

出國報告

(出國類別：會議)

APEC 金融監理人員訓練倡議-跨境清理/危機管理研討會報告

服務機關：金融監督管理委員會銀行局

姓名職稱：楊斐堯 科長

派赴國家：泰國

出國期間：108 年 12 月 15 日至 12 月 20 日

報告日期：109 年 1 月 10 日

目錄

壹、會議目的.....	2
貳、研討會主要內容.....	3
一、危機管理架構及風險抵減工具.....	3
二、擬定有效危機管理應變計畫.....	4
三、緊急應變計畫之測試、啟動及管理.....	5
四、亞太區各國緊急應變規劃之挑戰.....	6
五、有關復原計畫(Recovery Planning)之規劃.....	8
參、心得與建議.....	9
肆、附錄.....	11
一、Agenda	
二、簡報	

壹、會議目的

APEC 金融監理人員訓練倡議(Financial Regulators Training Initiative, FRTI)係於 1998 年 5 月由 APEC 財政部長會議決議設立，由 ADB 總部秘書處負責協調培訓計畫之設計，聘任講師與辦理相關培訓課程，視會員國之需求、目前主要金融監理議題及相關評估與調查等結果，擬定培訓議題與內容，以提升區域內金融監督機關監理人員之專業技能，並加強 APEC 區域內跨境金融監理之合作。

本次會議主題為「跨境清理/危機管理」，由亞洲開發銀行(ADB)與泰國中央銀行於泰國曼谷共同主辦，會議期盼能進一步擴大 APEC 各會員國監理人員之經驗意見交流網絡，會議邀請 ADB 永續成長及氣候變遷部門負責金融部門顧問之主管 Mr. Junkyu Lee 博士、SEACEN 中心負責金穩定及監理事務之資深金融專家 Mr. Aziz Durrani、ADB 經濟研究及區域合作部門專家 Mr. Kosintr Puongsophol、日本金融廳國際事務處副處長 Mr. Toshinori Yashiki、Promontory Japan 顧問公司執行長 Mr. Tsuyoshi Oyama、德國中央銀行轄下研究機構 Mr. Andreas Igl 教授、ADB 經濟研究及區域合作部門專家 Mr. Jaeseung Suk，以及泰國中央銀行負責金融監理及金融穩定之資深官員擔任講師，以案例研討及學員討論製作簡報方式，瞭解危機管理之架構，風險抵減相關工具、跨境協調及清理，以及如何規劃危機管理之模擬作業。

本次研討會共計有 6 個 APEC 會員經濟體之金融監理機關、中央銀行及存款保險公司派員參加，包括

菲律賓(1 人)、泰國(12 人)、新加坡(1 人)、尼泊爾(4 人)、及我國(1 人)總計 19 人參與。

貳、研討會主要內容

本次研討會之議程詳附件 1，研討會方式係由講師引導學員，採理論實務講解，個案研討及小組討論及簡報分享方式，謹說明研討會重點如次(相關會議資料請詳附錄)：

一、危機管理架構及風險抵減工具

- (一)巴賽爾銀行監理委員會(BCBS)於 2012 年修訂有效核心監理準則(Core Principles on Effective Supervision, BCP)，該準則提及考量銀行未來仍有面臨經營危機之可能性，為降低對該銀行及對整體金融業之負面影響，有效之危機準備及管理、有秩序清理架構及措施，有建置之必要。金融主管機關之責任並非防止銀行倒閉之發生，而是在於透過與其他機關之合作，降低銀行倒閉之機率及減輕負面影響，使銀行倒閉時能以有秩序方式進行。
- (二)各國監理機關已針對近年來發生之金融危機進行分析研究，擬定相關政策、程序或協議已降低危機之影響，部分國家並已擬定具體計畫並加以測試，並分送給相關機關參考。
- (三)依據國際貨幣基金組織(IMF)及世界銀行對各國危機管理及清理之準備工作進行評鑑結果，整體而言有關①危機管理之規劃、②危機時各相關機關權責劃分、③採取緊急措施所需法據、

④境內外相關機關如何分享資訊之協議、⑤緊急流動性之提供，仍有待加強之處，另亦有未執行危機模擬演練(crisis simulation exercises)之情況。

(四)銀行危機通常難以預測，型態也不盡相同，連鎖及外溢效果亦不易掌握，因此危機管理事務相當繁複且耗費時間及金錢。

二、擬定有效危機管理應變計畫

(一)良好危機管理準備可以減輕面臨危機時須採取緊急措施之情況，緊急措施通常成本高且可能衍生未預期外溢效果，因此相關主管機關間之角色及責任應於事前清楚劃分，亦可以 MOU 方式予以規範，惟 MOU 無法確保屆時各機關能有效協同合作及即時分享資訊，因此宜藉由定期討論或監理官會議予以補強。

(二)規劃危機應變計畫時應充分考慮各種可能性極低之情境，例如金融危機衍生自銀行體系、影子銀行或跨境連動效應之影響，天然災害或恐怖攻擊，為避免臨時決策不夠周延或需耗費大量成本，應盡量考量各種可能負面情境，第二波效應、非預期效應及政策方面影響。此外應確保相關決策者有必要授權及權力，同時詳盡規劃及準備有助於危機發生時能採取迅速簡明因應措施。

(三)雖然金融危機因應主要仍為國內事務，惟隨金融市場之國際化，跨國金融主管機關之合作益顯重要，對於涉及跨國金融機構之金融危機，

母國主管機關應主動與主要地主國合作檢視可能影響跨境合作之相關障礙，對於全球系統重要金融機構應建立核心監理官會議之機制。

(四)有效危機管理因應計畫應包含之要素包括：啟動計畫之事件、涵蓋金融機構範圍、不同機關參與危機決策之腳色、採取緊急措施之法據、國內外各機關分享資訊之機制、不受干擾之保密聯繫管道、對銀行提供緊急流動性協助、清理銀行之策略及選擇、提供公共訊息及媒體之聯繫、危機模擬。

(五)有危機管理之權力包括：解任銀行人員及董事、指定接管人、更換銀行管理階層及董事、設立過渡性銀行、終止契約及將銀行全部或部分業務予以出售或合併。

三、緊急應變計畫之測試、啟動及管理

(一)危機模擬：

1. 應於合理頻率下執行，例如每兩年一次；應將實際有決策權之官員納入模擬中，以熟悉危機管理計畫之執行；另危機模擬之結果有助於辨識危機管理計畫之待加強調整處。
2. 危機模擬應測試多種不同挑戰情境，如未預期之跨境複雜情境，且包括模糊但影響可能嚴重之情況。
3. 應依據危機真實發生時需依循之具體協議程序，辦理模擬事宜。
4. 應與參與危機模擬之各參與者分享模擬之

結果及經驗，以瞭解落差及可改善之處。

5. 依據危機模擬之結果，調整危機管理計畫內容及程序。

(二) 危機應變計畫之啟動：

1. 銀行無法繼續經營之認定應盡早作成。
2. 介入或清理銀行之決策應能盡速作成，且相關條件應清楚明訂於法規中，以利銀行及關係人能充分知悉。
3. 因銀行財務及資本可能迅速惡化，因此啟動計畫條件不宜僅依據如資本、流動性等單一條件。
4. 早期介入或糾正計畫之啟動機制應包括量化及質化多樣化指標。

(三) 危機應變規劃之挑戰包括：資深領導階層之承諾及參與、維持計畫及時更新需相當資源、計畫之可靠性及管理應有清楚之責任歸屬；計畫需要相當細節規畫及技術，需有專業技能維持計畫之管理，計畫之模擬相當重要且需定期執行以確保計畫之效能。

四、亞太區各國緊急應變規劃之挑戰

(一) 亞洲有相當金融服務集團於區域內跨境經營，許多集團為混合式集團，由企業擁有或辦理顯著非銀行業務，部分於各國持有系統重要子銀行。

(二) 危機處理主要仍由地主國利益考量主導：金融集團之合併財務情形雖然重要，但法律主體亦相當重要，當集團正常運作時其業務結構會跨

境經營而集團管理，惟當面臨清理時仍需依各地主國當地清理架構清理位於地主國之子機構，因缺乏國際共通之法律架構，母國與地主國於動機、誘因及清理優先次序可能有所衝突。

(三) 跨境合作架構：政府與政府之間應有正式合作協議架構並定期更新，該等協議需事前正式約定並設定合作目標，雙方並需於信賴基礎下交流資料；雙方需致力建立透明可預測且可靠之清理機制，以協助跨境合作事宜，對於雙方之清理工具及策略需進行調和，並可進行聯合危機模擬，以及研究清理所需成本之分攤事宜。

(四) 跨境銀行之挑戰：各國需對於跨國銀行機構之下列事項進行合作：

1. 該銀行集團之資本架構
2. 流動性管理
3. 業務線與法律主體無法對應之問題
4. 各國對於信用風險內部評等法(IRB)處理不一致現象
5. 集團於各國同時擁有系統重要機構所可能引起之傳染效應

(五) 前述挑戰可透過監理官會議尋求可能解決方法：

1. 可共同決定執行聯合檢查。
2. 可對該銀行集團之整體或當地營運角度進行風險評估。
3. 可共同決定對於該銀行集團整體或位於各國之子公司所需施加之資本緩衝。

4. 交換資訊及對於相關模型評估採取一制性標準。

(六) 監理官會議可能面臨之限制：監理官會議非正式組織，僅能做成建議，並無執法效力，就危機之處理能力亦嫌不足。

(七) 跨境危機管理面臨之問題：

1. 各國可能同意對於跨境銀行重整所需費用之分攤。
2. 北歐國家曾於2007年就危機管理之模擬事宜進行合作，但該等國家對於應採取措施無法達成共識。
3. 各國對於其轄管之子公司可能有單獨處理之權力(ring-fencing)，因此子公司之資本或流動性無法於母公司發生危機時提供協助。
4. 因危機發生時處理時效為優先考量，因此地主國對於其自身利益之考量，將優先於集團整體。
5. 最終融通者(lender of last resort)通常未能有明確定義。

五、有關復原計畫(Recovery Planning)之規劃

(一) 歐洲式復原計畫之內容重點包括：應說明關鍵要點之結論、治理之相關安排，包括採取不同復原步驟之程序及時程、復原計畫指標之設計、復原策略之分析，包括核心業務、關鍵功能、內部及外部之交互關聯性及復原方案；對外聯繫及資訊揭露之計畫。

- (二)復原計畫指標之設定：以資本指標為例，於金融機構層面可設定於業務正常營運之早期警示區間，及面臨壓力情況下需啟動復原計畫之指標水位，接下來為主管機關規定需採取早期介入標準，以及需進行清理之標準。
- (三)設定指標時可考慮包括：資本(CET1)、流動性(LCR)、獲利率(ROE)及資產品質(NPL)，並設定該等項目之可容忍標準及可能情境，以及低於可容忍標準時應採取之措施。
- (四)另亦可就前述指標考慮項目再予以細分，如資本可再增加槓桿比率，流動性可增加淨穩定資金比率(NSFR)，此外該等項目亦可增加總體經濟指標，前述指標可與金融機構型態結合對應以利綜整觀察指標所呈現情況並進行比較分析。
- (五)復原選擇方案應包括之重要內容：選擇方案之說明、對財務面之影響評估、可行性分析以及相關假設、治理及執行、對關鍵功能及核心業務之影響，對於外部人之影響及可能產生之系統性影響、以及執行所需之準備措施。
- (六)對於復原選擇方案應訂定相關篩選標準，例如執行之複雜程度、所需之時間以及執行之難易度，並應對如資本、流動性等各項指標之影響予以量化以利比較。

參、心得與建議

- 一、參與 APEC 金融監理人員訓練倡議，有助於瞭解國際金融監理之最新趨勢，相關實務案例研討及經

驗分享亦有助於金融監理品質之強化，爰建議可持續派員出席此項會議，亦有助於增進金融監理之國際交流。

- 二、有鑑於跨國金融機構之業務活動已使各國金融體系更加密切互動，大型金融機構發生危機亦對各地主國之金融體系有所影響，因此跨境之危機管理及清理計畫需要母國與地主國之共同合作，始能將對金融體系之負面影響降至最低。目前已有4家大型國際性銀行於我國設立子銀行，其他外國銀行亦在台設有分行，本會亦已定期應邀出席香港等外國監理機關主辦之監理官會議，就跨境金融監理、危機管理及清理等事宜進行討論，對於跨境金融機構之監理合作有相當幫助，爰建議宜持續積極參與國際監理官會議，深化與各國之金融監理合作。

肆、附錄

APEC FRTI REGIONAL SEMINAR
Cross Border Resolution/ Crisis Management
16–19 December 2019, Bangkok, Thailand

Target Group

This seminar is designed for mid-level staff in central banks or bank supervisory agencies with a minimum of 4-5 years of regulatory experience who are involved in supervision of financial institutions, financial stability, or special resolution unit.

Prerequisites

There will be no pre-course reading materials for this course.

Course Overview

This course focuses on various aspects of cross border resolution and crisis management of financial institutions. The seminar combines theory, with group activities and case studies that will allow participants to understand the concepts and share experiences with each other. Along with examining resolution and crisis management mechanisms, the seminar will cover important topics liquidity management in times of crisis, the importance of the inter-agency coordination for cross-border banking and the key features of effective cyber resilience frameworks and strategies.

Learning Objectives

Upon completion of this course, the participant will be able to:

- understand how effective crisis management contingency plans can mitigate the financial crisis.
- gain knowledge of the key change in crisis management preparedness
- obtain sufficient knowledge of the types of crisis tool and measures and key features of an effective recovery and resolution framework.
- understand the guidelines on stress testing and identify the potential crisis for financial conglomerates.
- gain a broad understanding of the framework of coordination for cross-border banking and learn the key consideration for cross border resolution and challenges in practice.
- understand the importance of developing effective recovery and resolution plan and how it works in the financial crisis.
- gain an overall understanding of the interaction between IT disruption and liquidity crisis. Besides, they will learn how to take appropriate responses by regulators and financial institutions to deal with the cyber-attacks.

What you will receive on completion of this course

Participants who attend the full 4 days of sessions will receive a Certificate of Attendance under APEC Financial Regulators Training Initiative.

Note: This seminar is financed by the People's Republic of China Poverty Reduction and Regional Cooperation Fund.

CASE STUDIES

Case study work is a compulsory activity for this course.

Case 1: The Causes of the Collapse of Royal Bank of Scotland

Case 2: Banking Resolution and Crisis Management In Korea

Case 3: Lessons from recovery in Europe - Perspectives of banks and regulators

Case 4: Mapping Thailand's Financial Landscape: A Perspective through Balance Sheet Linkages & Contagion

APEC Financial Regulators Training Initiative Seminar on Cross Border Resolution/ Crisis Management

16-19 December 2019, Bangkok, Thailand

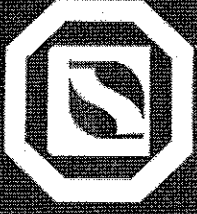
Co-hosted by Bank of Thailand and Asian Development Bank

Hour	Monday 16 December	Tuesday 17 December	Wednesday 18 December	Thursday 19 December
9:00	Participant Registrations (8:30 – 9:15)			
to	Welcome Remarks Jaturong Jantarangs Assistant Governor, BOT			
10:30	Opening Remarks Junkyu Lee Chief of Finance Sector Group, ADB	Emergency Liquidity, Crisis Management Preparedness, Early Intervention and Resolution Regimes Speaker: Aziz Durrani, SEACEN	8. Guidelines on Stress Testing, Methodologies, and Identification of Potential Crisis Speaker: Tsuyoshi Oyama, Promontory Japan	12. Case Study 3: Lessons from recovery in Europe - Perspectives of banks and regulators Speaker: Prof. Dr. Andreas Igl Deutsche Bundesbank
	Participant Introductions (10:00 – 10:15)			
	Regional Policy Discussion and Current State of Financial Connectedness in Asia (10:15 – 10:45) Speaker: Junkyu Lee, Kosintr Puongsophol, ADB			
11:00	Break	Break	Break	Break
to	1. Introduction to Crisis Management Infrastructure and Mitigation Tools Speaker: Aziz Durrani, SEACEN	5. Inter-agency Co- ordination for cross- border banking Speaker: Toshinori YASHIKI, Kazunori NAKATA, JFSA	9. Problem Bank's Resolution and Tools in Europe Speaker: Prof. Dr. Andreas Igl, Deutsche Bundesbank	13. Case Study 4: Mapping Thailand's financial landscape: a perspective through balance sheet linkages & contagion Speaker: Bodin Civilize, BoT
12:30				
	LUNCH	LUNCH	LUNCH	LUNCH
1:45	2. Overview of Crisis Management and Resolution: Early Lessons from the Financial Crisis Speaker: Junkyu Lee, ADB	6. Cyber Risk for Financial Sector Speaker: Kangsuk Lee, Korea Financial Security Institute	10. Case Study 2: Banking Resolution and Crisis Management in Korea Speaker: Jae Seung Suk, ADB/Financial Supervisory Services of Korea	14. Group Presentation: Sharing experience on crisis simulation e.g. best practice for design framework of crisis simulation Moderator: Ms. Runchana Pongsaparn, BOT
to				
3:15				
	Break	Break	Break	Break

Note: This seminar is financed by the People's Republic of China Poverty Reduction and Regional Cooperation Fund.

Hour	Monday 16 December	Tuesday 17 December	Wednesday 18 December	Thursday 19 December
3:30 to 5:00	<p>3. Tour de Table: Experience Sharing by participants on crisis management and legal framework in their countries</p> <p>Moderator: Aziz Durrani, SEACEN</p>	<p>7. Case Study 1: The Causes of the Collapse of Royal Bank of Scotland</p> <p>Speaker: Aziz Durrani, SEACEN (until 6PM)</p>	<p>11. Panel Discussion: Recovery plan and assessment of recovery plans</p> <p>Panelists: BOT, Promontory, FSS, Deutsche Bundesbank</p> <p>Moderator: Mr. Tadlarp Phaolaungthong, BOT</p>	<p>Certificate Presentation ADB / BOT</p>

Note: This seminar is financed by the People's Republic of China Poverty Reduction and Regional Cooperation Fund.



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Introduction to Crisis Management Infrastructure and Mitigation Tools

Aziz Durrani

Senior Financial Sector Specialist

The SEACEN Centre

Session Objectives

1. Importance of Contingency Planning
2. Developing Effective Crisis Management Contingency Plans
3. Testing, Activating and Maintaining Contingency Plans
4. Overview of Recovery and Resolution Planning
5. Contingency Planning Challenges in Asia-Pacific



Importance of Contingency Planning



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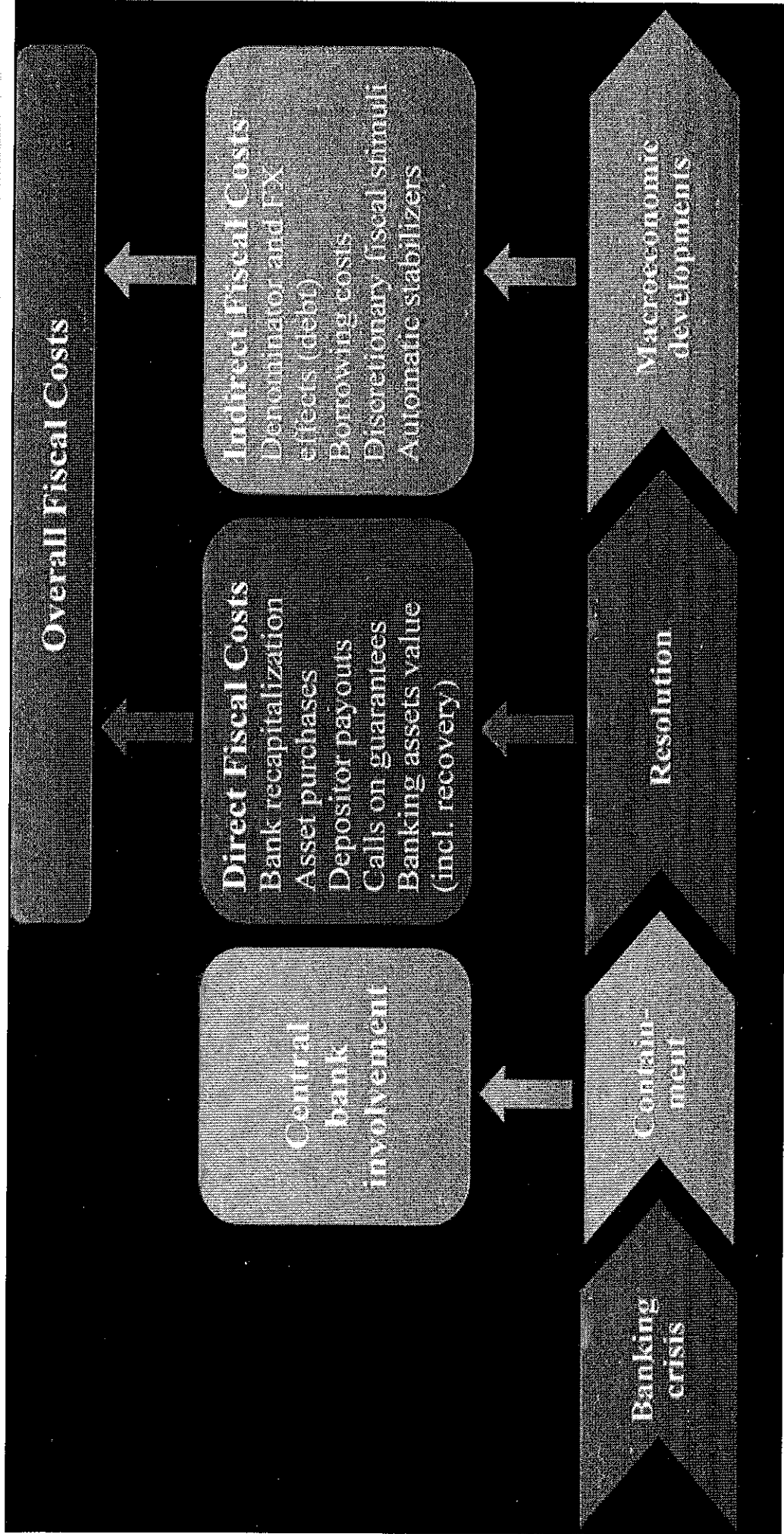


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Systemic Banking Crises

- Since 2007 there have been 25 new systemic and borderline systemic banking crises, mostly in advanced economies.
- The cost of government intervention in Iceland and Ireland, for example, amounted to more than **40% of GDP**, and public debt increased by **more than 70% of GDP in 5 years** (Laeven and Valencia, IMF, 2013).
- The most recent wave of crises post 2007 saw a **median increase in public debt of more than 24% of GDP**, with the increase in some countries being more than double this amount (Deutsche Bank, 2013)

Costs of Banking Crises



Crisis Management

- Relevant authorities **analyze, discuss and develop contingency measures** or other remedies that may be applied during a crisis. These include policies, procedures or arrangements that are intended to reduce the adverse impacts of a financial crisis.
- A comprehensive plan is developed, tested and disseminated to relevant authorities.
- **Crisis resolution takes place through the application of the crisis management measures** set out in the plan, contextualized to the nature of the crisis.

Basel Committee on Banking Supervision (BCBS)

“Core Principles on Effective Supervision” (Basel Core Principles or BCP):

- Issued 1997, revised 2006 and 2012
- 29 minimum standards for sound prudential regulation and supervision of banks and banking systems
- **Latest revisions reflect crisis lessons learned**
- Compliance assessed by IMF during their Financial Sector Assessment Program (FSAP)
- BCP used by countries in self-assessments

BCBS' Core Principles for Effective Supervision Revised 2012

Excerpt from press release accompanying issuance of 2012
BCP states that the revisions reflect an:

**“...increasing focus on effective crisis management,
recovery and resolution measures in reducing both the
probability and impact of a bank failure.”**

Source: BCBS Press Release 14 September 2012, available at www.bis.org



2012 BCP

“Banks will, from time to time, run into difficulties, and to minimize the adverse impact both on the troubled bank and on the banking and financial sectors as a whole, effective crisis preparation and management, and orderly resolution frameworks and measures are required.”

Source: 2012 BCP, p. 6, available at www.bis.org



2012 BCP

“It should not be an objective of banking supervision to prevent bank failures. However, supervision should aim to reduce the **probability and impact** of a bank failure, including by working with resolution authorities. So that when failure occurs, it is in an **orderly manner.**”

Source: 2012 BCP, p. 4, available at www.bis.org



Previous IMF/World Bank FSAP Findings on Crisis Management and Resolution Preparedness

- Insufficient crisis management planning
- Insufficient specification of roles of national authorities in a crisis
- Insufficient legal powers to take various emergency actions in a crisis
- Insufficient information sharing arrangements with relevant authorities both domestically and cross-border
- Insufficient or nonexistent arrangements for providing emergency liquidity to banks
- Insufficient specification of failing/failed bank resolution strategies/options
- Not conducting crisis simulation exercises

Source: Zamorski, Michael and Lim, Vincent Choon-Seng, "Financial Stability Insights from Recent IMF/World Bank FSAPs," *SEACEN Financial Stability Journal*, November, 2013. Based on analysis of 22 FSAP Assessments conducted during 2012 and 2013.

Impediments to Effective Crisis Management in the U.S./Eurozone 2007-09

- Major differences in national resolution regimes
- Absence of mutual recognition and agreements
- Lack of planning for handling stress and resolution
- Home-host coordination and coordination among domestic authorities was, in many cases, weak
- Lack of legal gateways and protocols for cross border information-sharing

Banking Crisis Management

- Banking crises are difficult to predict and whilst they are not exactly alike, they are frequently preceded by periods of increasingly risky lending practices.
- Crises “knock-on effects” and spillovers can also be difficult to predict.
- “Crisis management is messy, time-consuming and costly”*.
- Last major Asia Pacific banking crisis in 1997-98 was characterized by rapid onset and contagion effects.

*April 15, 2010 Speech by Mr. Stefan Ingves, Governor of the Sveriges Riksbank and Chairman of the Basel Committee on Banking Supervision.

Developing Effective Crisis Management Contingency Plans



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Crisis Management and Resolution

- **Good and thorough preparation** is the key to avoiding ad hoc decision-making in the midst of a crisis, which may be costly, have adverse and unintended consequences and spillovers.
- The **roles and responsibilities** of national authorities involved in crisis management and resolution should be understood beforehand – sometimes these arrangements are set forth in Memoranda of Understanding (MOU) to avoid confusion later.
- MOUs cannot guarantee trust or effective working relationships and timely information sharing among relevant parties and decision makers. So MOUs need to be **reinforced by regular supervisory colleges / discussions and meetings.**



Crisis Contingency Planning

- Helps avoid the mindset that “everything is fine, it can’t happen here” – multiple threats exist, for example:
 - Financial crises that spread to or emanate from the banking system, the shadow banking system or cross-border linkages
 - Natural disasters
 - Terrorist attacks
 - Pandemics
- Avoid potentially incorrect and/or costly ad hoc decisions by considering:
 - A range of possible adverse scenarios
 - Possible second order impacts
 - Unintended consequences
 - Policy issues

Crisis Contingency Planning

- Ensures decision makers have necessary authority and powers
- Thorough planning and preparation promotes quicker and easier action should a crisis materialize
- Staff are better prepared to act on an informed and planned basis versus reactively

Financial Stability Forum Principles for Cross-Border Co-operation

- While financial crisis management remains a broadly domestic concern, the growing interactions between national financial systems require international co-operation by authorities.
- Home authorities should lead work with the key host authorities to look at the practical barriers to achieving co-ordinated action in the event of a financial crisis involving specific firms, for every cross-border bank identified by the FSF as having or going to have a core supervisory college.

Crisis Contingency Planning: Include Low Probability, High Impact Events

- Avoid failing to adequately plan for crises due to “normalcy bias” or failing to consider the possibility that low probability, high impact events can occur
- Excerpts from Federal Open Market Committee’s August 2007 minutes:

“My forecast for the most likely outcome for output over the next few years is.....growth a little below potential for a few quarters, held down by the housing correction, and the unemployment rate rising a little further.”

- Donald Kohn, Vice Chairman of the Federal Reserve Board of Governors



Elements to Be Covered in an Effective Crisis Management Contingency Plan

- Triggering events that cause the plan to be activated
- Coverage: Banks...and? Other financial intermediaries? Financial infrastructure (e.g., payment systems)
- Crisis decision making roles of various national authorities
- Legal powers to take emergency actions
- Information sharing protocols with relevant authorities, both domestic and foreign

Elements to Be Covered in an Effective Crisis Management Contingency Plan

- Uninterrupted secure communications capabilities
- Providing emergency liquidity assistance to banks
- Failing/failed bank resolution strategies/options
- Disseminating public information and dealing with the media
- Crisis simulation exercises
- Plan maintenance

Crisis Management Powers

Examples of powers that may be needed to avert or deal with a banking crisis:

- Removal of bank officers and directors
- Power to appoint receiver
- Forcing changes in management officials and /or board of directors
- Set-up and operate a bridge bank
- Terminate contracts
- Sell / merge parts or all of the bank

Crisis Management Powers

Examples of powers that may be needed to avert or deal with a banking crisis:

- Termination of bank's deposit insurance
- Ability to share information with other relevant domestic authorities
- Ability to share information with relevant foreign authorities
- Provide emergency liquidity facilities
- "Cross guarantee" provisions whereby bank failure costs are able to be recouped by assessing commonly controlled banks for financial losses

Testing, Activating and Maintaining Contingency Plans



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Crisis Simulations

- Conducted at reasonable intervals – at least every two years?
- Include actual decision-makers in the simulation to increase realism and familiarize them with the crisis management plan
- Include the actual members of the crisis team
- Simulations can identify CMP enhancements/modifications

Crisis Simulations

- Test **multiple scenarios that pose different challenges**, such as unforeseen cross-border complications; include plausible but severe scenarios
- Conduct simulations under **physical arrangements similar to those in a real crisis**
- Discuss simulation outcomes and experiences with the participants and determine gaps and improvement opportunities
- Based on the simulation outcomes, **adjust the crisis plan** and handbook where necessary

Activating the Crisis Contingency Plan

- The determination and recognition of when a bank is or is expected to be in serious financial difficulty should be made early
- The intervention and resolution process should be initiated promptly and on the basis of criteria clearly defined in law or regulation, and should be well understood by banks and their stakeholders
- Because a bank's financial performance and capital position can deteriorate quickly, trigger mechanisms based on single measures such as capital insolvency, illiquidity or poor quality of assets may not be sufficient
- Effective trigger mechanisms for early intervention or corrective action should include a variety of **relevant indicators of both a quantitative and a qualitative nature**

Source: International Association of Deposit Insurers



Crisis Contingency Planning - Challenges

- Senior leadership commitment and involvement
- Keeping the plan up to date is resource intensive
- Clear “ownership”/accountabilities for ongoing plan maintenance
- Plans are very detail oriented or highly technical, requiring specific skill sets to maintain
- Periodic simulation exercises are essential to ensure continued plan relevance

Overview of Recovery and Resolution Planning



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Characteristics of Orderly Bank Resolutions

- Public trust and confidence in the banking system is preserved
- Bank customers (primarily depositors and loan customers) of the failing/failed bank experience a “seamless” transition from the transfer of their business to the new bank
- Adverse spillover effects are minimized
- Resolution process is completed in a timely manner
- Costs of the resolution are minimized

Key Success Factors in Orderly Bank Resolutions

- Strong, independent organizational leadership
- Adequate powers/clear legal authority to act/legal protections – the right architecture
- Adequate resourcing and expertise
- Effective working relationships with other domestic safety net players (including timely information-sharing)
- Strong cross-border co-operation
- Ability to fund firms in resolution
- Effective, efficient and transparent deposit insurance scheme

Resolutions Options

- Highly dependent on the size and nature of the crisis
- Major crises need multiple resolution strategies which are developed beforehand
- Options can be developed in advance and tailored to individual failing banks' circumstances
- Develop hierarchy of desired resolutions strategies
- It is generally less costly and less disruptive to keep assets (i.e., loans) in the private sector
- Proper incentives minimize moral hazard

Bank “Solvency” vs. “Viability”

- Solvency, from an accounting perspective, exists when a bank's assets exceed its liabilities. Unrecognized asset impairments may mask an insolvent condition.
- Legal definitions of solvency may differ from accounting definitions and vary across jurisdictions. Banks which report positive capital, but are unable to pay liabilities as and when the fall due, may be deemed insolvent in some jurisdictions, which may be grounds for intervention and receivership.

Bank “Solvency” vs. “Viability”

- A viable bank is in sound financial condition, is expected to remain so, and can conduct normal business.
- A bank may be appear to be solvent, but not be viable, due to severe financial weaknesses.
- Non-viable banks pose “moral hazard” and may engage in unsound practices, since they have less (or nothing) to lose, and that can adversely impact sound banks.

Moral Hazard

- A party to a transaction has an incentive to take excessive risk knowing that the impact of an adverse outcome will not be borne by them.

Intervention Powers - Basel Core Principles

BCP 8 – Supervisory Approach

An effective system of banking supervision requires the supervisor to develop and maintain a forward-looking assessment of the risk profile of individual banks and banking groups, proportionate to their systemic importance; identify, assess and address risks emanating from banks and the banking system as a whole; ***have a framework in place for early intervention; and have plans in place, in partnership with other relevant authorities, to take action to resolve banks in an orderly manner if they become non-viable.***



Intervention Powers - Basel Core Principles

BCP 11 – Corrective and Sanctioning Powers of Supervisors

The supervisor acts at ***an early stage*** to address unsafe and unsound practices or activities that could pose risks to banks or to the banking system. The supervisor has at its disposal an ***adequate range of supervisory tools to bring about timely corrective actions***. This includes the ability to revoke the banking licence or to recommend its revocation.



2012 BCP

Principle 10 – Supervisory Reporting

Essential Criteria 6:

The supervisor has the power to request and receive any relevant information from banks, as well as any entities in the wider group, irrespective of their activities, where the supervisor believes that it is material to the condition of the bank or banking group, or to the assessment of the risks of the bank or banking group **or is needed to support resolution planning**. This includes internal management information.

Source: 2012 BCP, p. 33, available at www.bis.org



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Key Attributes of Effective Resolution Regimes – Financial Stability Board

Key Attribute 3 - Entry into Resolution

Resolution should be initiated when a firm is no longer viable or likely to be no longer viable and has no reasonable prospect of becoming so.

The resolution regime should provide for timely and early entry into resolution before a firm is balance-sheet insolvent and before all equity has been fully wiped out. There should be clear standards or suitable indicators of non-viability to help guide decisions on whether firms meet the conditions for entry into resolution.

- Resolution authorities should have at their disposal a broad range of resolution powers.

Financial Stability Board, October 2014



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Prompt Corrective Action (PCA)

A set of progressively severe regulatory corrective measures taken against banks exhibiting deteriorating financial performance or behaviors.

Purpose:

- Reduce risk-taking by weak financial institutions
- Require prompt, and often non-discretionary, action by regulatory authorities
- Reduce the likelihood of supervisory forbearance
- Lower the cost of failed bank resolutions by requiring **early intervention** in problem financial institutions

Resolution Powers

- Early Intervention
- License revocation grounds
- Power to appoint receiver
- Setup a bridge bank
- Terminate contracts

Resolution Powers

- Termination of bank's deposit insurance.
- Allow prospective failing bank purchasers access to a bank's books and records to perform due diligence prior to submitting a bid.
- "Cross guarantee" provisions whereby bank failure costs are able to be recouped from other parts of the financial group.

Contingency Planning Challenges in Asia-Pacific



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Asia Pacific Context

- Asia has many financial services conglomerates operating across the region.
- Some groups are “mixed conglomerates” either owned by commercial enterprises or conducting significant non-banking business in the group.
- Some groups have systemically important banks in more than one jurisdiction.

National Interests Drive Crisis Resolution Decisions

“Global banks are global in life but national in death.”

- Former BoE Governor Mervyn King

Conglomerates’ consolidated financial position is important, but legal entities matter.



Multinational Conglomerates



The inherent nature of banks that are part of multinational conglomerates
"Global in life...."

Complex group structures across borders, in multiple currencies and time zones
BUT functions as a single entity:

- i. matrix management structures and centralised functions, legally separated with no de facto independence
- ii. through cross-guarantees and cross-default provisions

.....but national in death"

Localised resolution framework

- i. Established by national law, answerable to the national parliament
- ii. Absence of international legal framework
- iii. Multiplicity of regulatory actors - Conflicting motivations, incentives and priorities of home and host authorities



Realistic Expectations of Cross-Border Co-operation

Arrangements need:

To be Formalised: Government to government agreement. Regularly reviewed and updated.

“Pre-nuptials”: Effective ex-ante agreement to govern the relationship and set expectations e.g. bilateral or multilateral MOU and alignment of incentives. *Recognise that cross-border agreement is not a solution to all possible issues.*

Trust: Facilitate free flow of information to support analysis of information, contact details, assessment of performance and gravity of issues.

Realistic Expectations of Cross-Border Co-operation

Honesty: Promote transparency, predictability and accountability in resolution to effectively support cross-border activities. Identification of walkway points in cross-border agreements.

Commitment and Perseverance: Promoting convergence of principles and consolidation of resolution instruments and approaches, leadership and accountability.

Effective Communication: Develop a common language, understanding of the triggers for entry and exit.

Contingency Planning: conflict resolution mechanisms, sharing of resolvability assessments, joint simulations and war games and methodology of allocating burden/cost of resolution.

Systemically Important Banks

- If a bank is large or provides critical services, it may be deemed “systemically important,” meaning problems at that institution could escalate or be of sufficient magnitude to affect the overall stability of the financial system.
- Resolution and recovery planning for systemically important banks is typically complex and resource intensive.



Challenges of Cross-Border Banking

- Maintaining financial stability and managing a crisis adds to the general challenges of cross-border banking. When several jurisdictions are dealing with a cross-border banking group, jurisdictions have to cooperate and agree on:
 - Capitalization of the group
 - Liquidity management within the group
 - The problem that business lines don't neatly correspond to the legal structure
- These problems are compounded by the limited powers granted to host supervisors of foreign branches.

Challenges of Cross-Border Banking

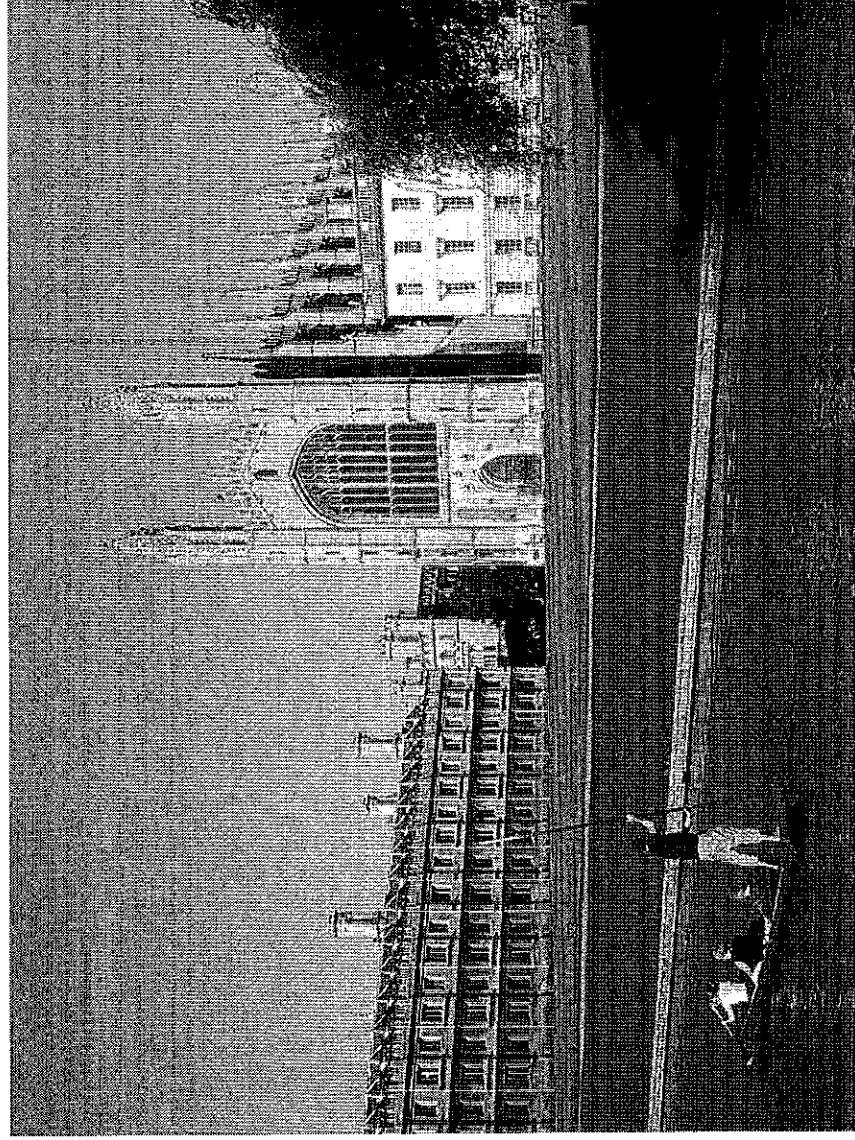
Other challenges requiring cooperation in cross-border banking are:

- There may be inconsistencies across jurisdictions in IRB ratings
- There may be contagion, especially if entities of a banking group are systemic in more than one jurisdiction.

A possible solution can be found in the use of supervisory colleges:

- The colleges can agree on a joint examination plan.
- They can conduct risk assessments at a group and local level.
- They can decide on joint capital and liquidity buffers for the group and each of its entities.
- They can agree on consistent model evaluation.
- They can exchange information and raise issues of emerging risks. But...

Some Limitations of Supervisory Colleges



Supervisory colleges are NOT formal decision-making bodies – they may make joint recommendations, but they can't enforce

Colleges are insufficient for crisis situations

Foreign branches pose special problems

Special Challenges of Foreign Branches

The branch structure poses challenges for cross-border supervision.

- First, branches don't have capital. Host supervisors are locked out of group decisions on group capital.
- Powers of host supervisors are often limited.
- Home supervisors may not agree on measures (such as lower minimum LTVs) required by host supervisors.
- There is no way to prevent liquidity or other assets flowing out of the foreign branch to the home office.
- There may be branches from other jurisdictions "outside the group," necessitating multiple negotiations with other supervisors.
- Branches may be systemic in the host country, but not in the home country, so the home supervisor doesn't sense the same degree of urgency.

Problems of Cross-Border Crisis Management

Crisis management is challenging in a cross-border setting:

- Countries may not agree on how to share the fiscal costs from any necessary recapitalization of a bank that is active in multiple jurisdictions.
- The Nordic countries engaged in crisis management simulation in 2007 – but authorities didn't agree on measures to be taken.
- Individual jurisdictions may have laws for “ring-fencing” subsidiaries, so that capital and liquidity can't be drained out to help the group as a whole.
- In a real crisis, there is a “need for speed” and national interests tend to dominate of the interests of the group as a whole.
- “Lender-of-last resort” tends to be poorly defined.

Summary Points

- Prevention is the key to avoiding financial instability and crises.
- Banking crises are not isolated events – they have occurred frequently and are costly.
- Sound contingency planning is key to orderly, cost effective crisis management and resolutions.
- 2008 U.S./Eurozone Crisis lessons learned.
- Effective crisis contingency plans require on-going commitment, senior management support and testing.
- Asia Pacific has large multinational conglomerates that necessitate effective cross-border co-operation.

Summary Points

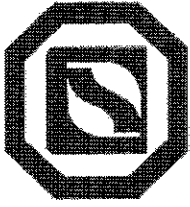
- Some improvements have been made after the crisis, but it is not clear if the next crisis will be handled quicker with less cost to the taxpayers or the economy as a whole.
- In the US, there is still no formal authority given to the Fed or any other agency to use macroprudential tools other than the Countercyclical Capital Buffer. There is still no explicit authority to coordinate and oversee crisis management.
- In Europe, the Bank Recovery and resolution Directive (BRDD), whilst comprehensive, was ignored in Italy when bailing out two of its banks in 2018.
- Central Banks can no longer rely on cutting interest rates and quantitative easing to help if the next financial crisis emerges in the near future.

Q & A



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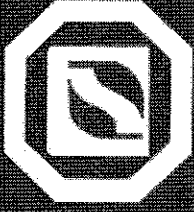
Thank You

Our VISION

To be the Regional Learning Hub for Central Banks in the Asia-Pacific Region.

Our MISSION

To build capacity in central banking and foster networking and collaboration.



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Lessons from recovery planning Perspectives of banks and regulators

APEC: Seminar on Cross Border Resolution/ Crisis Management

Prof. Dr. Andreas Igl

University of Applied Sciences of the Deutsche Bundesbank

Bangkok, December 2019

Disclaimer: The presentation represents the speaker's personal opinion and does not necessarily reflect the views of the Deutsche Bundesbank.

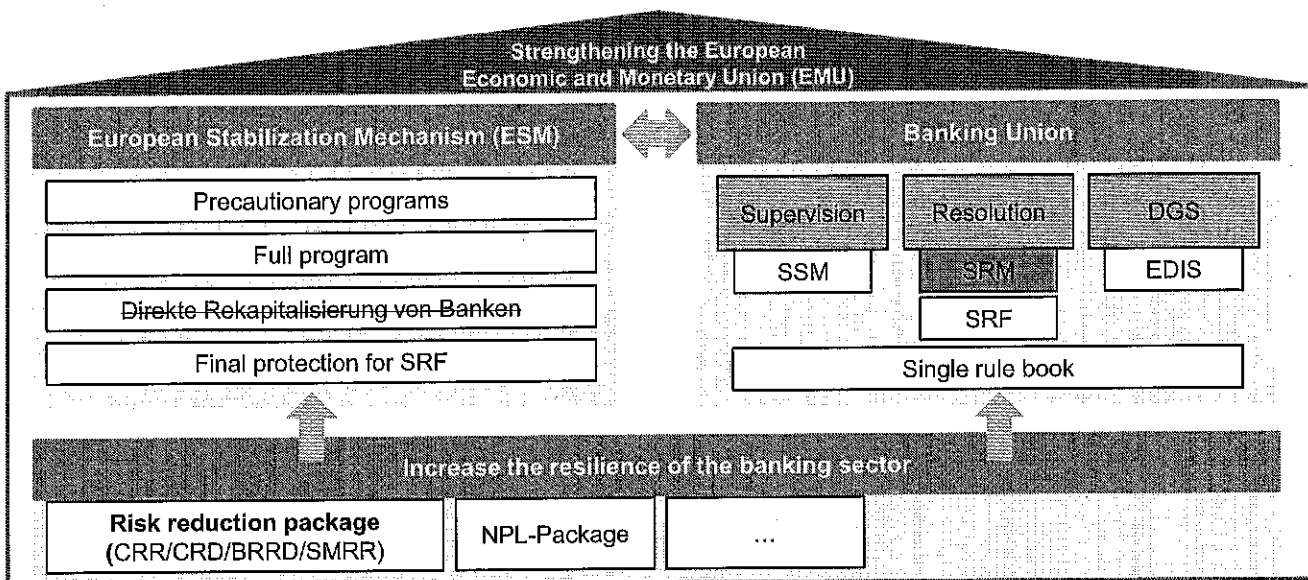
Agenda

1| Introduction

2| Lessons from recovery planning

References

1| Introduction



Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 3

Source: In Anlehnung an Jäger (2019): Laufende Überarbeitung von CRR & CRD / Umsetzung der neuen Baseler Vorgaben in der EU; 1. Forum Bankaufsichtrecht

Agenda

1| Introduction

2| Lessons from recovery planning

References

Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 4

2| Lessons from recovery planning

Objective

Recovery plan – plan providing for measures to be taken by the institution to restore its financial position following a significant deterioration of its financial situation!

Outline and content of an „European Recovery Plan“:

1. Summary of the key elements in the plan
2. Governance arrangements, including escalation procedures & timelines (Governance framework)
3. System of recovery plan indicators
4. Strategic analysis
 - Core business lines
 - Critical functions
 - Internal and external interconnectedness
 - Recovery options
5. Communication and disclosure plan
6. Analysis of preparatory measures

Focus

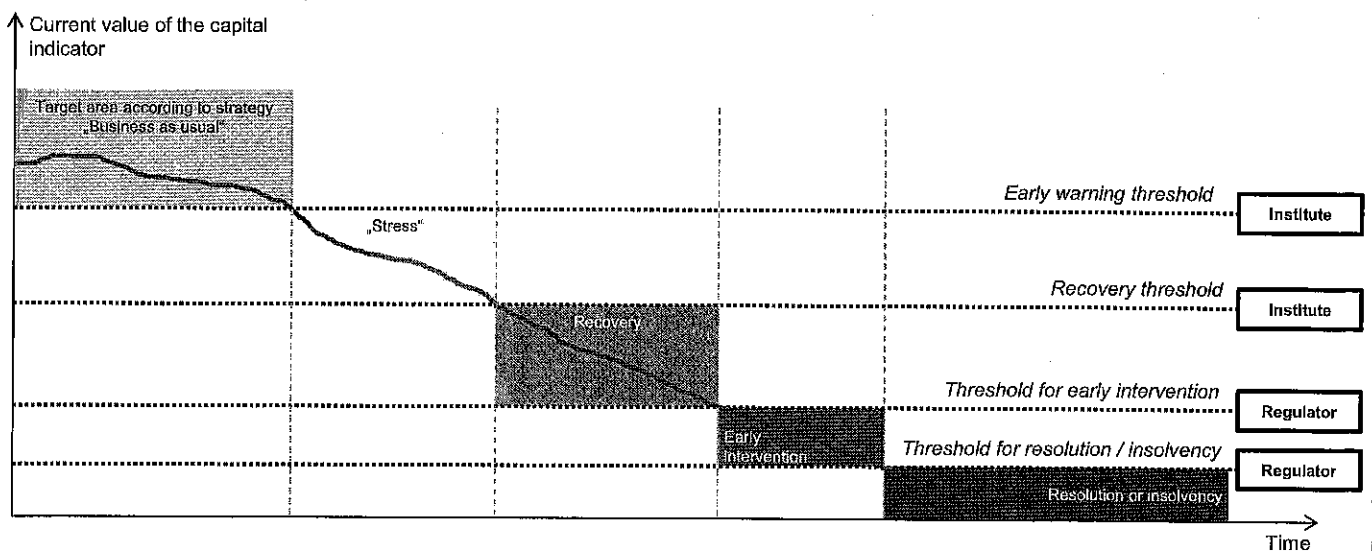
Focus

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December 2019
Page 5

Source: inspired by Eley (2016) - Supervisory assessment of recovery plans; EBA Workshop.

2| Lessons from recovery planning

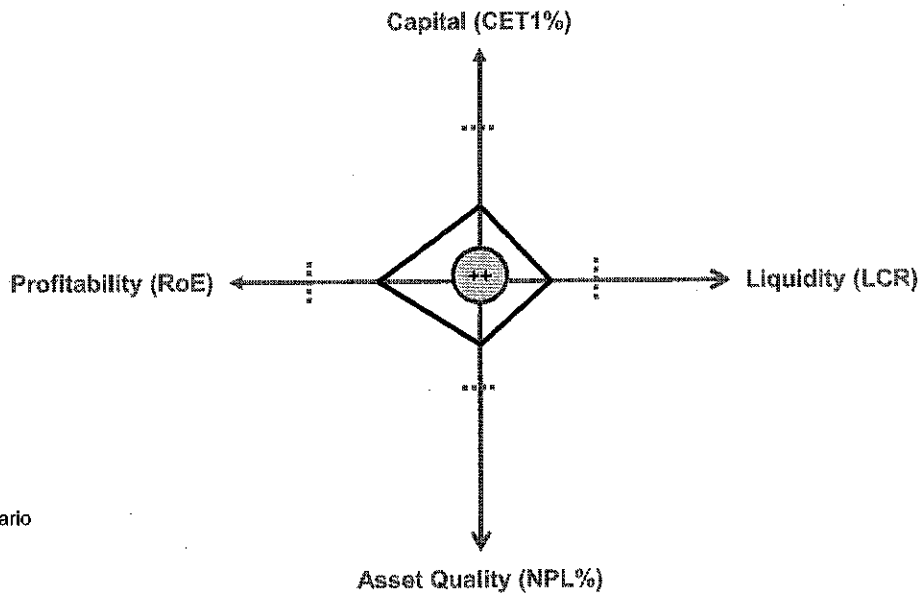
Delimitation using the example of the development of a capital indicator



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December 2019
Page 6

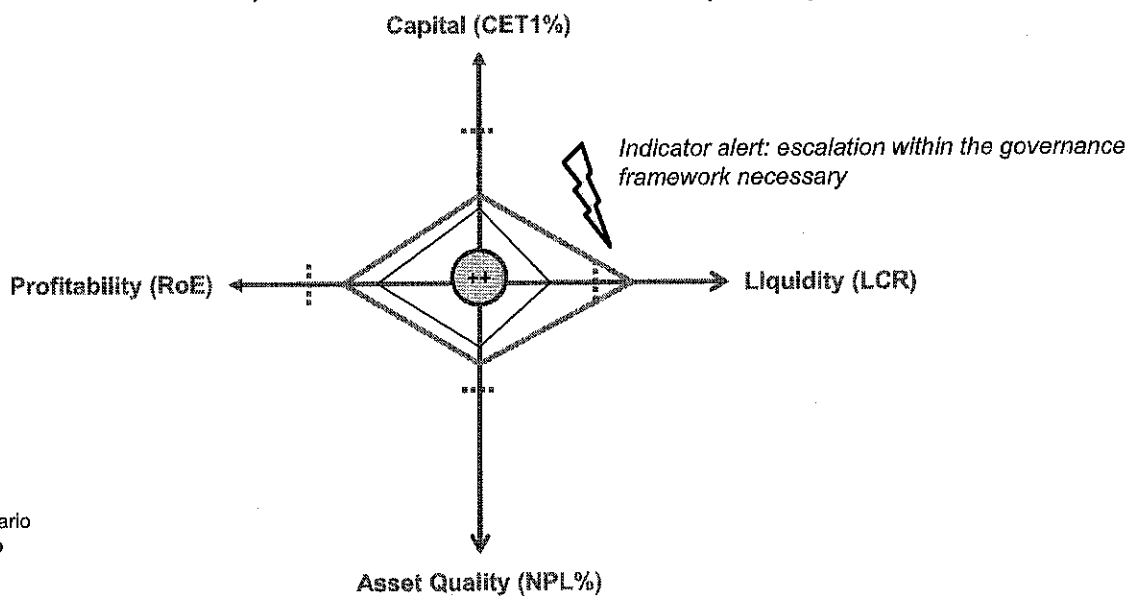
Source: Eigene Darstellung in Anlehnung an Ketsiadis (2014)

2| Lessons from recovery planning
Interaction of indicators, measures and scenarios (1 of 3)



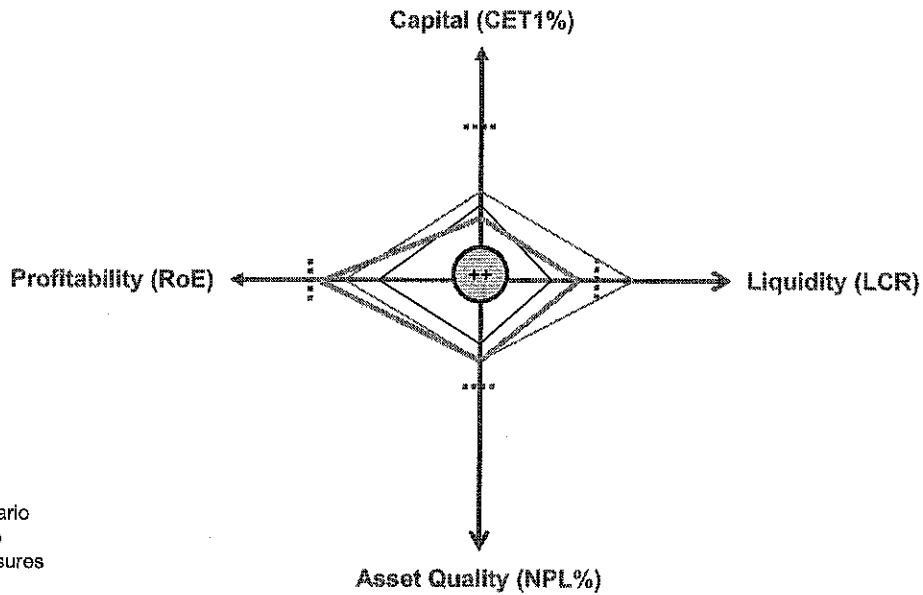
Legend:
 ---- Threshold
 — Planning scenario

2| Lessons from recovery planning
Interaction of indicators, measures and scenarios (2 of 3)



Legend:
 ---- Threshold
 — Planning scenario
 - - - Crisis scenario

2| Lessons from recovery planning Interaction of indicators, measures and scenarios (3 of 3)



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December 2019
Page 9

2| Lessons from recovery planning Recovery indicators – Benchmarking

Lesson:
Further development of
banking dashboards

Bank category	Capital		Liquidity		Profitability		Asset quality		Market based		Macro-economic				
	CET1 ratio	TC ratio	Leverage ratio	LCR	NSFR	Cost of risk/credit funding	RoE or RoA	significant operational losses	APL growth rate	Coverage ratio	Rating downgrades/ upgrades review	CDS spread	Stock price variation	GDP variations	CDS of sovereigns
All banks															
Retail lender															
G-SIB															
Small domestic lender															
Corporate/ Wholesale lender															
Sectoral lender															
Universal bank															
Diversified lender															
Custodian and asset management															

Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 10

2| Lessons from recovery planning Recovery indicators – Benchmarking

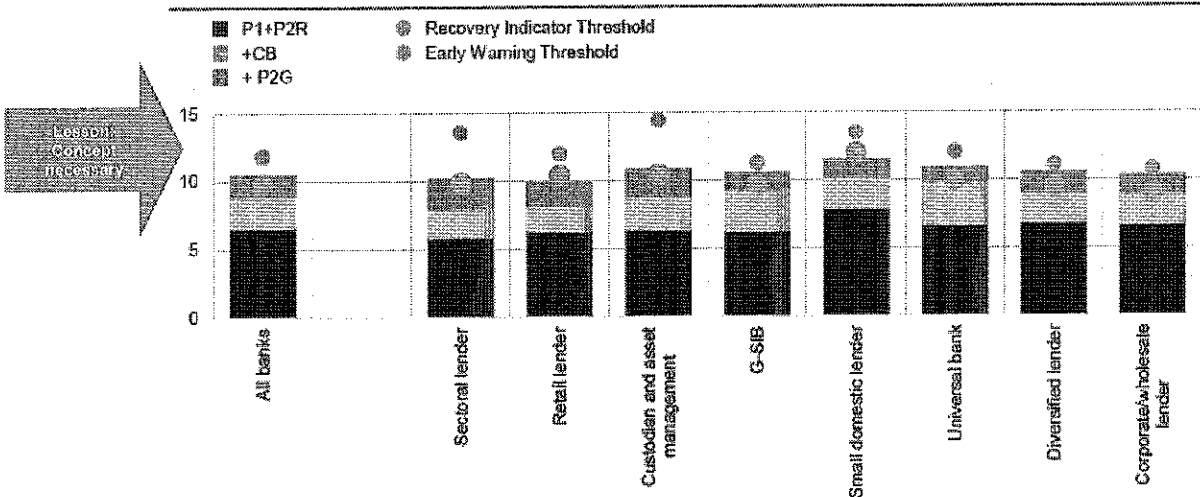


Bank category	Capital			Liquidity			Profitability		Asset quality		Market based			Macro-economic
	CET1 ratio	TC ratio	Leverage ratio	LCR	NSFR	Excess liquidity buffer	ROE or ROA	Operational losses	NPL growth rate	Coverage ratio	Rating downgrade/upgrade review	CDS spread	Stock price variation	GDP variations
All banks														
Total assets < 30														
Total assets 30-100														
Total assets 100-300														
Total assets > 300														

Source: Based on recovery plan data from the standard reporting template submitted by SAs in 2017.
Notes: Dark green indicates full usage (by all banks in the category) and dark red indicates no usage (by any bank in the category). Other colours indicate various intermediate levels of usage.

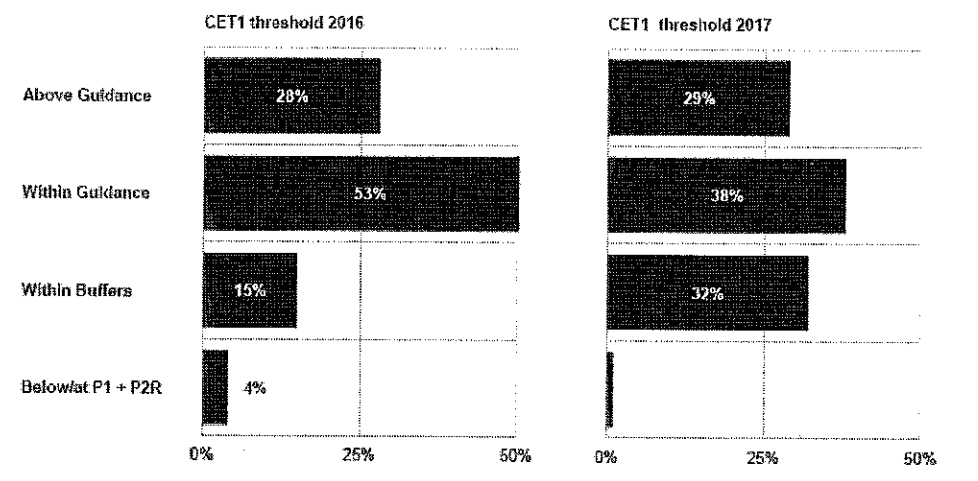
2| Lessons from recovery planning Recovery indicators – Calibration of thresholds

Benchmarking analysis – calibration of CET1 indicator for 2016 and 2017



2| Lessons from recovery planning

Recovery indicators – Benchmarking

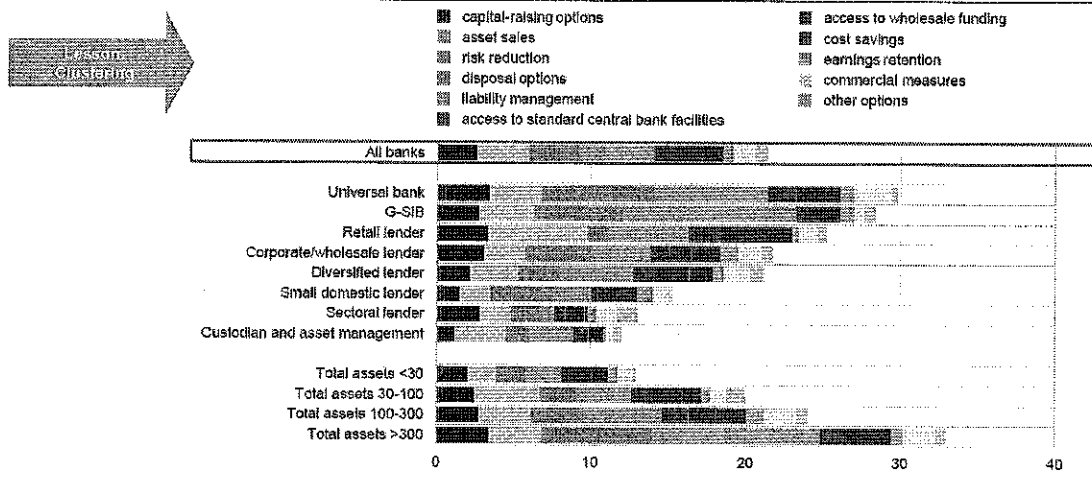


Source: Based on recovery plan data from the standardised reporting templates submitted by SIs in 2016 and 2017.
 Note: "Within" includes at the relevant threshold.

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Number of recovery options

Benchmarking analysis: average number of recovery options by category of SIs



Source: Based on recovery plan data from the standardised reporting templates submitted by SIs in 2017.
 Notes: G-SIB = globally systemically important bank. Categorisation based on internal business model classification. Size measured as total assets (in EUR billions).

2| Lessons from recovery planning

Standardized description of recovery options (1 of 2)



Example of which elements to include when presenting recovery options

Title	Description
Overview of the option	General description of the recovery option, its scope and purpose and implementation timeline.
Financial impact assessment	Presentation of the main figures related to the financial effect of the option on capital, risk-weighted assets, liquidity and profitability. Impact assessments take into account different market conditions and present maximum and minimum achievable results in terms of both capital and liquidity.
Feasibility assessment	Includes: the identification of the main risks associated with the option, making a distinction between financial, operational, reputational, legal and business model risks; considerations of possible rating downgrades as a result of implementing the option; possible legal constraints that could affect the implementation of the option; considerations of the impact of the structure of the group and any intragroup arrangements on the implementation of the option (any practical or legal impediments to the prompt transfer of own funds or the repayment of liabilities or assets within the group); and key regulatory and legal issues (shareholder/third-party approval, pre-emption rights, breach of contractual covenant, stopping a service line, competition law contractual obstacles, tax issues, pensions issues and human resources issues).
Assumptions underlying impacts	Description of the main assumptions relating to the feasibility of the option and its impacts, including on the marketability of core business lines, operations and assets to be sold or the behaviour of other financial institutions.

2| Lessons from recovery planning

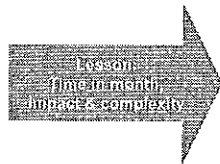
Standardized description of recovery options (2 of 2)

Governance and implementation	Description of the internal decision-making process, including the timeline and the different steps involved in deciding on the option and implementing it. Description of the information required in order to implement the option and the availability of this information. For groups only, presentation of the legal entities within the group which would be involved in implementing the option.
Impact on critical shared services, critical functions and core business lines	Description of the impact on critical shared services of implementing the option and assessment of how the continuity of operations can be maintained if the recovery option is implemented. Description of any measures necessary to maintain continuous access to relevant financial market infrastructures, to preserve the continuous functioning of the bank's operational processes (including infrastructure and IT services) and, where the option involves the separation of an entity from the group, an explanation of the impact on the group. Description of the expected impact of implementing the option on the capacity of the bank to perform critical functions as well as on its core business lines, franchise value/reputation and business model.
Impact on stakeholders and systemic consequences	Description of the impact of the option on external stakeholders (shareholders, customers, counterparties, etc.) and analysis of any potential system-wide implications associated with its implementation.
Communication plan	Description of any internal or external communication plans specific to the option (where relevant). Explanation of how any potential reaction could be managed.
Preparatory measures	Overview of preparatory measures that could be taken for the successful implementation of the option, including specific follow-up actions.

Source: Based on compilation of best practices adopted by several SAs.

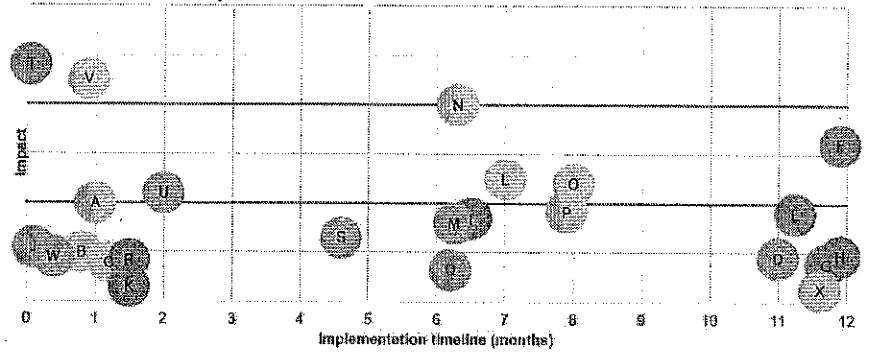
2| Lessons from recovery planning Selection criteria for recovery options

Example of how to present the selection criteria for recovery options



- low complexity
- medium complexity
- high complexity

Recovery options: summary of the individual assessment



Source: Based on compilation of best practices adopted by several SIs.
Notes: All data are fictitious. The x-axis depicts the time needed to implement an option (in months), while the y-axis depicts the impact of each recovery option (ranging from low to high). Circles labelled A to V indicate different recovery options.

2| Lessons from recovery planning Recovery option – impact analysis

Example of how to present an overview of the impact of each recovery option



Impact on capital, liquidity and RWAs; implementation timeline; impact on profitability and business model

- High / fast / low
- Medium / medium / neutral
- Low / slow / significant

Option	Capital		Liquidity (EUR millions)		RWAs (EUR millions)		Impact on profitability	Impact on business model	Implementation timeline (days)		Owner (function)
	Min. (EUR millions/ basis points)	Max. (EUR millions/ basis points)	Min.	Max.	Min.	Max.			Prep.	Effects	
A	100	150	1,000	2,000	n.a.	n.a.	Low	Low			Treasury
B		100	400	420	n.a.	n.a.	Neutral	Neutral	60	10	Treasury

2| Lessons from recovery planning

Recovery option – feasibility analysis

Example of how to present the feasibility of recovery options



Impediments / feasibility

- Low / high
- Medium / medium
- High / low

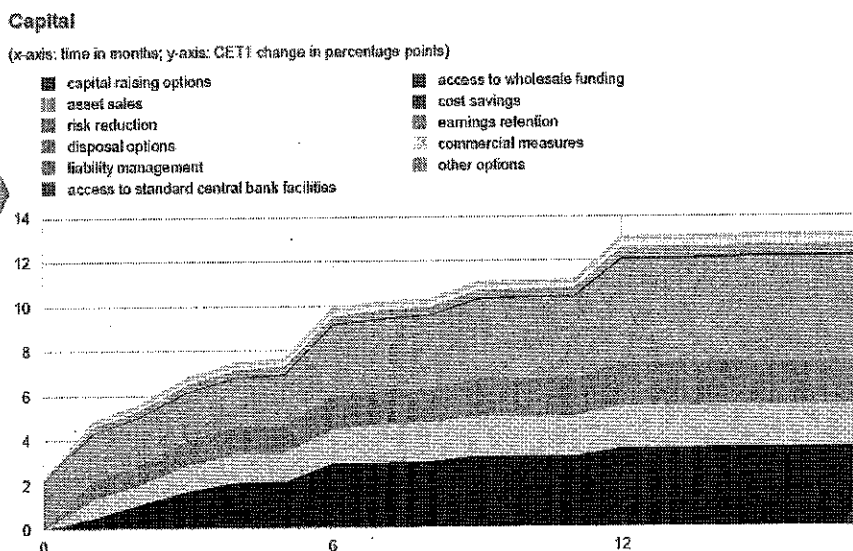
Option	Experiences	Possible impediments/risk factors					Implementation timeline	Feasibility
		Legal	Operational	Financial	Reputational	Business group structure		
A	Yes	Medium	Low	Low	Medium	Low	immediate	Low
B	Yes	Low	Low	Medium	Medium	Low	immediate	Medium
C	Yes	Low	Low	Low	Low	Low	immediate	High
D	Yes	Low	Low	Low	Low	Low	1-2 months	Low
E	Yes	Medium	Low	Low	Medium	Low	1-2 months	Low
F	Yes	Low	Low	Low	Medium	Medium	2-3 months	Low

Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 19

Quelle: ECS (2016): Report on recovery plans, Juli 2018.

2| Lessons from recovery planning

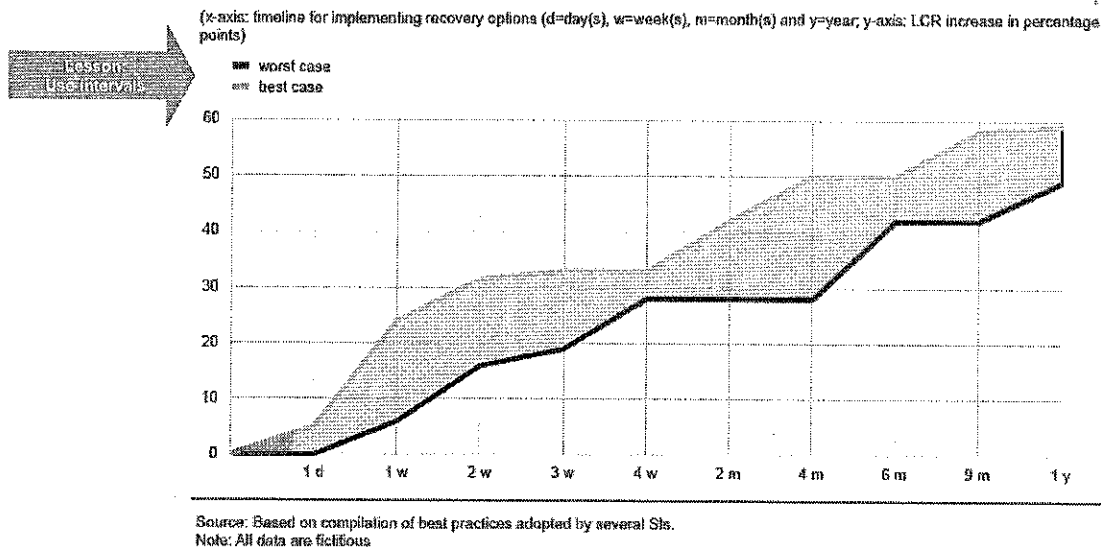
Presentation of „Overall Recovery Capacity“



Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 20

Quelle: ECS (2016): Report on recovery plans, Juli 2018.

2| Lessons from recovery planning Presentation of „Overall Recovery Capacity“

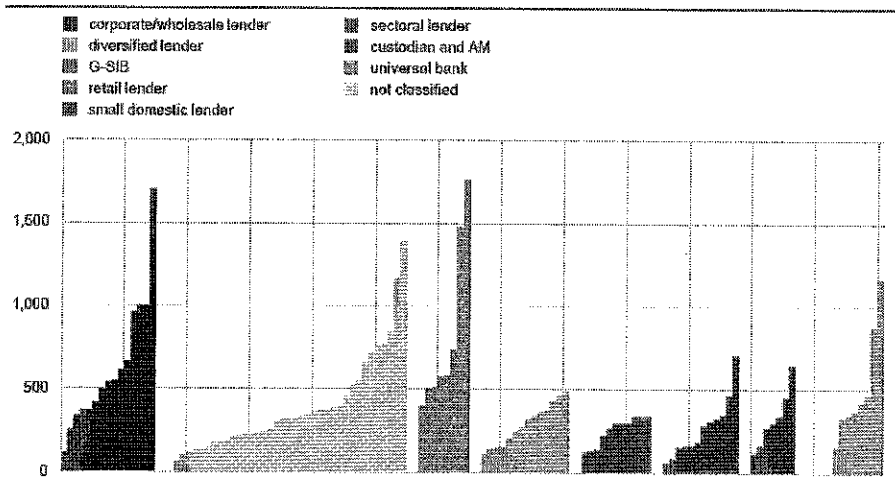


Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 21

Quelle: ECB (2018): Report on recovery plans, Juli 2018.

2| Lessons from recovery planning Challenge – scope and practicability of recovery plans

Benchmarking analysis – size of recovery plans (in number of pages)



Source: Based on recovery plan data from the standardised reporting templates submitted by SIs in 2016.

Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 22

Quelle: ECB (2018): Report on recovery plans, Juli 2018.

Agenda

1| Introduction

2| Lessons from recovery planning

References

Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 23

References

Deutsche Bundesbank (2014): Europe's new recovery and resolution regime for credit institutions;
Monthly Report, June 2014

https://www.bundesbank.de/Redaktion/EN/Downloads/Publications/Monthly_Report_Articles/2014/2014_06_recovery_resolution_regime.pdf?blob=publicationFile

Financial Stability Board:

<http://www.fsb.org/what-we-do/policy-development/effective-resolution-regimes-and-policies/>

European Banking Authority (EBA):

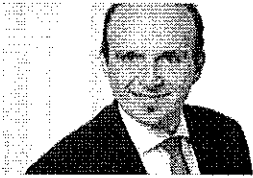
<https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution>

Single Resolution Board (SRB):

<https://srb.europa.eu/>

Prof. Dr. Andreas Igl, University of Applied Sciences of the Deutsche Bundesbank
December 2019
Page 24

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