10 Appropriate mapping of core business lines and critical functions to legal entities.		

As banks work through their recovery options and seek to improve their recovery plans there is a growing focus on the preparatory measures that can be taken to make recovery options more credible. Some of the work that would be needed to execute a recovery action — such as an equity issuance, a business disposal or use of the Bank of England's liquidity facilities — can be carried out in advance as part of contingency planning. Banks are working to smooth the path of executing actions by laying the groundwork now. This can mean drafting press releases needed for particular actions, prepositioning collateral at the Bank of England so that it can be quickly drawn against when needed, or ensuring legal documentation and robust valuation methodologies are in place for potential disposal options.

For banks which have well-developed and credible recovery plans, the plans must be continuously updated and tested. While banks are required to update their plans at least annually, in reality a plan needs to reflect changes in the business model, operating environment and the financial position of the bank. Given the amount of structural and strategic change taking place in the banking sector it is vital that banks' recovery plans are not just left on a shelf; they must be a 'living document' in order to be relevant when they are needed.

The PRA is taking steps to further embed recovery planning into the supervisory strategy. For example, by strengthening the links with stress testing and engaging the most senior people at banks — both board and executives — on issues related to recovery planning to ensure recovery planning remains an integral part of strategic planning and risk management. This reflects the importance the PRA places on recovery planning.

What happens if a bank's plan is not judged to be credible?

Having a credible recovery plan is an important part of a bank's resilience. Recovery planning is therefore closely linked to other regimes such as capital and liquidity planning. In the PRA's assessment of a bank, the quality of the recovery plan is explicitly considered as part of the assessment of the bank's financial resilience and its risk management and controls. This assessment informs the supervisory strategy for the bank.

The PRA has a range of actions it can take to address deficiencies in recovery planning and the risks to a bank's resilience and viability. For example, it can:

- require resubmission of a revised recovery plan within two months;
- impose higher capital and liquidity requirements on the bank to compensate for the lower resilience of the bank to stress;
- require the bank to de-risk, for example by reducing its business volumes in particular areas or by asset sales;
- · require the bank to review its business strategy;
- require the bank to review its structure;
- remove (or vary) some of the bank's permissions; and
- place conditions on the approval of the senior manager accountable for recovery planning (under the Senior Managers Regime).

Conclusions

Effective recovery planning by banks is fundamental to their safety and soundness. It complements the other post-crisis reforms in reducing the probability that a bank will fail.

Much work has been done to develop and improve recovery plans over the past few years, using lessons learned during and following the recent financial crisis. Banks find the process of recovery planning increasingly useful for strategic decisions and embedding a coherent risk management framework throughout the bank.

But the work is not yet complete, and the PRA is focused on ensuring banks produce credible plans that are implementable in a stress — plans that would actually be used — as well as ensuring banks make progress on their recovery capacities and identifying vulnerabilities.

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