Capital & Recovery Planning

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Overview

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Capital Planning

Basel Accord Evolution

The BCBS continues to update its guidelines in regards to capital adequacy:

Basel I (1988)

- RWA for credit risk
- Tier 1 and 2 capital ratio and leverage ratio
- Revised in 1991 to include general provisions into the credit risk calculation
- Further revised in 1996 to incorporate market risk, and introduced the option to use internal models to determine market risk RWA. This framework is expanded later to apply to all Pillar 1 Risks

Basel II (1999)

- Introduction of the three pillar framework, namely:
  - Pillar 1: Minimum Capital Requirement
  - Pillar 2: Supervisory Review
  - Pillar 3: Market Discipline
- Further revision introduces the treatment of bank trading book

Basel III (2010-Current)

- Higher minimum capital standards, Capital Conservation Buffer, countercyclical buffer, leverage ratio minimum, additional buffer for GSIBs
- Liquidity Risk Management (LCR & NSFR)
- Expanded scope to include counterparty credit risk, margins for non-centrally cleared derivatives, market risk (FRTB), operational risk

Basel IV (Beyond)

- Capital Floor: internal model approaches floored by a percentage of standardized RWA
- Credit Risk: New constraints added to the use of internal models, revision to risk weights for standardized approaches, and new rules for securitization, and EAD for derivatives
- Market risk: Stricter trading and banking book boundary, sensitivity based approach
- Operational Risk: Replacement of current approach with new standardized approach

The Basel Accords are developed with the intention for i) sound regulatory supervision and ii) supervision would be adequate and consistent across jurisdictions iii) greater convergence in the measurement of capital adequacy

Capital Planning: Background

— Traditionally, Banks relied on **Economic Capital** measures as a tool for capital allocation and performance management. This has evolved as a measure to estimate the level of capital and risk in the institution.

— Banks also rely on **Regulatory Capital** as a risk measure with calculations based on rules designed by regulators.

— The primary goal of **Capital Planning** is to develop a view of the Bank's overall capital health for normal operations over the planning period and the acceptable variances in times of duress.

— A Capital Plan designed by Management provides a key tool within the strategic planning process. As a result, a Bank needs to **enhance and update the plan on a periodic basis** and ensure alignment with the changing business environment, regulatory requirements and Bank strategies.

Sound Capital Planning Process

In 2014, the fundamental elements of a capital planning process were outlined in the BCBS 277 paper:

Internal Control and Governance

- Formalized capital planning & governance process
- Board and senior management involvement
- Input from various lines of business and stakeholders
- Independent validation and/or review

Capital Policy and Risk Capture

- Guidelines for decisions around capital
- The Board should hold Management accountable for adherence to the Capital Plan
- Clearly defined metrics and measures with thresholds to monitor the Bank's capital condition, capturing all material risk and reflect the Bank's risk tolerance

Forward Looking View

- Take into account both current and potential future capital needs
- Consider risks and potential impact of stress tests
- Quantify stress testing and incorporate al material risks faced by the Bank

Management Framework for Preserving Capital

- Defined set of actions to preserve capital
- Defined associated monitoring and escalation protocol, risk reporting, stress testing, and management actions
- Regularly reviewed to ensure appropriateness under different scenarios and changing conditions

Capital Plan: Key Components

- **Business Activities and Strategy**
- **Governance and Controls**
- **Risk Management Framework**
  - Risk Appetite Principles
  - Risk Appetite Statements
  - Key Risks
  - Risk Quantification Methodologies
  - Emerging Risks
- **Forecasted Capital Plan** – Forward looking up to 3-5 years, including key assumptions that feeds into the capital plan
- **Stress Testing** – Overview of stress testing process and results

Capital Plan: Example Structure and Key Content

Executive Summary

— **An overview of the** Bank's current and forecasted capital position, and composition

— **A statement** indicating that the Bank's projected capital level is adequate against both regulatory minimums and internal limits

Overview of the Business

— **A description of** the group, including major lines of business and geographies of operation, applicable laws and regulatory bodies, and shareholders

— An overview of the group's **business strategy** and activities over the forecast period

— **Governance and Controls**, including board and management structures, reporting and oversights, and key policies

Risk Management Framework

— **Risk Appetite Statements** outlining the Bank's overall risk tolerance based on its strategy

— Overview of the Bank's **risk identification process** outlining the ways the company identify and deliberate new risk

— A list of **material risks** and how each risk is considered for the purpose of **capital quantification**

— **Emerging risks** that may impact the Bank

Capital Plan: Example Structure and Key Content

Capital Plan

- **A summary of the Bank's capital adequacy** and forecasted condition, along with assumptions on capital forecast and dividends schedule
- **Key assumptions** that drives the baseline capital forecast
- Detailed quarterly and yearly **forecast of the Bank's financial and capital health**
- Overview of relevant **capital monitoring measures** and **list of options** available for the bank to maintain capital adequacy

Stress Testing

- **Overview of the stress test process** and scenarios
- For each scenario:
  - A description of each scenario, and key assumptions that goes into the scenario compared to baseline forecast
  - Overall impact that the scenario have compared to the Bank's baseline scenario, covering overall financial health, and key risk and performance metrics
  - **Mitigating actions** (Management actions) that the Bank can take to ensure capital adequacy, if necessary

Management Actions: Current Market Practice

A defined set of actions and key considerations should be discussed and deliberated and approved by Management. Below is an example of the key elements that should be considered:

1. **Action** – The type of action (i.e. reduce dividend, issuance of shares) that the Bank plans to undertake
2. **Business Unit** – The business unit that is responsible for carrying out the action
3. **Status of Management Action** – Whether the action to be undertaken is currently approved by the Bank
4. **Approval Responsibility** – The authority within the Bank that holds ultimate authority for approving the action
5. **Impact** – Potential impact that the action may have on the Bank
6. **Operational Readiness** – The level of preparedness of the Bank to undertake this action
7. **Time to Implement** – Overall timeline required to implement the action

Recovery and Resolution Planning

Recovery Planning: Background

- **Recovery and Resolution Plans** were introduced into the Banks as one of the important regulatory tools to implement post the 2007 – 2008 financial crises.
- The primary goal of the **Recovery Plan** is to develop a menu of options that would enable a financial institution to respond to a wide range of internal and external stresses and maintain the confidence of market participants.
- Under the purview of management, the Recovery Plan is a key tool to identify the options or approaches to recover financial strength and viability (i.e. capital and liquidity) under severe stress.
- A **Resolution Plan** aims to enable the resolution of a Bank or Group in an orderly manner without severe systemic disruption or exposing taxpayers to the risk of loss. This is achieved by protecting those functions of a Bank or Group that are critical to the financial market or economy and ensuring that losses are borne by the appropriate stakeholders.
- After developing a first generation Recovery & Resolution Plan, a Bank will continue to **develop and enhance the plan** annually and align to the evolving practices of this relatively new area of risk and capital management.

> “When the 2007 – 2008 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.”
>
> Prudential Regulation Authority UK (PRA)

> “Banks should consider a range of scenarios and develop a range of recovery options (…).”
>
> Financial Stability Board (FSB)

> “Banks are required to draft recovery plans to prepare for possible financial difficulties and restore their viability in a timely manner during periods of financial distress.”
>
> European Central Bank (ECB)

Recovery & Resolution Planning: Evolution

Next Generation & Global "Expansion"

Supervisors are focusing increasingly on the **credibility of banks' recovery plans**, because these plans should provide a crucial line of defense if banks suffer losses or face liquidity difficulties. Meanwhile, resolution authorities are building up their resolution planning activities.

Recovery and Resolution legislation and regulation is **introduced and enhanced** worldwide based on the initial recovery and resolution generation.

Response

In **2011** & **2014** "Key Attributes of Effective Resolution Regimes for Financial Institutions" were adopted/updated by the Financial Stability Board (FSB). **New regulations** are enacted, requiring banks or regulatory authorities to develop recovery and resolution plans.

Examples include the "Bank Recovery and Resolution Directive (**BRRD**)" in the EU, and "**Dodd-Frank**" in the United States (US).

Contingency Plans

Banks have always had **Contingency Plans**.

But the 2007-2008 **financial crisis** demonstrated that many banks did not have viable plans to recover from severe shocks.

The G20 constituent members commit at the **2009** Pittsburgh summit to **working towards a common regime**.

Financial Crisis | **"Push for Recovery and Resolution"** | **Enhancement & Global Expansion**

2007 — 2008 — … — 2014 — 2015 — … — 2019 — 2020

What is it Designed to Achieve?

One Analogy: Responding to a severe stress is like tackling fires - an effective sprinkler system that is capable of fighting fires is required.

Fill the tank
i.e. the business model must be capable of delivering a range of options to remedy financial weakness and restore market confidence without extraordinary financial support.

Detect heat/fires
i.e. early warning indicators that detect stress building and then trigger the recovery plan.

Swift response to tackle the problem
i.e. no blockages or delays in deploying capital and liquidity recovery options.

Be prepared to make hard choices
i.e. recovery actions may damage profitability/ franchise value.

Scenario analysis (fire drills) allows the Board to test the resilience and adequacy of recovery planning and challenge the clarity of any communication plans – Recovery planning requires embedding into risk and capital management.

Recovery & Resolution Planning: Key Components

- **Core Businesses**
- **Going Concern Scenarios**
  - Vulnerabilities
  - Base Case Scenario
  - Stress Scenarios
  - Stress Test Results
  - Points of Non-Viability
- **Recovery Actions**
- **Resolution Actions**
- **Recovery and Resolution Process**
- **Governance of the Recovery & Resolution Plan**

Recovery & Resolution Plan: Example Structure

Based on regulatory feedback, a recovery plan could take the following structure:

Executive Summary

- **A plan for the crisis management phase**, including mobilization, stabilization, communication and how should the recovery strategy be devised.
- **A plan for the recovery phase**, including a list of the options and presumptive path under different types of stress. This would include a view on what recovery options could be implemented simultaneously, feasibility of options under different scenarios, timing to realize benefits and quantum of the benefit.

Analysis and Evidence to Back up the Executive Summary

- **A clear view on why the recovery plan is credible and executable in a severe stress and any material changes** since the last submission.
- **Governance**, including governance over the plan's preparation and implementation.
- **Strategic analysis**, including a description of the entity or entities covered by the recovery plan and description of recovery options.

Testing the Plan through Scenario Analysis

- **Scenario analysis,** including testing of Recovery Indicators and Options
- **Table top exercises and Fire drills,** including lessons learnt and remediation actions.

Scenarios

In order to develop a realistic recovery plan, it is first important to determine vulnerabilities. The Bank or Group financial plan for the next years is the baseline for stress testing on which the scenarios are built:

Purpose

- Test if options are sufficient in wide range of scenarios (idiosyncratic, systemic, fast and slow).
- Test if the indicators are appropriately selected and calibrated.

Severity

- All scenarios should take the Bank to 'near-default' and therefore recovery plan has to be activated.
- Reverse stress testing is suggested as an appropriate starting place from which to design the scenarios.

Design

- Scenarios should be based on the events and factors most relevant to the Bank. But they should not be too narrow in scope.
- Sufficient set of macro parameters should be provided. This is defined by parameters needed to model key risks, as well as all of those that are required to forecast EWIs and Recovery indicators.
- Granularity of output is required on monthly basis.
- Outputs are required at business line as well as material subsidiary levels.

Recovery & Resolution Actions

Purpose

Recovery and resolution actions (also referred to as options) are the core of the Recovery and Resolution Plan. The firm must identify a set of one or more management actions or strategies designed to maintain or restore financial soundness in a situation of financial stress.

Types

- Options span a number of categories – from capital to commercial actions.
- The main categories are: liquidity and funding, capital and operational actions.

"Best practice" – Have answers to Key Considerations

- What recovery options could be implemented simultaneously?
- How much benefit can be realized?
- What options are possible in different scenarios?
- In addition, have a full implementation for each one of the options

Framework for Option Identification and Analysis

Action analysis is a time consuming and involved process. It is suggested to construct an operating model with full dependency mapping to facilitate embedding within the organization, rather than approaching this as an ad hoc exercise.

Action Examples

Regulators expect firms to identify a comprehensive list of options that can be implemented in various crisis situations. The range of possible measures could include:

1	**Issuance** - Equity or non equity capital issuance.
2	**Dividend** – Reduction or cessation of dividend payments.
3	**Disposals** – Sale stand-alone or complete business.
4	**Cost** – Operational cost savings & bonus reduction.
5	**Asset sales** – Sale of portfolios of assets.
6	**Central Bank** – Use of central bank facilities.
7	**Funding** – Raising funding via money markets, debt issuance or securitization.
8	**LME** (liabilities management exercise) – Exchange of non equity capital for CET1.
9	**Commercial** – Adjustment to pricing or volume of new business (e.g. raising deposits or cutting lending).

Actions: Current Market Practice

There are a number of key considerations that should be addressed first before launching into full action analysis.

How much benefit can be realized?

Bank must identify its most material actions across categories of benefit (e.g. capital, liquidity) as well as across time frame of execution.

The very ‘best’ actions are those that are both material and can be executed rapidly.

All assumptions and valuation methodology needs to be set out. Any possible preparatory measures noted.

What actions are mutually exclusive?

Bank must map how every option interrelates with every other option. This will demonstrate:

– Mutually exclusive options.

– Substitute options.

– Operationally impossible to implement at the same time.

Is there a detailed plan of execution?

Firms should set out:

— Clear timeline for end-to-end process based on requirements for each specific action.

— Identification of barriers to a successful execution.

— Steps required for execution e.g. regulatory approvals, client consents, separability of systems and resources etc.

What actions are possible in different scenarios?

Banks need to consider potential impediments to implementing recovery actions, including any potential impediments arising from what competitors may be doing.

Beyond identifying impediments, firms need to either:

— Identify a remaining set of feasible actions for a scenario.

— Suggest actions for removing impediments.

Stages of a Crisis

Since each crisis is different, different **crisis stages** are established which indicate the level of severity of an event.

Crisis stages are used to indicate that an escalation and preparedness process should be started, which involves analysis as regards to the best way to address the situation, including the **activation of the Recovery Plan**. Crisis stages are also the foundation on which the triggers of the Plan are defined.

Example Crisis Stages:

- Stage 0: Business As Usual (BAU)
- Stage 1: First Signs of a Crisis
- Stage 2: Moderate Crisis
- Stage 3: Severe Crisis
- Stage 4: Extreme Crisis

Early Warning Indicators

Early Warning Indicators (EWI) will not automatically trigger a crisis, but act as a warning signal to allow for actions to be taken to defer, prevent, or prepare for a recovery situation. The realization of a single indicator does not automatically signal the launch of the plan.

Purpose

- Identifies the point in time when management considers activating the recovery plan.
- Allows key risks to be identified during the planning stage.
- Monitors the viability of each recovery action.

Which Indicators to Include?

- Any that have been identified as minimum by your supervising authority. In addition, any that you consider as indicator of risk for your business.
- Indicators should be adapted to the banks risk profile, business model and strategy.
- The number of indicators should be adequate to the size and complexity of the firm and cover a variety of areas.

Key Requirements

- Aligned with the firm's governance (i.e. following current escalation paths) and risk management framework.
- Include forward looking, quantitative and qualitative indicators.
- Indicators should be regularly monitored and breaches should be clearly identifiable (i.e. RAG).

Recovery Triggers

As part of the recovery process, **triggers** should be defined to facilitate decision-making regarding the action of the Recovery Plan.

The triggers of the plan are normally **predominantly quantitative** and are focused on firm-specific liquidity and capital measures.

Quantitative measures should also be complemented with an **overarching qualitative trigger** that encompasses the **expert judgement** of the members of the Board or the responsible Committee, which allow to trigger the Plan if the indicators react slowly to changes in a Bank's risk profile.

Example of Recovery Triggers:

- Capital (e.g. CET1 – Quantitative)
- Liquidity (e.g. Regulatory Reserves (Quantitative/Qualitative)
- Management Expertise (Expert judgement, Qualitative)

Outlook

Recovery Plan Dry-Runs / Table Top Exercises

Recovery Plan Dry-Runs are not a test of IT and business continuity processes.

Dry-runs are simulated exercises of a fast moving financial crisis impacting the bank which test the effectiveness of the banks recovery plan.

These exercises assist in transitioning the recovery plan from a regulatory “tick-box” exercise to becoming a living crisis management tool for the Board and management within a bank.

Dry-runs aim to achieve **three key outcomes**:

1. Demonstrate whether the tested parts of the recovery plan could be implemented promptly and effectively in a crisis situations.

   Example of tested parts of the recovery plans: governance/escalation process, recovery options, communication, co-ordination arrangements.

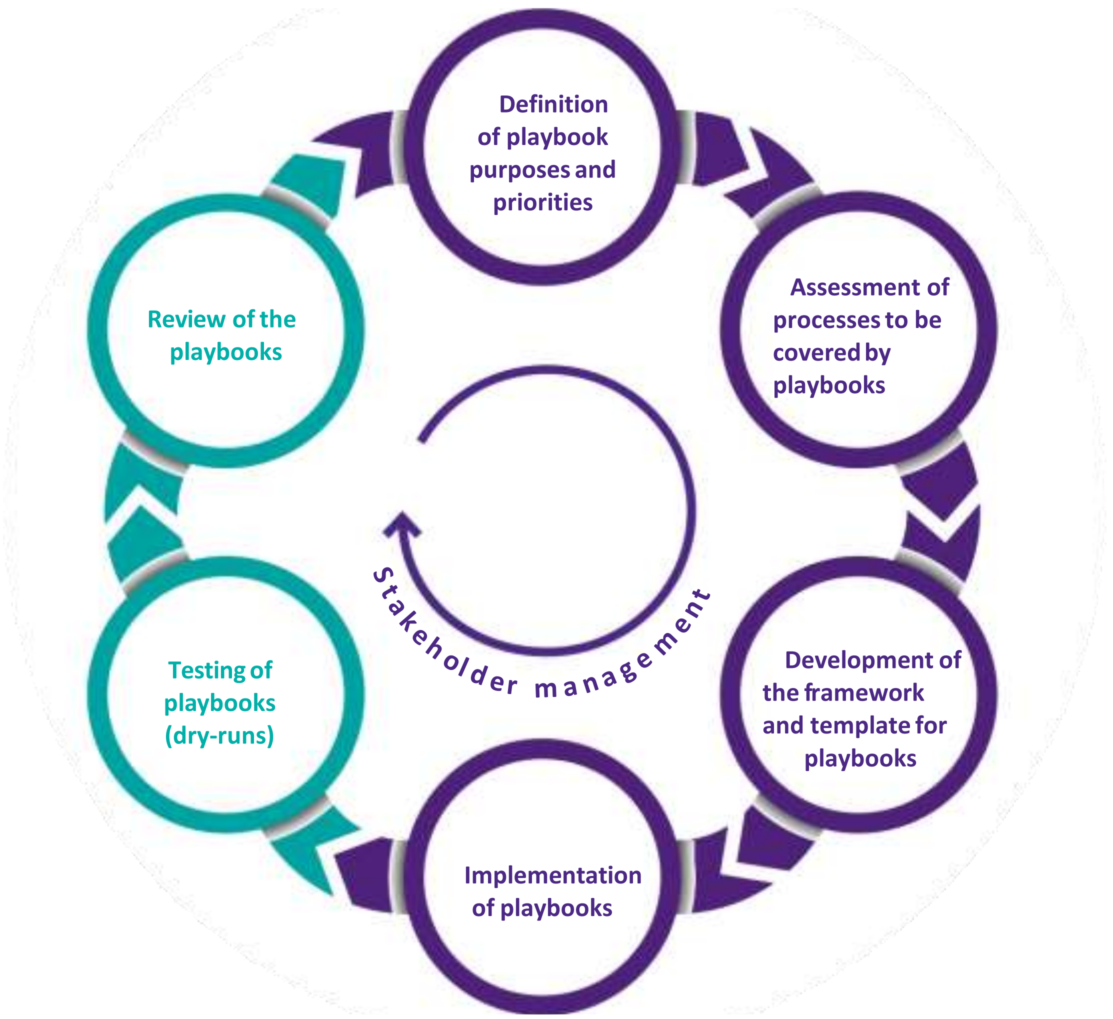
2. Train relevant staff to achieve, test, and maintain proficiency in reacting to crisis situations using the recovery plan (based on a simulated event).

3. Identify areas for improvement and incorporate lessons learnt into the recovery plan.

Playbooks

Playbooks offer a potential solution and act as an implementation guide to summarize key information and clarify the escalation process needed to manage a potential crisis.

A playbook is a dynamic, tailored document that forms part of the overall Recovery Plan package, and is structured to **address the key aspects** that the management of a Bank would need to be aware of to enact their recovery plans during a crisis situation.



Thank You

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