

行政院及所屬各機關出國報告  
(出國類別：會議)

中央存款保險公司與匈牙利存款保險機  
構辦理展延合作備忘錄暨合作交流會議  
出國報告

服務機關：中央存款保險公司

姓名職稱：董事長雷仲達

副總經理蘇財源

國際關係暨研究室

主任范以端

科長顏秀青

出國地區：匈牙利

出國期間：民國 106 年 6 月 3 日至 6 月 8 日

報告日期：民國 106 年 8 月 23 日



列印

匯出

提要表

系統識別號：	C10602245					
相關專案：	無					
計畫名稱：	與匈牙利存保機構(NDIF)展期合作備忘錄(MOU)及進行合作交流會議					
報告名稱：	中央存款保險公司與匈牙利存款保險機構辦理展延合作備忘錄暨合作交流會議出國報告					
計畫主辦機關：	中央存款保險股份有限公司					
出國人員：	姓名	服務機關	服務單位	職稱	官職等	E-MAIL 信箱
	雷仲達	中央存款保險股份有限公司		董事長		
	蘇財源	中央存款保險股份有限公司		副總經理		
	范以端	中央存款保險股份有限公司		主任		
	顏秀青	中央存款保險股份有限公司		科長		聯絡人c431@cdic.gov.tw
前往地區：	匈牙利					
參訪機關：	匈牙利存款保險機構					
出國類別：	其他					
實際使用經費：	年度	經費種類	來源機關	金額		
	106年度	本機關	中央存款保險股份有限公司	512,766元		
出國計畫預算：	年度	經費種類	來源機關	金額		
	106年度	本機關	中央存款保險股份有限公司	512,766元		
出國期間：	民國106年06月03日 至 民國106年06月08日					
報告日期：	民國106年08月23日					
關鍵詞：	匈牙利，存款保險					
報告書頁數：	12頁					
報告內容摘要：	中央存款保險公司董事長雷仲達於106年6月初率團前往匈牙利布達佩斯，與匈牙利存款保險機構(National Deposit Insurance Fund of Hungary, NDIF)執行長Dr. András Fekete-Györ代表雙方機構確認展延合作備忘錄(Memorandum of Understanding, MOU)，延續正式合作關係，期間並進行合作交流會議，雙方代表就兩國存保制度最新發展及未來挑戰等議題進行意見分享與交流，並進行專題簡報。					
報告建議事項：	建議事項			狀態	說明	
	持續定期進行MOU會議有利強化國際關係與經驗交流			已採行		
	金融無國界已成趨勢，宜持續強化國際合作並積極洽簽合作備忘錄，以利存保制度之發展與金融安定			已採行		
持續進行賠付作業測試或模擬演練，有助提升賠付作業之正確性、效率性及順暢性。			已採行			

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限閱與否：	否
專責人員姓名：	
專責人員電話：	

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## 摘 要

一、出國期間：民國 106 年 6 月 3 日至 6 月 8 日。

二、地點：匈牙利。

三、行程摘述：

中央存款保險公司(以下簡稱存保公司)董事長雷仲達於 106 年 6 月初率團前往匈牙利布達佩斯，與匈牙利存款保險機構(National Deposit Insurance Fund of Hungary, NDIF)執行長 Dr. András Fekete-Györ 代表雙方機構確認展延合作備忘錄(Memorandum of Understanding, MOU)，延續正式合作關係，期間並進行合作交流會議，雙方代表就兩國存保制度最新發展及未來挑戰等議題進行意見分享與交流，並進行專題簡報。

四、心得與建議

- (一) 持續定期進行 MOU 會議有利強化國際關係與經驗交流。
- (二) 金融無國界已成趨勢，宜持續強化國際合作並積極洽簽合作備忘錄，以利存保制度之發展與金融安定。
- (三) 持續進行賠付作業測試或模擬演練，有助提升賠付作業之正確性、效率性及順暢性。



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## 壹、序言

中央存款保險公司(以下簡稱存保公司)自 2002 年起加入國際存款保險機構協會(International Association of Deposit Insurers, IADI)成為其創始會員後，積極參與該協會相關活動暨各項國際準則之研究與制定，並擔任 IADI 執行理事會理事、核心原則與研究委員會主席及研究與準則技術委員會主席等職務，透過積極參與國際組織會議及活動等方式，提昇我國國際能見度與專業度，並期使我國存款保險制度發展得與國際機制接軌。另存保公司持續透過 IADI 平台，已與加拿大、韓國、日本、匈牙利、馬來西亞、法國、德國等國家或地區 18 個同業及金融安全網成員簽署合作備忘錄(Memorandum of Understanding, MOU)或交流意向書(Letter of Exchange)，透過跨國資訊與人員交流、提供專業技能，以及在處理問題機構相關事項進行合作等，強化國際實質面金融合作與交流，有利促進我國金融安定。

存保公司與匈牙利存款保險機構(National Deposit Insurance Fund of Hungary, NDIF)為促進雙方經驗與資訊交流，前於 2005 年 6 月於匈牙利首都布達佩斯完成 MOU 之簽署，正式建立雙邊合作關係，為存保公司於歐洲第一個正式的 MOU 夥伴。是項合作備忘錄嗣於 2008 年、2011 年及 2014 年續約，2017 年為第四度續約。為賡續強化與匈牙利存款保險機構之友好合作關係，董事長雷仲達於率團參加國際存款保險機構協會(International Association of Deposit Insurers, IADI)在瑞士巴塞爾舉辦之第 52 屆執行理事會等各項會議後，赴匈牙利布達佩斯，與該機構執行長 Dr. András Fekete-Györ 於 2017 年 6 月 6 日分別代表雙方機構正式確認延續合作關係。

本次除與匈牙利存款保險機構確認展延 MOU 外，另召開合作交流會議，雙方代表就兩國存保制度最新發展及未來挑戰等議題進行意見分享與交流，我方代表簡報我國風險差別費率制度實施經驗；匈牙利代表就賠付作業壓力測試及風險基礎費率進行簡報。雙方除分享過去三年之交流成果，另進一步加強未來合作之願景。未來雙方將持續透過資訊與人員交流等方式密切合作，期使兩國存款保

險制度更加精進完善。

## **貳、與匈牙利存保機構進行展延合作備忘錄會議重點**

此次會議內容共分三部分，茲說明如后：

### **一、雙方機構首長致辭**

匈牙利存保機構執行長 Dr. András Fekete-Györ 首先致歡迎辭，他表示雖然二國距離遙遠，惟匈牙利存保機構與存保公司雙方的緊密合作交流均未受距離影響，期望雙方能藉由展延合作備忘錄讓合作關係更永續發展。存保公司雷董事長則表示雙方同為 IADI 之創始會員，藉由 IADI 之平台，雙方得以共同參與多項研究及 IADI 事務，在 2005 年 6 月正式簽署合作備忘錄後，雙方合作交流益形密切，此次展延合作備忘錄也代表雙方的友好關係又邁入另一重要里程碑。

### **二、雙方存保制度最新發展及未來挑戰**

會議中雙方就兩國存保制度最新發展及未來挑戰等議題進行意見分享與交流，我方代表簡報我國風險差別費率制度實施經驗(詳附錄 1)；匈牙利代表簡報賠付作業壓力測試及風險基礎費率(詳附錄 2)。以下簡述匈牙利存保制度及簡報重點：

#### **(一) 匈牙利存保制度簡介**

匈牙利於 1993 年 7 月依據銀行法第 24 號法案，建立存款保險制度，並設立匈牙利存保機構，最高決策單位為董事會。每一存款人於同一要保機構受保障之最高金額(包括本金及利息)為十萬歐元，賠付時以匈牙利弗林支付。受保障之存款包括儲蓄存款、支票存款、定期存款、外幣存款及 2003 年 1 月以後銀行所發行之金融債券及存單。

#### **(二) 風險差別費率**

依據歐盟第 2014/49/EU 號指令第 13(3)條，歐盟會員國須採行風險差別費率，匈牙利存保機構於 2016 年 6 月 1 日實施新的風險保費機制，該機制包含四種風險類別，用以決定保費水準及基本保費(75%、100%、125%、150%)。茲將該機制簡介如下：

### 1. 風險差別費率之實施

- (1)要保機構依其自身風險水準繳交保費。
- (2)實施風險差別費率制度後之保費收入，與原預算編列保費收入相較，差異不大。
- (3)可逐步實施。
- (4)已頒布之法規有規範詳盡的費率計算方法。
- (5)各項指標可自定期監理報告之資料中計算取得。
- (6)截至目前為止，尚無須要求要保機構提供額外資料以供計算費率使用。
- (7)費率計算結果為機密資訊；費率計算方法則為公開資訊。

### 2. 計算模型

- (1)計算模型十分敏感，因此計算結果變動相對快。
- (2)存款分布情形呈現對數常態分配(lognormal)。
  - i.中型或大型銀行對於保費收入有重大影響。
  - ii.分配的波動性可透過最低保費(Minimum Contribution)及調整係數(Adjustment Coefficient)緩和。
  - iii.鑑於計算模型較為複雜，故匈牙利存保機構的費率計算係以定期監理報告資料為基礎。

### 3. 保費計算方式

總保費=最低保費(Minimum Contribution)+變動保費(Variable Contribution)

- 最低保費=保費費率\*保額內存款\*基本保費比例
- 變動保費=(保費費率\*保額內存款\*要保機構綜合風險權重\*調整係數)\*(1-基本保費比例)

### (三) 賠付制度

#### 1. 賠付前置準備作業

##### (1) 資料品質

資料品質及正確性是賠付作業能否順利的關鍵因素，定期對要保機構進行電子資料檢查有助提升資料品質。在問題金融機構停業前約 2-3 週開始進行檢核資料品質，俾利及早及迅速地修正資料，以改善資料品質。良好資料品質可減少存款人的投訴和申覆，亦可減少相關管理費用(郵費、電話費等)。當存保機構的員工人數有限時，每位員工的工作質量就愈顯重要，不要去做一些不必要的額外業務。要能經常性維護資料品質，因此保有定期的檢視很重要，匈牙利存保機構的目標就是每三年一定要檢查要保機構之存款人相關資料(Single Customer View, SCV)及執行法令規定之相關事宜。

##### (2) 賠付時效性

現行歐盟規定 20 個工作天完成賠付，2024 年要求縮減為 7 天內迅速賠付存款人，故如何儘快從資料庫中確定存款人名單中，並讓多數存款戶在 7 天內拿到賠付存款，係首要考量的課題。

##### (3) 完善的賠付系統

建置設計完善的賠付系統支援是相當重要的，以提升賠付品質，避免客訴抱怨。



#### (4)前置作業之保密

相關前置準備工作一定要保密，千萬不能讓即將面臨停業金融機構員工知情。為克服上開挑戰，得藉由定期的檢查，亦即經常去拜訪要保機構，員工就會習以為常，就不會在看到存保機構人員出現時產生懷疑，也會越習慣依存保機構的要求，提供資料供檢查。

#### (5)建立良好的溝通機制及賠付管道

賠付作業能否順暢，有 60%是取決於溝通機制是否運作良好；有 40%則是取決於賠付系統及作業背景。溝通機制實為賠付作業成功最重要的關鍵。依照過往經驗，財經媒體很希望知道匈牙利存保機構到底有無足夠資金支應賠付款，存款人也希望知道同樣的訊息，有時金融界也會陷入恐慌。最有效的方式就是透過當地媒體或社群網站傳達訊息，當然也可使用全國性媒體，但有時首都以外地區之當地居民可能不會閱讀全國性報紙，只會閱讀當地報紙。

匈牙利存保機構有三種賠付方式，第一種是賠付提款卡，在停業前準備階段，匈牙利存保機構會先清點庫存的空白賠付提款卡數量(通常匈牙利存保機構會保存 5000 張)，並預估需要的量，不足時再跟廠商訂購。另外二種賠付方式是透過賠付代理銀行及其他管道賠付。

#### (6)流動性資金籌措安排及其他準備工作

如果賠付案件有流動性需求，需向中央銀行申請臨時流動資金融資，以減少負面新聞，並降低存款戶與要保機構間不必要的恐慌。依個案性質，必要時成立臨時性過渡融資。除了流動性資金籌措方式的規畫，停業前的準備工作尚包括是否需擴增客服中心、接電話員工人數，這些都需要事先估算及規畫，同時也要評估員工工作負荷量及後勤支援人力。

再者，需瞭解存款戶區域分佈情況，重點不是只看首都布達佩斯，如果有需要到較小或偏遠鄉鎮辦理賠付時，要提供足夠資訊及後勤支援。

## 2. 辦理停業機構賠付作業時之準備工作

### (1) 資料確認及修改

匈牙利存保機構不是主管機關，因此從收到主管機關通知辦理停業機構賠付作業時，匈牙利存保機構重要的一項任務就是確認資料正確性，首先請停業機構提供相關資料，並到現場實地檢查 SCV 檔案資料，將所有異常資料列出並據以修正，之後再把修正後檔案資料傳送給停業機構，並記錄銀行後續要採取的修正措施，停業機構整理修正後之檔案，匈牙利存保機構再將資料上傳至賠付系統，據以辦理賠付作業。

### (2) 預先計算個人存戶賠付金額。

### (3) 所有遺漏資料必須補填完整，否則暫停賠付

停業要保機構有很多資料欄位內容可能沒有填寫完成，造成資料不完整，匈牙利存保機構就會暫時停止存款帳戶之賠付程序。法規要求存款人之姓名、地址及身分證等欄位資料為必填欄位，有時存款人可提供其他輔助資料來證明身分，如娘家地址或護照號碼等，而公司戶也可以提供公司名稱及報稅統編等，只要檔案資料填寫不完整，賠付程序就會暫停。

### (4) 無法辨認之存款戶則先鎖住不賠付。

### (5) 依法要求暫停賠付的特殊存款

如同美國聯邦存款保險法(Federal Deposit Insurance Act)之規定，匈牙利法律規定的一些特殊存款，會先暫停賠付程序，如海外分行存款，到目前為止匈牙利存保機構無法辦理匈牙利境外存款賠付，只辦理國內存款賠付。

## (四) 賠付作業壓力測試計畫

匈牙利存保機構認為進行賠付作業壓力測試，有助瞭解金融安全網成員間權責分工之有效性，也可藉此提升存款保險機制的信譽，讓監理機關在危機時更有信心去採取適當因應措施，亦有助於讓存保機構之運作與其職員等

得以隨時準備就緒。在跨境賠付的情境中，能正確辨識存款人之相關資料是一項挑戰。賠付作業壓力測試情境也應搭配現行存款保險機制的風險模型所產出之實際評等。

1. 目標：賠付作業壓力測試依不同情境每年至少安排一次。

2. 測試順序及預估時程

(1)2017：與三個外國存保機構同業進行跨境支付檔案移轉。

(2)2018：存款保障機制(DGS)保費收入與處理成本間之差距。

(3)2019：大型銀行存款人之賠付，

(4)2020：多元賠付 (multiple compensation payments)。

(5)2021：中型信用機構存款人之賠付。

3. 定期檢視

董事會每年檢視未來存保機構進行賠付作業壓力測試的時程。所有壓力測試會涵蓋完整流程(從準備到實際賠付，包括危機溝通管理)，以模擬從收到主管機關通知辦理賠付開始到成功完成賠付 95%存款人的實際賠付情形，並持續檢視依歐盟指令規定 7 天內賠付的遵循程度。每次壓力測試期間不逾 10 天，測試後，向董事會提交白皮書，記錄完整評估過程及學習到的經驗與教訓，並適時提出改正建議。

4. 壓力測試組織架構

(1)外部觀察者(External Observers)

外部觀察者即為匈牙利存保機構的董事會成員，包括問題金融機構權責處理機構、監督機關、監理機關及儲蓄信用合作機構整合組織等代表。其職責在審閱並通過賠付作業壓力測試情境的腳本，客觀審查測試過程，瞭解內部程序、賠付流程與技術，以更加瞭解金融安全網成員間的連結性。

## (2)推動小組(Steering team)

推動小組成員包括風險經理(組長)、資訊(IT)部門稽核及內部稽核。選任原則是，相關但未實際參與賠付過程的員工，必要時，亦可包含外部服務廠商(IT 支援、客戶服務中心等)。

## 5. 壓力測試之執行

### (1)2017 年

匈牙利存保機構於 2017 年執行的賠付作業壓力測試包括：母國 2 處(斯洛伐克、捷克)；母國-地主國 2 處(德國、奧地利)及地主國 4 處(法國、愛爾蘭、荷蘭、葡萄牙)。

### (2)2018-2021 年間擇定賠付作業壓力測試機構

匈牙利存保機構刻正開發賠付作業壓力測試機構選擇模型(Stress Selection Model)，目標在偵測違約率高於平均的金融機構(以存款保障機制的觀點來看，央行壓力測試模型則側重資本比率及資產品質)。匈牙利存保機構的目標在結合央行壓力測試及存款保障機制風險差別模型。

## 6. 未來規畫

### (1)大型銀行之賠付

#### i.目標

進行賠付作業壓力測試以評估大量資料的管理能力，俾為賠付做準備。

#### ii.範疇

範疇包括測試籌資能力、溝通工具、客戶服務中心能力、賠付計算能力(伺服器超載)等。另依據受測金融機構之組織架構，測試外部服務廠商的反應及負擔極限。此情境亦包括賠付管道的最適測試。

### (2)多重(平行)賠付 (multiple/parallel compensation payments)

### i.目標

測試在人力資源有限之情形下，如何在短期內同時完成賠付多家倒閉金融機構。

### ii.範疇

測試同時進行若干小型或中型信用機構的存款人賠付，另依據受測金融機構之組織架構，測試外部服務廠商的反應及負擔極限。在此情境下，測試 7 個工作天內，如何完成檢核各小型或中型信用機構之 SCV 檔案資料，迅速地修正資料，並處理資料錯誤及相關行政事務等。

## 三、合作備忘錄展延確認

匈牙利存保機構執行長 Dr. András Fekete-Györ 與存保公司雷董事長共同發布展延合作備忘錄新聞稿(詳附錄 3，存保公司於其中、英文網站刊登之新聞稿詳附錄 4)。未來雙方仍將持續透過資訊與人員交流等方式密切合作，期使兩國存款保險制度更加精進完善。

## 參、心得

茲將本次出國心得臚列如后：

### 一、持續定期進行 MOU 會議有利強化國際關係與經驗交流

此行與匈牙利存保機構進行合作備忘錄續約會議，透過雙方機構首長就存保制度最新發展及未來挑戰等議題之討論，以及肯定近期合作交流活動之方式，已進一步強化雙方合作交流所奠定之基礎，對於未來持續透過資訊與人員交流及國際經驗分享，以提昇存款保險各項專業技術與機制設計，均頗具助益。

### 二、金融無國界已成趨勢，宜持續強化國際合作並積極洽簽合作備忘錄，以利存保制度之發展與金融安定

近年來之金融危機已充分顯示金融無國界之事實，各國政府已無法獨立於全球金融危機之外，故紛紛強化國際合作。為因應當前與未來金融環境變動之需，存保公司將積極配合政府金融改革政策，建構與國際接軌之存款保險與金融安定相關機制。未來存保公司將以 IADI 為交流平台，持續強化與會員機構間之合作並積極參與國際活動，促進與各國存款保險機構及金融安全網成員間之資訊分享與人員交流，另存保公司除將與現有之正式合作夥伴續簽合作備忘錄外，亦應積極與他國存款保險機構洽簽合作備忘錄，期透過各項實質之交流業務，強化國際合作，以利我國存保制度之發展與金融穩定。

### **三、持續進行賠付作業測試或模擬演練，有助提升賠付作業之正確性、效率性及順暢性**

存保公司開發之賠付及墊付系統，目前每年均擇 2-4 家金融機構辦理系統實地模擬測試，利用該等機構之電子資料檔案檢視系統處理之正確性、效率性及操作之順暢性，俾隨時進行系統之修正及調整，使系統功能更臻完善。並配合作業實務、法規修正及資訊科技演進，修正系統相關功能。該系統目前已就資訊安全及賠付金額正確性規劃多項安全控制點。為求精進，未來似可參考匈牙利存保機構之做法，持續進行測試情境或模擬演練，除檢視賠付資料之正確性外，亦測試賠付計算能力(伺服器超載)等，可藉此提升存款保險機制的信譽。



# Risk-based Premium System in Taiwan

*Fiona Yeh*

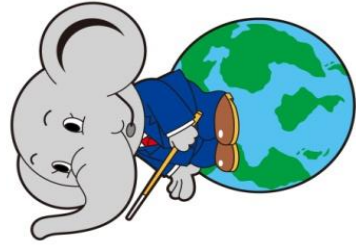
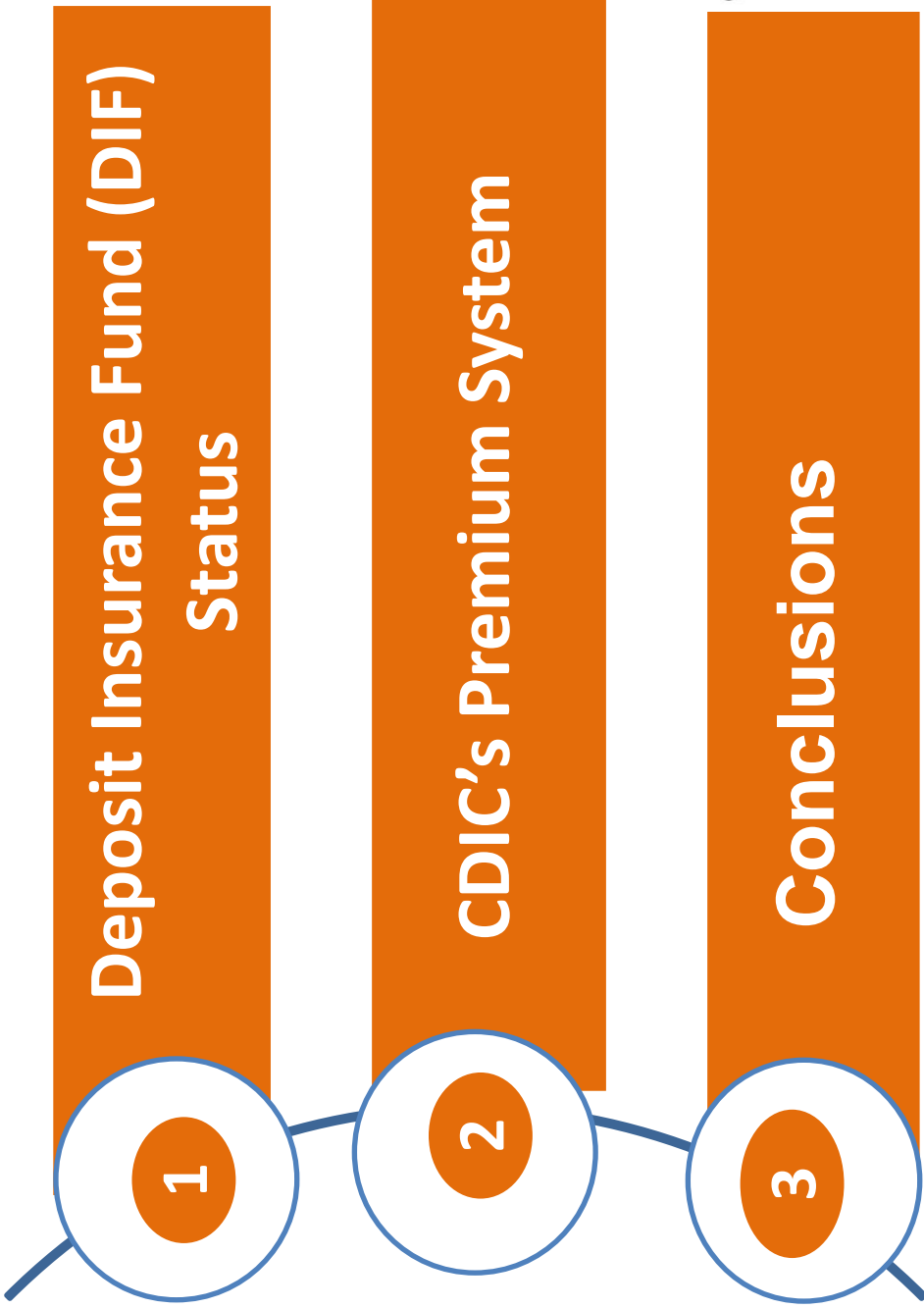
*International Relations and Research Office  
Central Deposit Insurance Corporation*

*June 6, 2017*





# Outlines







1

## Deposit Insurance Fund (DIF) Status



# Funding

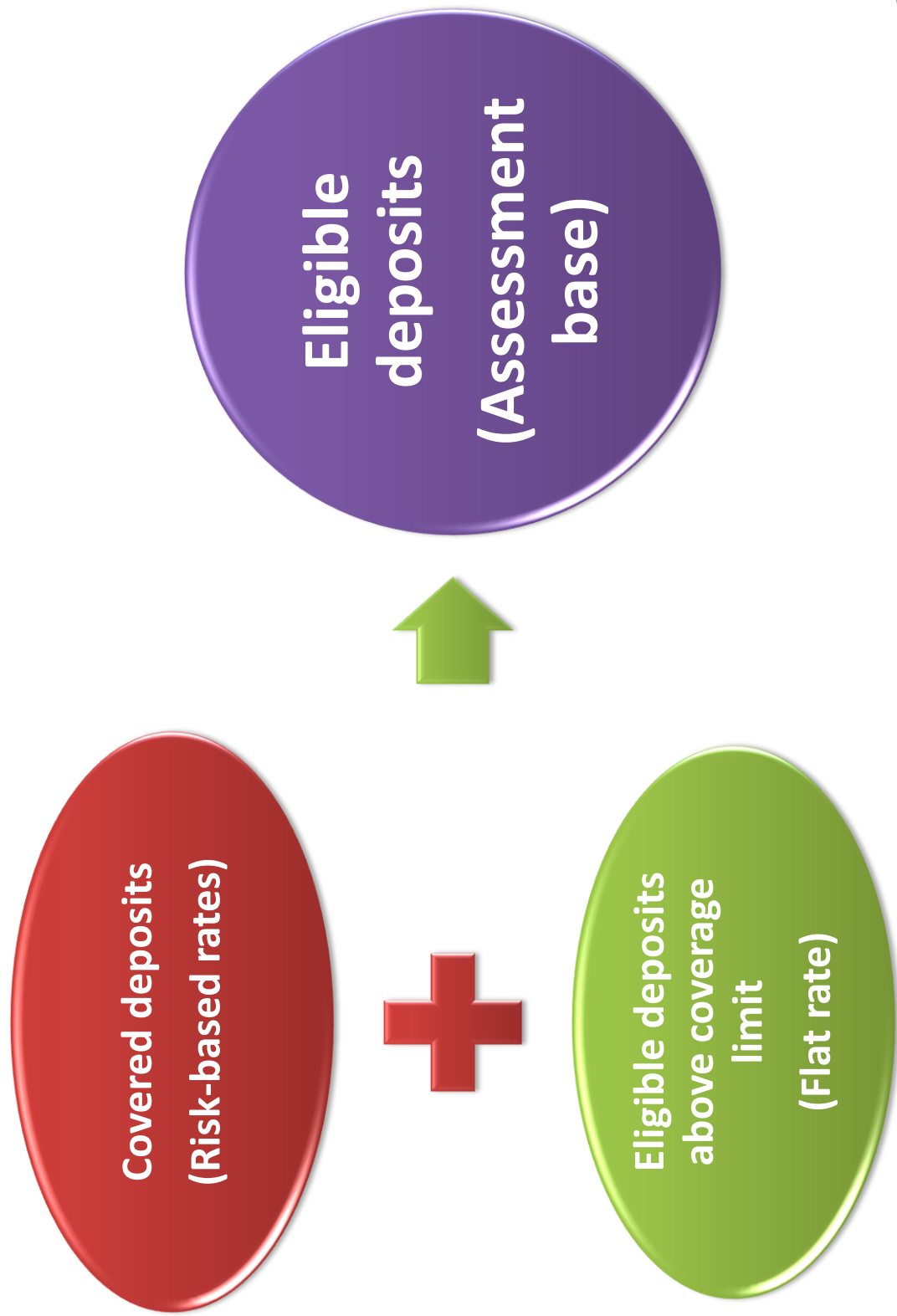
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## Ex-ante funding

- Risk-based premium system
- Premium rates approved by FSC
- Main funding source: regular premium



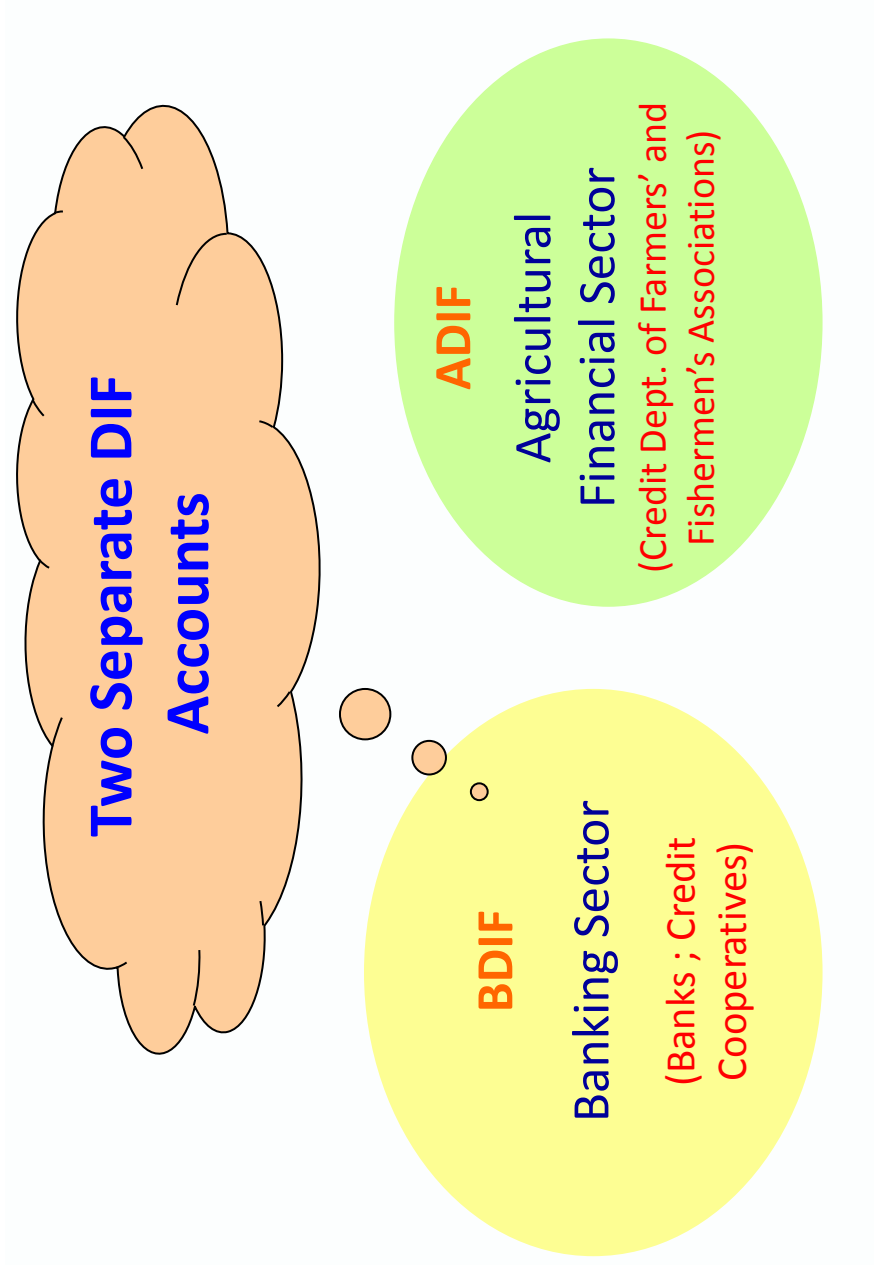
# Premium calculation





# Deposit Insurance Funds (DIF)

- ✓ DIF target ratio: 2% of covered deposits





# The DIF Status

Unit : NT\$/US\$ Billion

Year	30 April 2017	
Type	Banking Sector	Agricultural Financial Sector
Covered Deposits	19,917 (US\$664)	1,364 (US\$45)
DIF	69 (US\$2.3)	4.5 (US\$0.15)
Ratio of Each DIF to Covered Deposits(%)	0.35%	0.33%



2

## CDIC's Premium System

- Development of risk-based premium system
- Risk-based premium scheme

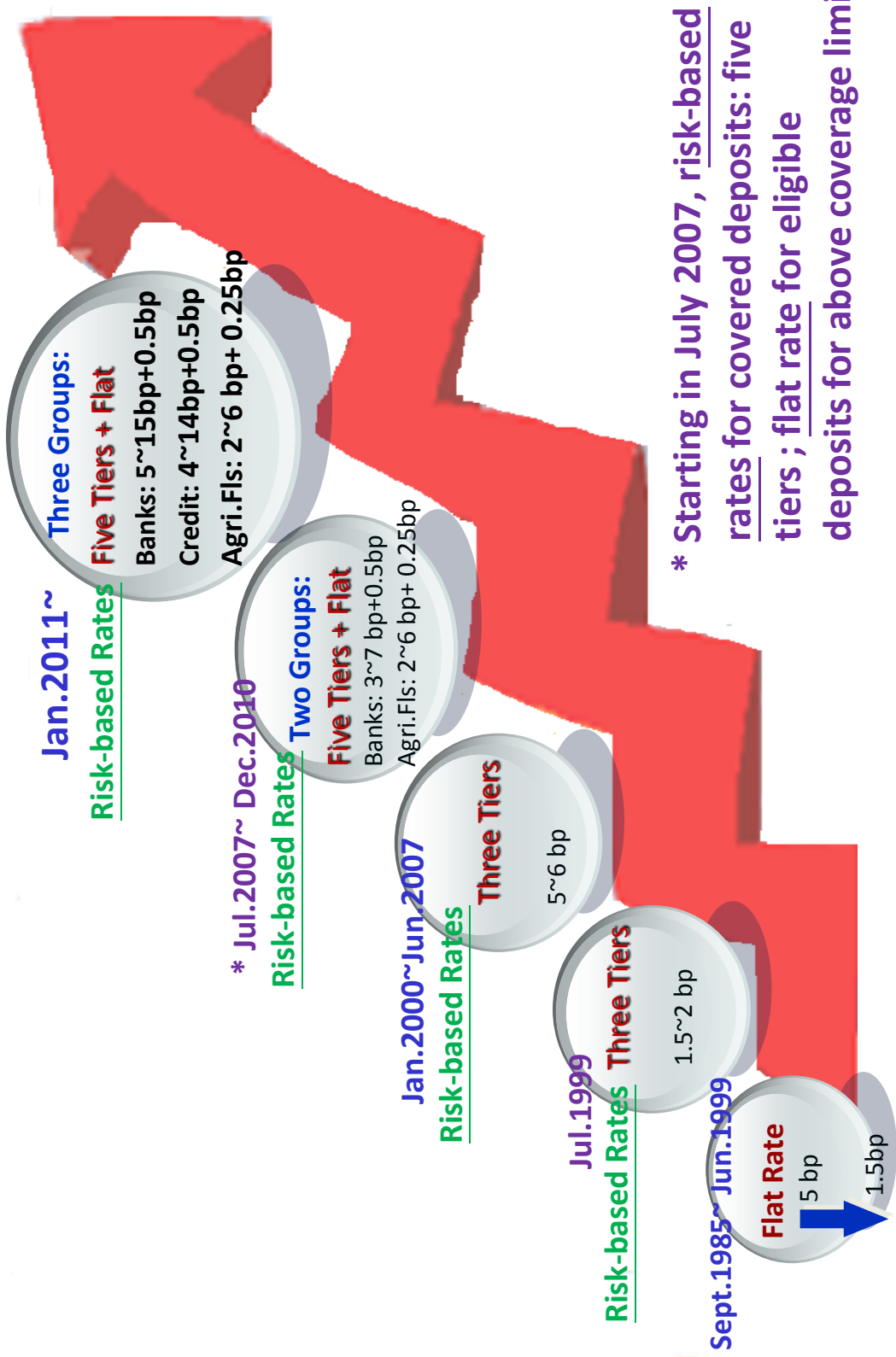


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# Development of Risk-based Premium System



# Adjustments of Premium System



\* Starting in July 2007, risk-based rates for covered deposits: five tiers ; flat rate for eligible deposits for above coverage limit





# Flat-Rate Premium System (Sep.1985~June 1999)

- ✓ Adoption of flat rate from the establishment of CDIC in 1985
- ✓ Assessment base : covered deposits

Time	Membership	Rate System	Premium Rate
Sep. 1985	Voluntary	Flat rate	5bp of covered deposits
Jul. 1987			4bp of covered deposits
Jan. 1988 ~ June 1999			1.5bp of covered deposits



# Risk-Based Premium System (July 1999~June 2007)

- ✓ Adoption of risk-based premium system since 1999
- ✓ Taiwan was the first Asian country to implement the system
- ✓ Assessment base : covered deposits

Time	Membership	Rate System	Premium Rate
Jul. 1999	Compulsory	Risk-based rate (9 groups/ 3 tiers)	1.5bp, 1.75bp, and 2bp of covered deposits
Jan. 2000 ~ June 2007			5bp, 5.5bp, and 6bp of covered deposits



# Risk-Based Premium System (July 2007~Dec.2010)

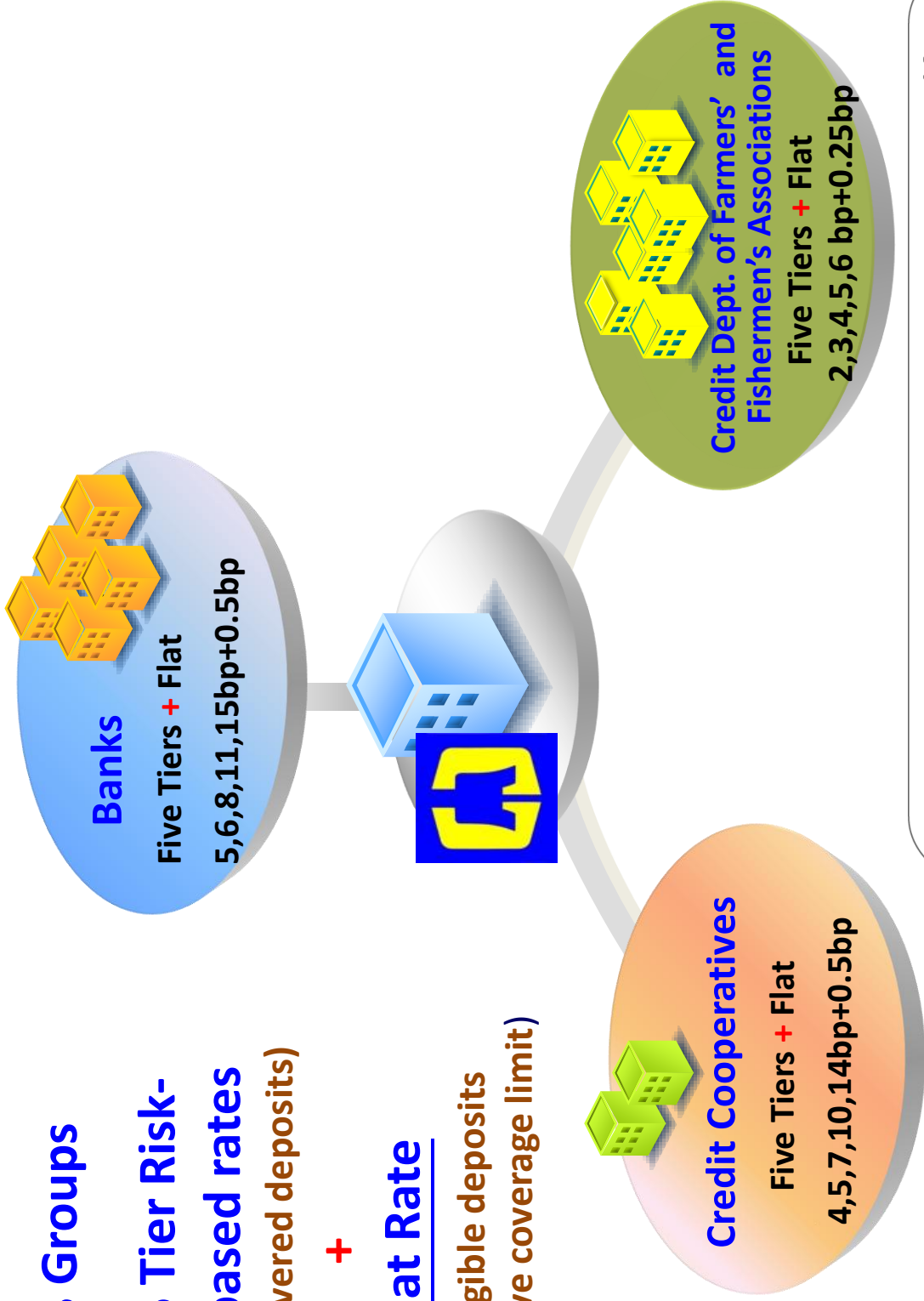
- ✓ Assessment base shifted from covered deposits to eligible deposits
- ✓ Increase of premium levels from 3 tiers to 5 tiers

Time	Membership	Rate System	Type of financial institutions	Risk-based rate	Premium Rate
Jul. 2007 ~ Dec. 2010	Compulsory application but subject to CDIC's review	<u>Risk-based rates of covered deposits</u> (9 groups/ 5 tiers)  <u>Flat rate of eligible deposits above coverage limit</u>	Banks, Credit Cooperatives  Credit Dept. of Farmers' and Fishermen's Associations	3bp, 4bp, 5bp, 6bp, 7bp  2bp, 3bp, 4bp, 5bp, 6bp	Flat rate  0.25bp (0.5bp after Jan. 2010)  0.25bp

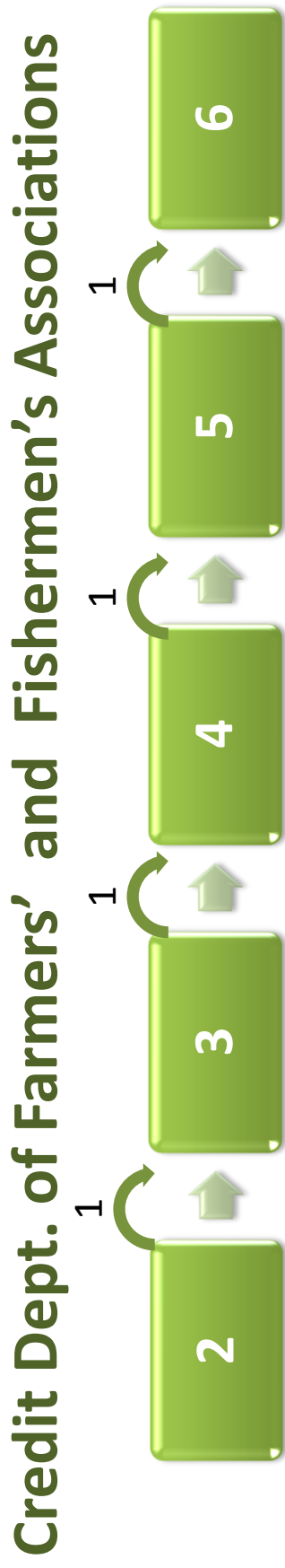
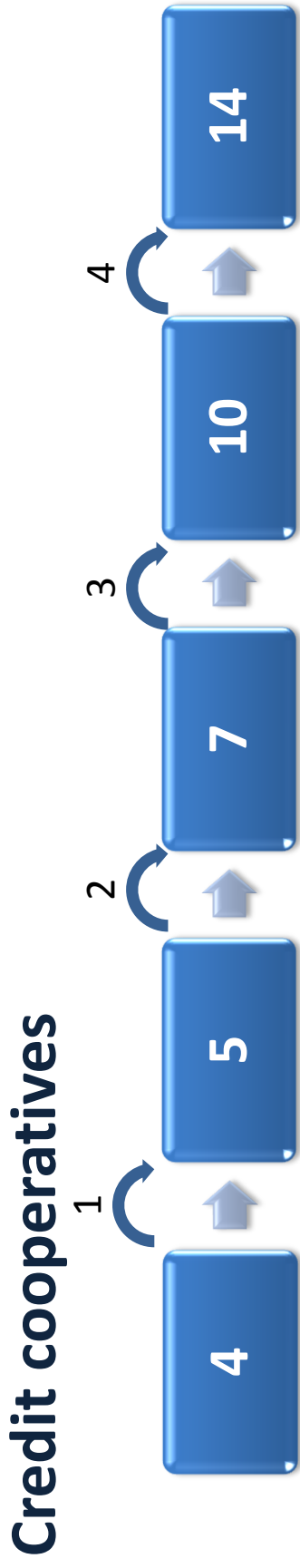
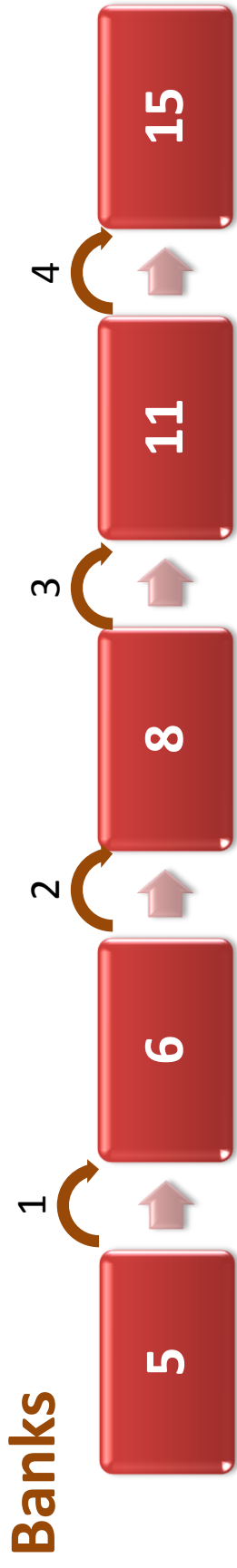


# Current Premium System (since 2011)

- ✓ 3 Groups
- ✓ 5 Tier Risk-based rates  
(covered deposits)
- +
- Flat Rate  
(eligible deposits above coverage limit)



# 5 Tier Risk-based Premium Rates (since 2011)





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# Risk-based Premium Scheme



# Why Adopting a Risk-based Premium System ?

To complement the implementation of compulsory deposit insurance system

To reasonably reflect the risk differentiation of member institutions

To guide member institutions to lower down their operational risk

To reduce moral hazard





# How was it Designed ?

## Determination of risk indicators

- Most accountable
- Least controversial
- Quantitative & objective

## Principle of calculation method

- Easy computation
- Not over burdensome for members

## Consideration of setting premium rate

- Affordable to members
- Speedy accumulation of DIF





# How was it Carried Out ?

Conducted research

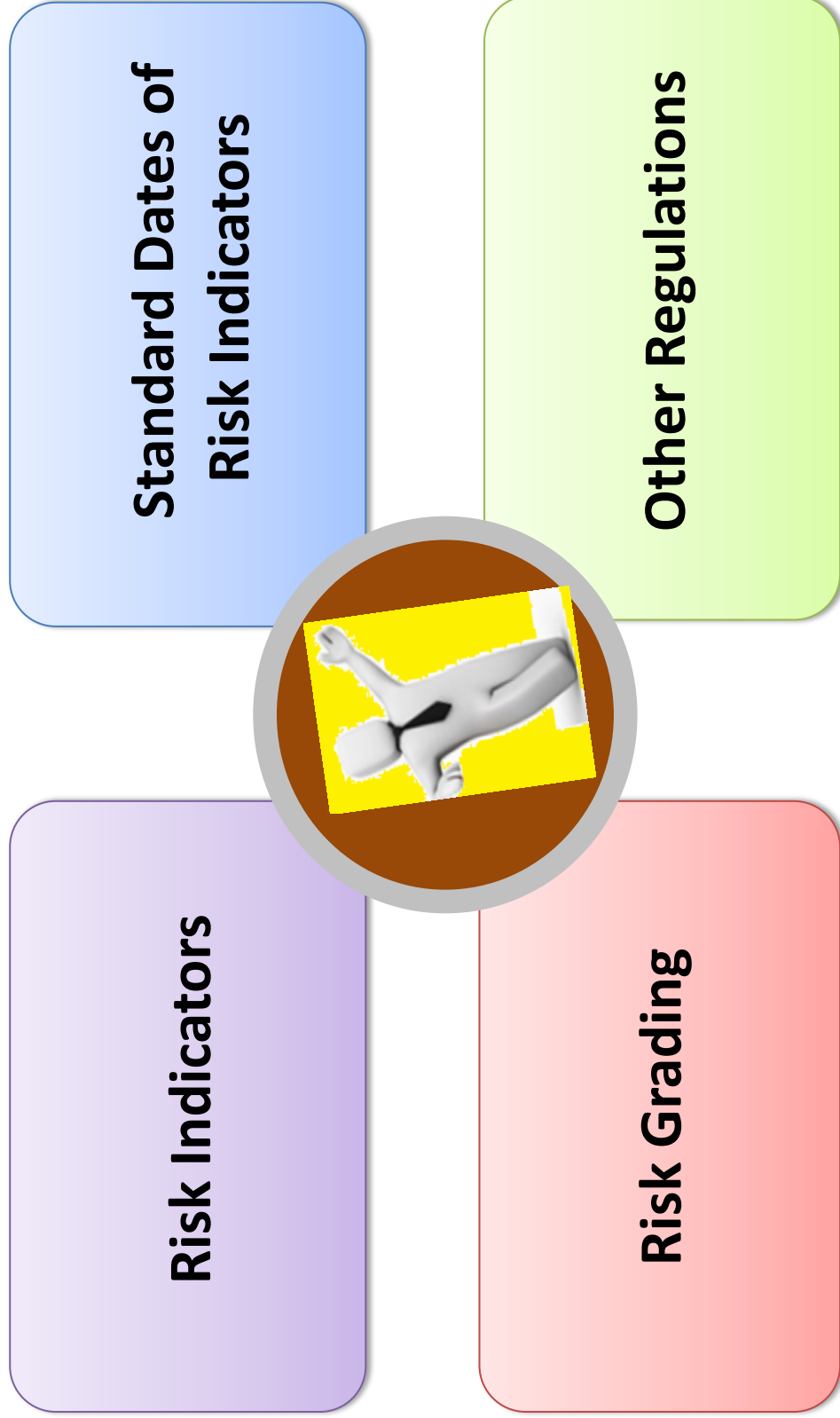
Discussed with professionals, academics and representatives of the banking industry

Held seminars and communicated with member institutions

Sent questionnaires to member institutions



# Risk-based Premium Scheme





# Risk Indicators

## Capital Adequacy Ratio (CAR)

- Affordability of risk
  - Objective
  - Highly recognized by financial institutions & supervisors worldwide
  - Leading members to enhance their capital

## Composite Score of the Risk-based Premium Rating System (CSRPRS)

- Exposure of risk
  - Objective
  - Incorporating CAMELS framework
  - Reflecting effectually overall operational risks



# Risk Grading (I)

✓ CAR is divided into three risk grades but three groups are applied to different CAR requirement respectively

- **CAR grades:**

	Banks	Credit Cooperatives	Credit Dept. of Farmers' and Fishermen's Associations
A	12.5% and over	12% and over	10% and over
B	9.25% to less than 12.5%	8% to less than 12%	8% to less than 10%
C	Less than 9.25%	Less than 8%	Less than 8%

- Subgroup B : Adequately Capitalized
- Subgroup C : Under Capitalized



# Risk Grading (II)

✓ CSRPRS is also divided into three grades

• **CSRPRS grades:**

	All member institutions
a	65 and over
b	50 to under 65
c	less than 50

- Subgroup a : Financially sound institutions with few minor weaknesses
- Subgroup b : Institutions with weaknesses which could result in significant deterioration and risk to CDIC
- Subgroup c : Institutions with substantial possibility of loss to CDIC unless effective corrective actions taken



# Risk-based Rates for Banks

- ✓ Nine risk groups (three-by-three matrix) & Five tier rates

CAR	CSRPRS		
	65 and over	50 to under 65	Less than 50
12.5% and over	First Tier Rate 5bp	Second Tier Rate 6bp	Third Tier Rate 8bp
9.25% to less than 12.5%	Second Tier Rate 6bp	Third Tier Rate 8bp	Fourth Tier Rate 11bp
Less than 9.25%	Third Tier Rate 8bp	Fourth Tier Rate 11bp	Fifth Tier Rate 15bp

Example : A bank with the CAR of 14% and CSRPRS of 70 is assigned to the first tier rate and assessed at the rate of 5bp.



# Risk-based Rates for Credit Cooperatives

CAR	CSRPRS		
	65 and over	50 to under 65	Less than 50
12% and over	First Tier Rate 4bp	Second Tier Rate 5bp	Third Tier Rate 7bp
8% to less than 12%	Second Tier Rate 5bp	Third Tier Rate 7bp	Fourth Tier Rate 10bp
Less than 8%	Third Tier Rate 7bp	Fourth Tier Rate 10bp	Fifth Tier Rate 14bp





# Risk-based Rates for Credit Dept. of Farmers' and Fishermen's Associations

CAR	CSRPRS		
	65 and over	50 to under 65	Less than 50
10% and over	First Tier Rate 2bp	Second Tier Rate 3bp	Third Tier Rate 4bp
8% to less than 10%	Second Tier Rate 3bp	Third Tier Rate 4bp	Fourth Tier Rate 5bp
Less than 8%	Third Tier Rate 4bp	Fourth Tier Rate 5bp	Fifth Tier Rate 6bp





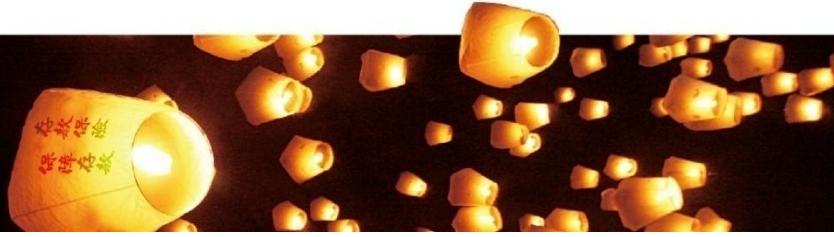
# Standard Dates of Risk Indicator

**Capital Adequacy Ratio  
(CAR)**

- Based on the most recent data submitted by members as of March 31 and Sep. 30

**Composite Score of the  
Risk-based Premium Rating  
System (CSRPRS)**

- Based on member's call report data as of March 31 and Sep. 30

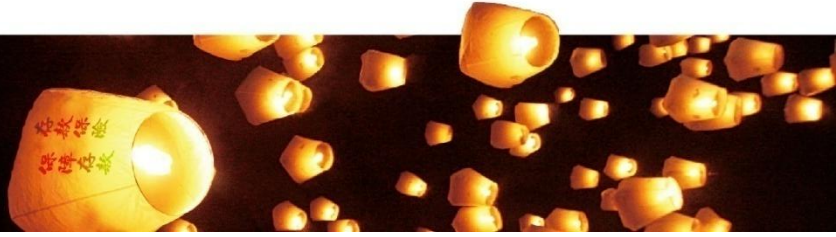


## Other Regulations (I)

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**Member's call reports with serious inaccuracies or omissions resulting in wrong rating and premium miscalculation, CDIC may :**

- Conduct on-site inspections
- Charge penalty of premium rates
- Report to the competent authority for punishment



## Other Regulations (II)

### Regulations of Penalty

- If a member institution publicly announces its composite score, CDIC may raise the risk-based premium rate **by 1bp**
- If a member institution does not pay its premium on time, CDIC may raise the risk-based premium rate **by 1bp**



# Other Regulations (III)

## ✓ Requests of Rate Review

- Term of accepting request

Before premium payment deadline (Jan. 31 & July 31)

- Forms of request

By written notice ; only one review per term

- Review unit

Premium Rate Review Committee



# 3

## Conclusions

- Lessons learned
- Future plans

## Lessons Learned

Quantitative model in accessing insured risk helps a lot in deciding risk-based premium

Widening tier rates and spreads in phases helps reduce resistance from banking industry

Enhancing communication and reaching consensus with stakeholders help smoothly implement new scheme

Raising premium rates during better economic and financial conditions is more feasible



# Future Plans

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1

To periodically review the assessment quantitative model will help assess premium rates associated with diversified insured risks

2

To review risk-based premium scheme in line with phases of financial development

3

To adjust premium rate at a more suitable time to achieve the 2% target ratio as soon as possible



**Thank you  
for your attention!**

**CDIC  
TAIWAN**





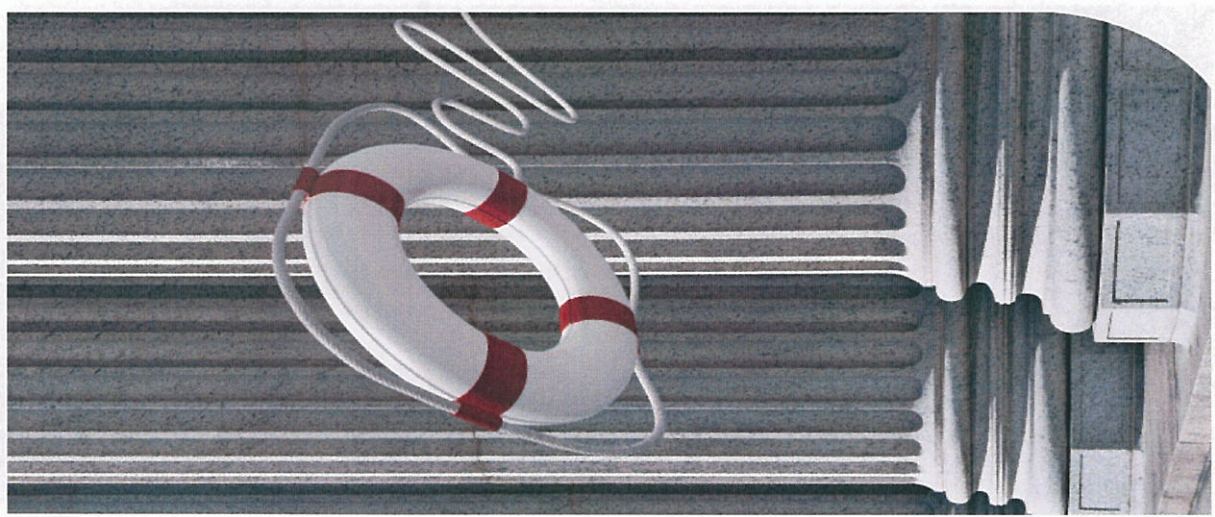


# Stress-testing and Risk-based Premium

(Outline of NDIF Risk Management Methodology)

**Balazs VAJAI**  
*Risk Manager*

**CDIC Working Visit & MoU Renewal**  
Budapest, 6<sup>th</sup> June 2017







## RISK PREMIUM

- Background: EU-wide DGSSs have to use the risk-based contribution as per Article 13(3) of the Directive 2014/49/EU
- The new contribution system was introduced as of 1 June 2016 (domestic issue with transposition)
- The system contains four risk categories, which determine the contribution level together with the basic fee (75%, 100%, 125%,150%)



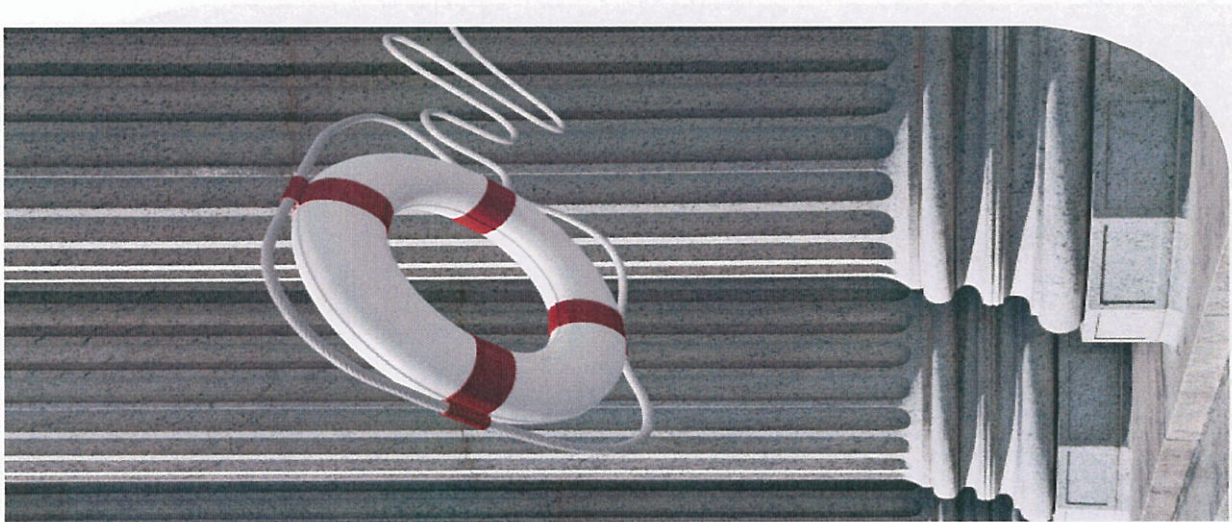


## RISK PREMIUM (2)

### Advantages:

- The credit institutions pay according to their risk level
- The system does not generate more or less revenue, then the budgeted one
- A gradual introduction is possible
- Regulations were issued, which contain a detailed calculation methodology
- Each indicator can be calculated from regular supervisory reporting
- No additional data has been requested for the calculation (so far).
- The result of the calculation is a confidential information.
- The calculation methodology is a public information





## RISK PREMIUM (3)

### Disadvantages:

- The model is sensitive, therefore the results are moving relatively fast
- The distribution of deposits is lognormal
  - medium or large banks can induce significant movements in their contributions
  - swings can be mitigated by the Minimum Contribution (MC) and also with the Adjustment Coefficient ( $\mu$ )
  - the model is rather complex, therefore the calculation made by NDIF is based on the regular supervisory reporting.





## Calculation of contribution

**Total Contribution (TC) = Minimum Contribution + Variable Contribution**

**Minimum Contribution (MC) = CR \* CD \* Base fee ratio**

**Variable Contribution (Cv) = (CR \* CD \* ARW \*  $\mu$ ) \* (1 - Base fee ratio)**

- Covered deposit (CD<sub>i</sub>):
- Contribution rate (CR):
- Adjustment Coefficient ( $\mu$ ):
- Aggregate risk weight for a member institution (ARW)



# ARS and ARW Calculation

Indicators	weight ratio (IW)	Value range	Risk point (IRS)
Capital	12%	≤ 0 - 6,5% <	100
		≤ 6,5% - 9,0% <	66
		≤ 9,0% - 15,0% <	33
		≤ 15,0% -	0
Liquidity	12%	- 100% <	100
		≤ 100% - 200% <	50
		≤ 200% -	0
Asset quality	24%	≤ 0 - 60% <	100
		≤ 60% - 100% <	50
		≤ 100% -	0
Business model and management	18%	≤ 0% - 10% <	0
		≤ 10% - 21% <	50
		≤ 21% -	100
Unencumbered assets / covered deposits	8,5%	≤ 0 - 20% <	0
		≤ 20% - 50% <	33
		≤ 50% - 60% <	66
		≤ 60% -	100
Unencumbered assets / covered deposits	8,5%	- - 3% <	100
		≤ - 3% - 2% <	50
		≤ 2% -	0
		≤ 0 - 150% <	100
Unencumbered assets / covered deposits	17%	≤ 150% - 400% <	50
		≤ 400% -	0

$$ARS_i = \sum_{j=1}^n IW_j \times IRS_j$$



ARS calculation from ARS	
Risk Class	Aggregate risk score (ARS)
1	≤ 0 - 30 <
2	≤ 30 - 50 <
3	≤ 50 - 61 <
4	≤ 61 -

ARW calculation from ARS	
Risk Class	Aggregate risk weight (ARW)
1	75%
2	100%
3	125%
4	150%



## Stress Test Planning



# Programming the test

<b>Goal</b>	Stress-test to be arranged at least once <b>every year</b> under various scenarios
<b>Test order&amp;timing</b>	<ul style="list-style-type: none"><li>➤ <b>2017:</b> Cross-border payment file transfer with three home partners</li><li>➤ <b>2018:</b> DGS Contribution to resolution (financial cap)</li><li>➤ <b>2019:</b> Large bank depositor payout</li><li>➤ <b>2020:</b> Multiple compensation payments</li><li>➤ <b>2021:</b> Medium-sized credit institution depositor payout</li></ul>
<b>Update</b>	Each year the Board will review the upcoming stress scenario for timeliness
<b>Scope</b>	<p>All stress-tests will <b>cover the complete process</b> (from preparations to actual payout, incl. crisis communication)</p> <ul style="list-style-type: none"><li>• to simulate a real payout starting with the first signal and finish with successful payments of at least 95% of total depositors</li><li>• to measure compliance with 7-day payout on an on-going basis</li></ul>
<b>Timeframe</b>	According to our script each stress-test will last <b>no longer than 10 days</b>
<b>White Paper</b>	After each test, the complete process evaluated and reported with lessons to the Board along w proposed corrective measures, if required.



# Stress-test Organization



## External Observers

Delegates from authorities (also represented in our Board):

- **Resolution Authority**
- **Supervisory Authority**
- **Regulator (MNE)**
- **Integration Body for the Savings Cooperative Credit Institutions**

## Role of Observers

- Joint agreement on the script for approved stress scenario, incl. Milestones
- Participate thru the whole process until completion
- Validate the correctness of stress process by their objectivity
- Get insight of the internal procedures, payout processes and skills, which may contribute to better understanding of interconnectedness of financial safety net players

## Steering Team

**Members:** *Risk Manager (leader), IT auditor, Internal auditor*

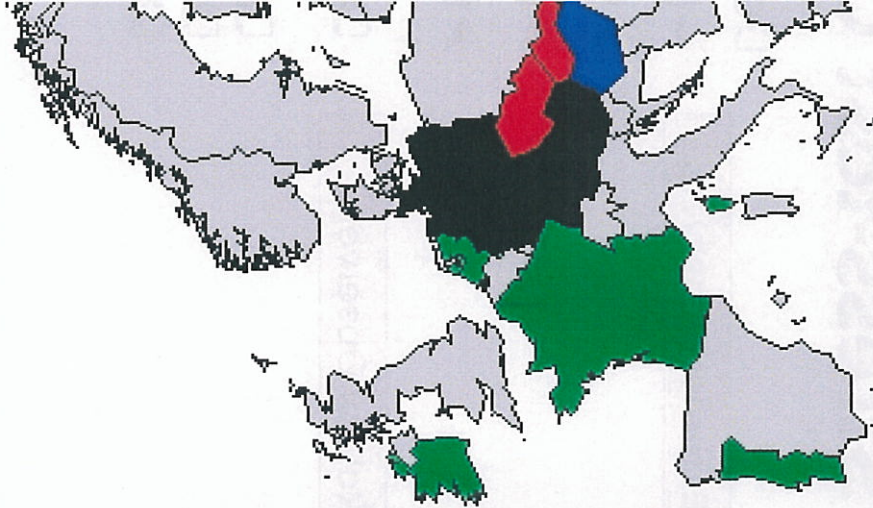
**Principle:** employees who are linked, but not physically taking part in the process → No curtailment of HR resources under stress!

**External service providers (IT support, Call-center, PAB, Post etc.)** could be included, if necessary (depending on scenario)



# Stress-test Implementation 2017

## NDIF'S Home - Host positions



**Hungary:**

**Blue**

**Home position only (2):**

**Slovakia, Czech Republic**

**Home-Host position (2):**

**Germany, Austria**

**Host position only (4):**

**France, Ireland, Netherland, Portugal**



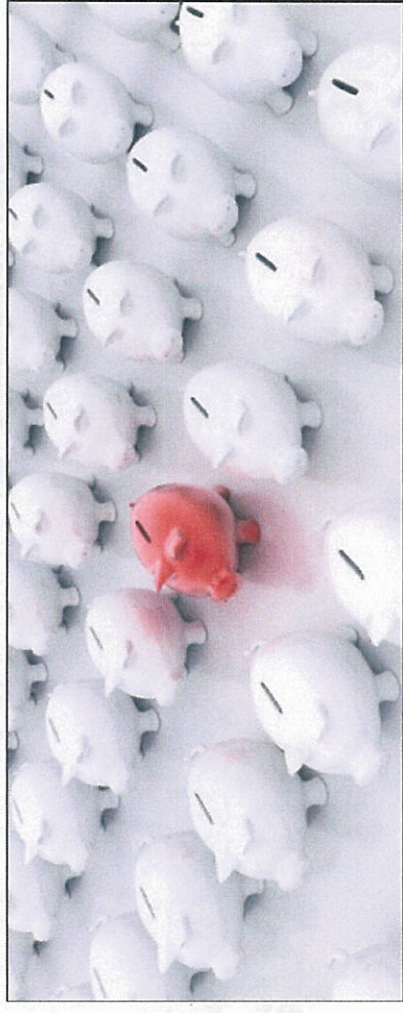
# Action Planning

Tasks	Timeline
1) Appointing the Steering Committee (SC) and head	<input checked="" type="checkbox"/> September 2016
2) Asking authorities to nominate observers	<input checked="" type="checkbox"/> September 2016
3) Checking the IT system for eventual modification	<input checked="" type="checkbox"/> September 2016
4) Notification of selected member banks and foreign counterparts	<input checked="" type="checkbox"/> October 2016
5) Updating crisis management manual	<input checked="" type="checkbox"/> October 2016
6) Preparations for the test (Orange Alert Protocol)	<input checked="" type="checkbox"/> November 2016 – May 2017
7) Supervisor's note on „license withdrawal” (Red Alert Protocol) Notification of HOST DGS	<input checked="" type="checkbox"/> 27 March 2017
8) SCV submission for the date of closure (separation of host branch depositors only)	<input checked="" type="checkbox"/> 31 March 2017
9) In the presence of external observers and SC members, the payout process began and finished	<input checked="" type="checkbox"/> 03 April 2017
10) Report on the results was sent to the EBA	<input checked="" type="checkbox"/> 23 May 2017



# Choosing „Stress” Institutions (2018 - 2021)

- Future *Stress Selection Model*/development is in progress at NDIF
- The aim is to find institutions having higher PD, than the average from DGS point of view. (The Central Bank's stress test model is focusing on capital ratios and asset quality)
- Our aim is to combine the Central Bank's stress test and DGS risk-based models
- Subject matter agreement : how big stress should we apply in the following fields
  - Interest rates
  - GDP
  - Inflation
  - Liquidity
  - etc...





# Stress-test Implementation Going Forward

## Large bank compensation

The aim:

- The test is designed to assess the ability to manage large volumes of data
- Preparation for a payout in the event of an aborted resloution attempt

The scope:

- Testing the funding capacity, communication tools, call-center capabilities, Payout SW and computing capacity (server overload).
- The external service providers should be tested both by their reactivity and load limits, based on the tested institution framework.
- This scenario also includes the optimization test for the payout channels in place

# Stress-test Implementation Going Forward



## Multiple (parallel) compensation payments

The aim:

- Testing how to manage short compensation period, while human resources are split will be addressed

The scope:

- Several small or even medium-sized credit institutions' parallel depositor compensation will be tested
- The external services providers should be tested both by their reactivity and load limits too, based on the tested institutions framework
- The 7-w.day payout deadline under such scenario is challenged by handling individual credit institutions' SCV data, which can not be handled in one database and each of them have to be monitored as a specific procedure; different type of erroneous data and logistics to be resolved

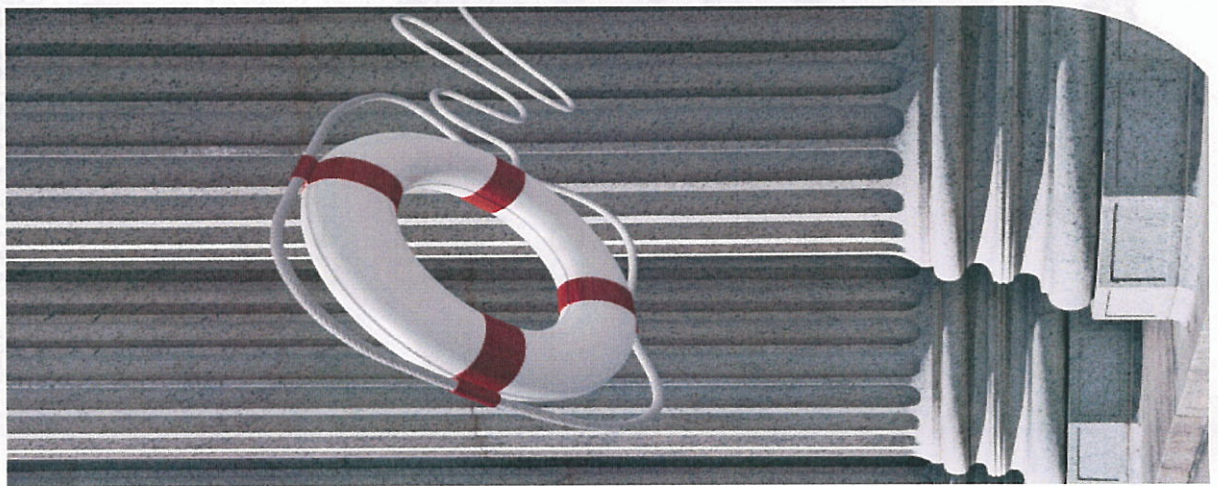


## Summing up



### Stress-testing from NDIF perspective

1. a helpful tool in *understanding* financial safety net context for all stakeholders
2. can elevate *reputation* of DGSS
3. brings supervisory *confidence* to take appropriate action in time of crisis
4. depositor identification can be a *challenge* in cross-border scenario
5. scenarios should incorporate the actual outcome (ratings) of prevailing *risk models* of DGSS
6. will help to maintain operational readiness and staff



# Thank You!





**Press release**

***For immediate release!***

**CONTINUING CROSS-CONTINENT DIALUGUE**

***(Budapest, 6th June 2017) Adaptable lessons learnt of the experiences of running risk-based premium system and conducting stress testing were also among the themes of negotiations when Central Deposit Insurance Corporation of Taiwan (CDIC) and the National Deposit Insurance Fund of Hungary (NDIF) today confirmed the renewal of their Memorandum of Understanding. In spite of the different regulatory environment, the almost a decade of professional dialogue resulted numerous valuable experiences for the two deposit insurance schemes which is worth to be continued.***

Formal inter-institutional cooperation of CDIC and NDIF started in 2005 when Memorandum of Understanding was first signed in Budapest. Leaders of the two founding members of the International Association of Deposit Insurers, now a global financial standard setter under the auspices of the Financial Stability Board today reviewed relevant topics of domestic and international banking and regulatory landscape, as well as the underlying challenges of deposit insurers.

Being a risk minimizer, CDIC has been working on upgrading its risk management mechanism, said Chairman Mr. Paul C.D. Lei of CDIC. CDIC modified its risk-based premium system by incorporating the most current risk indicators, including cybersecurity. It also continues enhancing its bank resolution mechanisms by planning to introduce Recovery and Resolution Planning and improving its payout system. Learning from NDIF's practical experiences is also valuable to CDIC. Mr. Lei confirmed that the MOU between the two organizations would help CDIC to advance the deposit insurance system in Taiwan.

Particular answers of national regulatory bodies for the challenging market environment, as well as the recently adopted EU Directive creates platforms for exchange of experiences globally. In this period, applicable methods and operational experiences of the CDIC's risk-based premium system provide valuable case to learn from for all those European deposit insurers facing with introducing a harmonized differential premium system, said Andras Fekete-Gyor Managing Director of NDIF.

Further information: TOTH, Istvan, spokesperson  
National Deposit Insurance Fund  
+36 30 491 2820  
[toth@oba.hu](mailto:toth@oba.hu)

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Chairman Mr. Paul C.D. Lei

.....  
Managing Director Fekete-Gyor Andras

## 中央存款保險公司與匈牙利存款保險機構合作備忘錄續約典禮會後新聞稿

更新日期：106-06-07



本公司與匈牙利國家存款保險機構(National Deposit Insurance Fund of Hungary, NDIF)為促進雙方經驗與資訊交流，前於民國94年6月完成合作備忘錄(Memorandum of Understanding, MOU)之簽署，為本公司於歐洲第一個正式MOU夥伴，其後每三年續約一次，本次為第四度續約。雙方同意持續加強跨國合作。本公司雷仲達董事長並赴匈牙利布達佩斯，與該機構執行長Dr. András Fekete-Györ於106年6月6日分別代表雙方機構正式確認延續雙方正式合作關係。

續約典禮前，雙方先進行合作交流會議，就兩國存保制度最新發展及未來挑戰等議題進行意見分享與交流，我方代表簡報我國風險差別費率制度實施經驗；匈牙利代表就壓力測試及風險基礎費率進行簡報。雙方除分享過去三年之交流成果，另進一步加強未來合作之願景，未來雙方將持續透過資訊與人員交流等方式密切合作，期使兩國存款保險制度更加精進完善。



本公司董事長雷仲達（左）與匈牙利國家存款保險機構執行長Dr. András Fekete-Györ（右）代表雙方機構正式確認延續MOU合作關係。



本公司董事長雷仲達(左)與匈牙利國家存款保險機構執行長Dr. András Fekete-Györ (右)合影。

列印

關閉

# CDIC Renewed the Memorandum of Understanding with NDIF Post-Ceremony Press Release

Update date : 2017-06-07



To promote bilateral exchanges of experiences and information, CDIC and the National Deposit Insurance Fund of Hungary (NDIF) signed a Memorandum of Understanding (MoU) in June 2005, and renewed the MoU every three years for three times afterwards. To continue enhancing cooperation from both sides, CDIC and NDIF agreed to renew the MoU in June 2017. CDIC's Chairman Dr. Paul C.D. Lei visited NDIF to confirm the renewal of the MoU with Dr. András Fekete-Györ, Managing Director of NDIF, on June 6, 2017, officially extending cooperative relationship from both sides.

Before the MOU's renewal, two organizations shared and exchanged the views on the recent development of respective deposit insurance systems and future challenges. CDIC made a presentation on the risk-based premium system. NDIF presented on the topics of stress-testing and risk-based premium. They also shared the cooperative activities during the term of the MOU from July 2014 to June 2017. In the future, CDIC and NDIF will continue to strengthen deposit insurance systems in respective countries through bilateral exchanges of information and personnel, the provision of professional expertise and the sharing of experiences, with a view to enhancing the deposit insurance systems.



CDIC Chairman Dr. Paul C.D. Lei (left) and NDIF Managing Director Dr. András Fekete-Györ (right) formally confirmed the renewal of the MOU between CDIC and NDIF.



Photo of CDIC Chairman Dr. Paul C.D. Lei (left) and NDIF Managing Director Dr. András Fekete-Györ (right).

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