



財團法人住宅地震保險基金 Taiwan Residential Earthquake Insurance Fund 台北市10059濟南路2段39號5樓 5F,No.39, Sec.2, Jinan Rd., Taipei 10059, Taiwan TEL:+886-2-2396-3000 FAX:+886-2-2392-3929 http://www.treif.org.tw

# Taiwan Residential Earthquake Insurance Fund 財團法人住宅地震保險基金



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#### 董事長的話

填補制度亦不可或缺。

台灣住宅地震保險制度,係政府有感於921大地震發生時,民眾 投保火災保險附加地震保險之比率甚低,僅約千分之二,自保險所能 獲得之保障有限,爰參考國外相關住宅地震保險制度並考量我國民情 而設計,除提供住宅火災保險的保障外,亦能提供民眾遭受地震災害 時獲得基本程度之保障,期使被保險人得以迅速重建家園。

住宅地震基本保險自91年4月開辦以來,業務即以穩定的速度 成長,截至97年上半年,有效保單件數超過196萬件,投保率已達 25.24%。本基金自95年7月1日獨立運作後,即擔負管理住宅地震保 險制度與危險分散機制的政策性任務。為因應大地震發生時支應賠款 所需,在資金運用方面,以安全性為首要考量,並兼顧流動性及收 益性。截至97年6月底止,本基金特別準備金之累積餘額已達新台幣 68.8億元,相較於去年同期成長約35%。

本基金係住宅地震保險制度之中樞組織,自六年前設立至今, 已逐步建構完成各項制度與營運模式。為使整體機制運作更加順暢與 完善,除持續檢討改進現行危險分散機制與承保、理賠運作方式外, 並結合各產險業者之力量,多方面進行教育宣導活動,以提升住宅火 災保險及住宅地震保險之投保率,加速地震保險基金資金之累積。未 來將加強與國內、外地震相關研究機構合作,使地震保險基金成為專 業且值得信賴的住宅地震風險管理機構,充分發揮地震保險基金之功 能。



地震發生的時間無法預測,其所可能造成之災害,更無法想 像。台灣地處環太平洋地震帶,面對地震災害的威脅,政府在規劃整 體社會的安全體系上,除了強化現有防災體系的效能外,災後的損害

#### 石燦明 董事長

## 財團法人住宅地震保險基金簡介 Taiwan Residential Earthquake Insurance Fund (TREIF)

台灣地處環太平洋地震帶,為全世界三大地震帶之一,地震係屬無預 警性的天然災害,不僅發生的時間無法預測,其所可能造成之損失更無法想 像。面對地震災害的威脅,風險管理概念的落實非常重要,平時即應加強地 震發生前的防範措施,重視各種場合的防震工作,地震發生後之緊急應變方 法更要構建並勤加演練。然而,防範措施做得再好也只能減少損失的發生, 無法消除地震風險,大規模的地震損失仍有可能發生,因此,有必要建立一 個地震後損害填補的保險制度,來強化整個社會的安全體系。





1999年9月21日發生於南投集集芮氏規模7.3的大地震(又稱921集集 地震),相信大家仍記憶猶新。921集集地震激起政府建立地震保險共保體 系、強化地震保險機制之共識,主管機關並劍及履及於1999年底提出「保險 法部份條文修正草案」,增訂保險法第一三八條之一,納入保險業應承保住 宅地震危險之規定,並兼及建立地震危險承擔機制。保險法修正條文於2001 年7月9日公布,我國政策性住宅地震保險制度的雛形乃於焉成形,主管機關 根據保險法第一三八條之一規定,於2001年11月30日頒訂「住宅地震保險共 保及危險承擔機制實施辦法」,其總責任承擔限額為新臺幣500億元(承擔 限額及層次如下圖)。



2002年4月1日起於住宅火災保險單下自動涵蓋住宅地震基本保險, 每戶保險金額最高新臺幣120萬元,全國採單一費率,每年每單保費新臺幣 1,459元,保障範圍為承保住宅因地震震動或地震所引起之火災、爆炸、山 崩、地層下陷、滑動、開裂、決口或地震引起之海嘯、海潮高漲、洪水等事 故導致之實際全損或推定全損(即建築物不堪居住必須拆除重建、或非經修 建不能居住且修復費用為重置成本50%以上者)。一旦承保之住宅經評定為 符合全損理賠標準時,承保公司除支付全損理賠金額外,另會同時支付臨時 住宿費用新臺幣18萬元。

主管機關復於2001年11月30日頒訂「財團法人住宅地震保險基金捐助 章程」及「財團法人住宅地震保險基金管理辦法」賦予財團法人住宅地震保 險基金(以下簡稱地震保險基金)之法令依據,並指示保險業務發展基金管 理委員會捐助新臺幣2,000萬元成立地震保險基金。

地震保險基金成立初期,係委由財政部所屬之中央再保險公司(以下簡 稱中再公司)兼營,設執行秘書一人、秘書若干人,均由中再公司派員兼任 以兼辦所有相關業務,各產物保險公司承保之住宅地震保險全部分予中再公 司,中再公司接受後再分予國內保險業、地震保險基金、國內外保險、再保 險業及政府等分層承擔,建構完成我國住宅地震保險危險承擔機制。

2005年12月1日主管機關修正發布「住宅地震保險共保及危險承擔機制 實施辦法」,將危險承擔機制由四層改為二層。第一層新台幣20億元,仍由 住宅地震保險共保組織承擔,超過新台幣20億元以上之480億元,由地震保 險基金承擔及分散。



- 險分散之方式包括: 保險市場或資本市場分散;
  - 次承擔;

新臺幣 600億元	<b>第二層(新臺幣</b> 財團法人住宅地震 承擔
新臺幣	<b>第一層(新臺幣</b>
24億元	住宅地震保險共保

配合保險法第一三八條之一於2007年7月18日之再次修正,「住宅地震 保險共保及危險承擔機制實施辦法」於2007年11月26日公布更名為「住宅地 震保險危險分散機制實施辦法」。自2008年起,各產物保險公司承保之住宅 地震保險業務須全部分予地震保險基金,地震保險基金接受所有危險後再予 承擔及分散,建構完成現行住宅地震保險營運模式。

2006年12月29日主管機關再修訂公布「住宅地震保險共保及危險承擔 機制實施辦法」,將住宅地震保險之危險承擔限額,自2007年起由新臺幣 500億元調高至新臺幣600億元。危險承擔機制各層限額調整如次:

第一層:新臺幣24億元風險部分,由住宅地震保險共保組織承擔。

第二層:新臺幣576億元風險部分,由地震保險基金承擔及分散。其危

(一)新臺幣176億元以下部分,由地震保險基金自行承擔;

(二)超過新臺幣176億元至新臺幣376億元部分,安排於國內、外再

(三)超過新臺幣376億元至新臺幣456億元部分,由地震保險基金再



(四)超過新臺幣456億元至新臺幣576億元部分,由政府承擔。

## 💮 二、地震保險基金為住宅地震保險制度之中樞組織

住宅地震基本保險係政策性保險,其中樞組織當由非營利機構擔任,方 能充分配合政策性使命。住宅地震保險實施初期,中再公司為住宅地震保險 制度之經理人,負責共保事務及國外再保安排,對本保險承保、理賠制度及 規範之建立殫精竭力,貢獻甚大,而再保安排亦慎加考選,力求安全無慮, 惟若國外再保險公司仍不幸發生失卻清償能力等問題時,其所無法攤回之再 保險損失應由何者來承擔,相關法規中並未明文訂定。為解決此一問題,主 管機關乃於2005年12月1日修正發布「住宅地震保險共保及危險承擔機制實 施辦法」,明定地震保險基金為住宅地震保險制度之中樞組織,並積極敦促 地震保險基金之獨立運作。

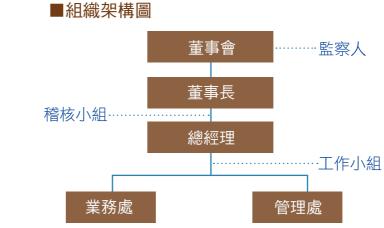
地震保險基金於2006年7月1日起脫離中再公司開始獨立運作,負責住 宅地震保險承保、理賠制度之建立與改善、共保業務之處理、再保險安排、 業務官導、地震保險基金之管理與理賠評估人員及專業技師等之訓練及講習 等事項。

由於地震保險基金亦為住宅地震保險責任之最終危險承擔者,在危險分 散機制第二層中,它除了承擔自留部份(新臺幣256億元)之風險外,尚需 承擔新臺幣200億元再保險部分之信用風險。2007年7月18日保險法第一三八 條之一條修正通過,明訂地震保險基金負責管理主管機關建立之危險分散機 鄶。



## 💮 三、地震保險基金組織架構

本基金係屬公益財團法人,無任何營利性質,於2002年1月17日正式設 立登記,成為繼日本及土耳其之後,亞洲第三個由國家主導而成立之政策性 住宅地震保險機構。



#### 董事會

董事會為本基金最高決策單位,董事長由董事互選產生,首任董事長由 財政部陳次長冲兼任,2002年7月改由財政部張常務次長秀蓮兼任,2005年 9月30日改聘金管會凌專門委員氤寶兼任,2008年4月15日改聘第三屆董事, 經董事互選後,由中華民國產物保險商業同業公會石理事長燦明兼任本基金 董事長。



#### 董事

董事會置董事十一人,均由主管機關自下列人員聘任:

- ●目的事業主管機關代表三人。
- 財政部國庫署代表一人。
- ●目的事業主管機關指定之專家學者四人。
- 本保險共保組織會員代表三人。

#### 監察人

本基金目前置監察人二人,由目的事業主管機關聘任,監督本基金之業 務及財務。

#### 稽核小組

本基金為健全業務發展、確保財務及管理資訊正確、完整,特制定「財 團法人住宅地震保險基金內部控制及稽核制度實施辦法」,設置稽核小組, 隸屬董事長,負責稽核各單位業務,並定期評估各單位自行查核辦理績效。

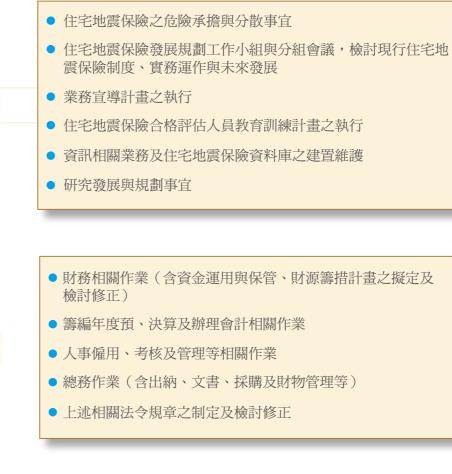


#### 住宅地震保險發展規劃工作小組

住宅地震保險為政策性保險,決策過程須周延縝密,本基金乃於2008年 3月成立住宅地震保險發展規劃工作小組,協助本基金制定相關決策。該工作 小組由本基金總經理擔任總召集人,工作小組委員由本基金延聘產、官、學 界之專家學者及本基金人員組成,為配合實務需要,另於工作小組下設有危 險分散與費率分組、承保理賠與法制分組及資訊與教育推廣分組三個工作分 組,日後將配合實際運作情形適時調整。

#### 部門職掌

本基金目前聘任張總經理萬里,綜理地震基金業務,其下設有業務處及 管理處兩部門,部門職掌如下:







#### 🖚 四、地震保險基金業務、財務狀況

#### ●業務處執掌

- 1. 辦理住宅地震保險之危險承擔(含承保傳輸、理賠與稽查)與分散事宜。
- 2. 辦理住宅地震保險發展規劃工作小組與分組會議,檢討現行住宅地震保險 制度、實務運作與未來發展。包括:
  - (1) 危險分散與費率分組:檢討與改善危險分散機制、保單條款與承保範 圍、費率、準備金等。
  - (2) 承保理賠與法制分組:研議承保與理賠作業相關議題、本保險相關辦 法、要點與保單條款等檢討修正。
  - (3) 資訊統計與教育推廣分組:檢討與建置本保險相關資訊系統、合格評 估人員教育訓練及各項業務宣導之執行與規劃。
- 3. 住宅地震保險業務宣導計畫之執行。
- 4. 住宅地震保險合格評估人員教育訓練計畫之執行。
- 5. 辦理資訊相關業務及住宅地震保險資料庫之建置維護。
- 6. 研究發展與規劃事宜。

#### ●管理處職堂

- 1. 財務相關作業(含資金運用與保管、財源籌措計畫之擬定及檢討修正)。
- 2. 籌編年度營運計畫、預算、決算及辦理會計相關作業。
- 3. 人事僱用、考核及管理等相關作業。
- 4. 總務作業(含出納、文書、採購及財物管理等)。
- 5. 上述相關法令規章之制定及檢討修正。

#### ■業務狀況

自2002年住宅地震保險開辦以來,住宅地震保險業務即以穩定的速度 成長,截至2007年底止,有效保單件數超過187萬件,以全國住宅總戶數760 萬戶計算,投保率為24.63%,2007年簽單保費收入亦超過新臺幣27億元,較 前一年成長12%。歷年來住宅地震保險簽單保費及成長率詳如下表。

#### 住宅地震保險簽單保費收入概況

#### 住宅地震保險簽單保費及成長率

年度	簽單係	費收入
+12	金額	成長率
2002(4月~12月)	661,231	-
2003	1,242,788	88%
2004	1,702,959	37%
2005	2,101,527	23%
2006	2,425,076	15%
2007	2,722,298	12%

#### 訂定住宅地震保險標準理賠作業處理程序

召集業界、產險公會、保發中心代表以及有關之專家學者,訂定住宅地 震保險標準理賠作業處理程序,編訂住宅地震保險標準理賠作業手冊,並邀 請產險業界相關人員、各縣市政府建管單位人員等進行住宅地震保險理賠標 準作業北部地區說明會。

# 單位:新臺幣仟元



#### 建置震災後早期損失評估系統

基於地震過後得以迅速掌握本保險初步損失情形,評估地震損失是否超 過危險分散機制總責任額,作為需否削額給付的參考。本基金委託財團法人 國家地震工程研究中心建置震災後早期損失評估系統,本系統結合本險保戶 資料庫,能於地震後三至五分鐘內自動計算出早期損失評估結果,以手機簡 訊方式傳送給相關人員,後續並能以修正後之地震發生參數進行手動損失評 估計算。

#### 建立異地備援機制

本基金為住宅地震保險制度之中樞組織,擁有全國完整之住宅地震保險 保單資料庫,為使住宅地震保險資訊系統不因人為破壞或地震等天然災害所 致之資訊系統及資料庫損毀,已於龍潭宏碁渴望園區建置住宅地震保險異地 備援系統。

#### 辦理理賠機制模擬演練

為使各項標準理賠作業切實可行,本基金每年定期辦理住宅地震保險理 賠作業模擬演練,96年度進行住宅地震保險早期損失評估系統與資訊系統異 地備援機制模擬演練。



#### 合格評估人員教育訓練

配合住宅地震保險標準理賠作業程序,本基金訂定住宅地震保險地震建築物毀損合格評估人員培訓計畫。依據培育計畫與訓練計畫,委託保險事業發展中心辦理地震建築物毀損評估人員訓練課程,並將受訓合格評估人員建 檔管理。另因應合格評估人員執行建築物損壞評估工作之需,本基金協助各保險公司採購評估人員所需之各項工具與測量儀器。

#### 辦理各項業務宣導活動

製作宣導短片並辦理各項宣導活動,以喚醒社會大眾正視地震風險,並 提高住宅地震保險的投保率:(一)於全國各大報紙、廣播刊登廣告或進行 專訪,並設計網路互動遊戲與網路公司合作;(二)將宣導短片於有、無線 電視台、公共汽車電視、鐵路車站電視牆等播放;(三)赴各大銀行與金融 研訓院辦理住宅地震保險宣導;(四)配合各項金融、保險等理財活動與社 會大眾面對面進行宣導;(五)將風險管理概念向下紮根,委託中華保險服 務協會,赴台東、花蓮等地,辦理國中、小教育宣導。

#### 巨災風險研討會

為使業者進一步瞭解地震等巨災風險與住宅地震保險之經營,本基金結 合中華民國產物保險商業同業公會、中央再保險公司、逢甲大學金融學院與 逢甲大學風險管理與保險學系等,舉辦巨災風險之研討會。

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#### ■財務狀況

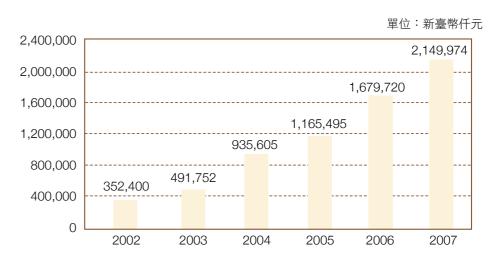
#### 收入狀況

地震基金各項收入(包括保費收入、管理費收入、利息收入等) 2007年已 達新臺幣21.50億元,其中最主要的收入為住宅地震險之純保費收入18.84億 元佔總收入之87.61%,利息收入雖僅佔4.94%,惟隨著資金的累積及市場利率 的揚升,利息收入所佔比重應可逐年攀升。

觀察本基金成立以來各年度收入的成長趨勢,雖然2007年的年成長率已 減緩但仍高達28%,顯見透過教育宣導與結合產險業者提升住宅地震保險投 保率的努力已見成效。

					單位	:新臺幣仟元
年度	2002 (4~12月)	2003	2004	2005	2006	2007
再保費收入	334,525	450,749	879,201	1,078,720	1,542,344	1,883,508
管理費收入	16,715	31,016	42,771	52,745	60,996	68,320
預留調整準備						54,656
利息收入	1,160	6,647	11,143	31,296	64,799	106,292
其他收入		3,340	2,490	2,734	11,581	37,198
收入合計	352,400	491,752	935,605	1,165,495	1,679,720	2,149,974
成長率		39.54%	90.26%	24.57%	44.12%	28.00%

#### 地震基金各年度收入及成長率表



#### 地震基金各年度收入分析表





#### 特別準備金累積狀況

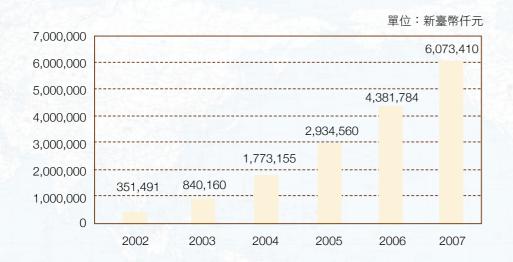
本基金於每年底就當年度各項收入總額於扣除再保費支出及其他各項成 本費用後的差額,均全數提存為特別準備金,旨在快速累積特別準備金,俾 萬一大地震發生時本基金得有充裕之資金以支應賠款所需。

本基金提存之特別準備金,2005年度已突破11.61億元,2006年為 14.47億元,2007年為16.91億元,截至2007年底特別準備金之累積餘額已達 新臺幣60.73億元,與2006年底新臺幣43.82億元相較,成長率為38.61%。

#### 地震基金特別準備金累積狀況表

					單位:	新臺幣仟元
年度	2002	2003	2004	2005	2006	2007
當年度提存金額	351,491	488,670	932,994	1,161,405	1,447,224	1,691,626
累積餘額	351,491	840,160	1,773,155	2,934,560	4,381,784	6,073,410
成長率		139.03%	111.05%	65.50%	49.32%	38.61%

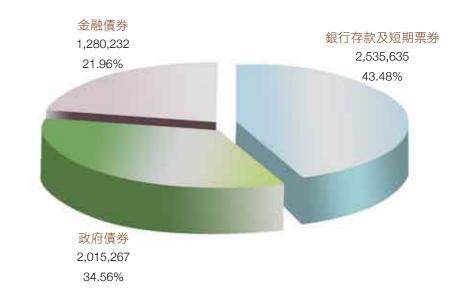
#### 地震基金特別準備金累積狀況圖



#### 資金運用狀況

餘12.80億元投資在金融債券佔21.96%。

				單位	:新臺幣仟元
項目	2006	年	2007	資金	
	資金配置	比重	資金配置	比重	增減額
銀行存款及短期票券	1,367,888	33.38%	2,535,635	43.48%	1,167,747
政府債券	1,618,095	39.49%	2,015,267	34.56%	397,172
金融債券	1,111,778	27.13%	1,280,232	21.96%	168,454
合計	4,097,761	100.00%	5,831,134	100.00%	1,733,373



本基金對於資金之運用,以安全性為首要考量,同時兼顧投資標的之流 動性及收益性,並本著風險分散原則對可運用資金作最妥適之配置。 截至2007年底,本基金可運用資金餘額達新臺幣58.31億元,其中銀行

存款及短期票券為25.36億元佔43.48%,政府債券為20.15億元佔34.56%,其

#### 地震基金可運用資金配置狀況表

#### 地震基金可運用資金配置狀況圖

單位:新臺幣仟元

## 🚳 五、地震保險基金未來展望

地震保險基金擔任住宅地震保險制度之中樞組織,短期內將在穩定中求 發展。目前,除業務順利運作外,並希望結合各產險業者的力量,進行各項 教育宣導活動,以有效提升住宅火災保險及住宅地震保險的投保率,加速地 震保險基金資金累積的速度。此外,為因應地震災害的發生,針對已建置完 成之承保、理賠作業規範與現有保單條款持續進行檢討,並隨業務之成長適 時調整危險分散機制之架構及承擔限額。

本基金中、長期之發展,主要重點在於強化與擴大地震保險基金的功 能。透過與國內、外地震相關研究機構合作,建立減災計畫、國內地震風險 評估模型與動態財務分析模型,更將積極研擬政府保證機制之運作,以因應 大規模地震發生時之財源籌措問題。

未來,住宅地震保險制度除了提供基本的保障外,期能擴大保障範圍, 承擔更大責任,尤其希望能透過不斷的宣導,使得住宅地震保險廣為社會大 眾所接受,進而建立以保險來分散風險之普遍認知,使地震發生時個人、家 庭所造成之經濟損害降至最低程度,社會得以迅速復原歸位。



Taiwan Residential Earthquake Insurance Fund



#### Words from the Chairman

Earthquakes strike without warning - and the damage they can wreak is beyond our imagination. Taiwan is located in the Circum-Pacific seismic zone; under the threat posed by earthquakes, the government has devised a comprehensive social safety network. In addition to strengthening the capabilities of the anti-quake system, a post-quake damages indemnity system is also indispensable.

The Taiwan Residential Earthquake Insurance Program is in response to the devastating 921 Earthquake, which struck Taiwan on September 21st, 1999. At that time, the percentage of the public with earthquake riders on their fire insurance was extremely low, equaling only 0.2%. That meant that the protection by insurance was limited. The Taiwan Residential Earthquake Insurance Fund (TREIF) was established by referring to the residential earthquake insurance schemes in other countries, as well as taking into account Taiwan's unique circumstances. In addition to providing residential fire insurance coverage, the public also receives basic earthquake insurance coverage when confronted with earthquake exposure, and allows policy holders to repair or rebuild their homes as quickly as possible.



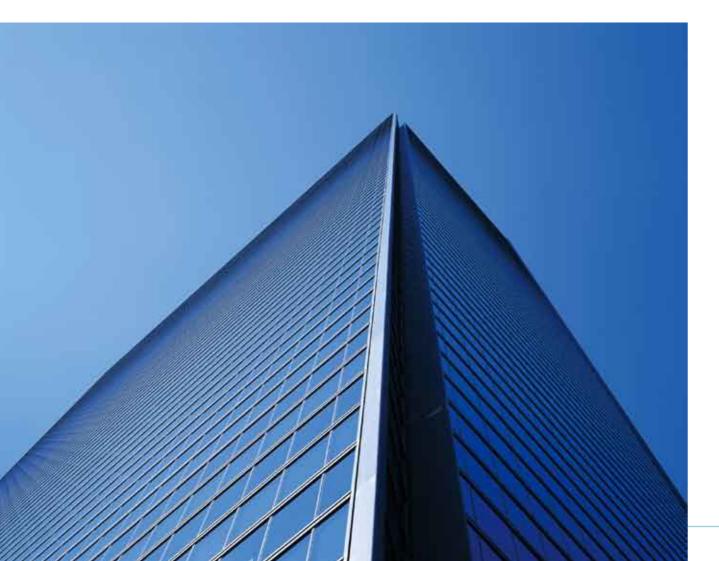
Since its inception in April 2002, TREIF's business has grown at a steady pace. Up through mid-2008, the number of policies in force has surpassed 1.96 million, equaling a take-up rate of 25.24%. After the TREIF assumed independent operations on July 1, 2006, it assumed management of the government regulated earthquake risk transfer scheme. In order to meet the financial demands of claims following a major quake, TREIF utilizes its funds with security as its primary concern, and focuses on both investment liquidity and profitability. At the end of June 2008, TREIF's special reserve reached NT\$6.88 billion, an increase of 35% from the same period of the previous year.

TREIF plays a pivotal role in the Taiwan Residential Earthquake Insurance Program. From its founding six years ago, up to today, it has established and completed relevant systems and business models step-by-step. In order to make its overall system operations more smooth and comprehensive, in addition to continued review and improvements to the current risk transfer mechanism and standard operating procedures for underwriting and claims, TREIF also integrates industry strengths to undertake multifaceted educational programs to improve the residential fire and earthquake insurance take-up rate, and thereby expedite the growth of the Earthquake Insurance Fund. In the future, the TREIF will strengthen cooperation with domestic and overseas earthquake research institutions, to make the TREIF a professional and trustworthy residential earthquake insurance management organization, and optimize the TREIF's functionality.

The Chairman Tsan-Ming Shih

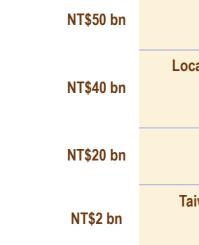
#### Taiwan Residential Earthquake Insurance Fund (TREIF)

Taiwan is located in the Circum-Pacific seismic zone, one of the world's three major seismic regions. Earthquakes are a natural peril that come without warning. Not only is their timing unpredictable, but the damage they are able to bring is beyond imagination. In light of this threat, the recognition of risk management is of the utmost importance. At all times, we must enhance anti-quake measures before calamity comes, and emphasis anti-quake measures in all situations. Just as importantly, response measures for when a quake has struck must be thoroughly established and constantly reviewed and practiced. Even then, no matter how good the anti-quake steps are, they are never able to prevent earthquakes, but only minimize the amount of destruction. Therefore, it is essential to establish an earthquake indemnification insurance system to strengthen the social safety network.



## The Taiwan Residential Earthquake Insurance Program's Development and Establishment

An earthquake measuring 7.3 on the Richter scale, known as the Chi-Chi earthquake, or the 9-21 earthquake jolted Taiwan on September 21, 1999. This was a destructive quake, that's still fresh in the minds of all Taiwan residents. As a result of this quake, the government decided (i), to set up an earthquake co-insurance system; (ii), to build a consensus on the need to strengthen the earthquake insurance mechanism; (iii), to enact Article 138-1 of the amended Insurance Law introduced at the end of 1999, requiring non-life insurance companies to provide residential earthquake insurance; and (iv), to establish a residential earthquake scheme. The amendment was passed and became effective July 9, 2001, and a prototype of the Taiwan Residential Earthquake Insurance Program came into existence. In accordance with Article 138-1 of the Insurance Law, authorities on November 30, 2001 announced the "Regulations Governing Implementation of the Residential Earthquake Co-insurance and Risk Bearing Mechanism", with a total liability limit of NT\$50 billion.



Government (NT\$10 bn)

Local and Overseas Reinsurance And/Or Capital Markets

(NT\$20 bn)

TREIF (NT\$18 bn)

Taiwan Residential Earthquake Co-Insurance Pool (NT\$2 bn)

(Liability Limits and Tiers)

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Effective April 1st 2002, all residential fire insurance policies must automatically include coverage for residential earthquake risk, with a maximum insured amount of NT\$1.2 million per household. An annual flat premium of NT\$1,459 was adopted. This amended coverage includes the perils of fire, explosion, landslide, land subsidence, land movement, land rupture, tidal wave, sea surge and flooding caused by earthquake and resulting in actual total loss or constructive total loss (residence being uninhabitable and needing to be demolished and rebuilt or its repair cost exceeding or equal to 50% of the replacement cost) to the insured residence. In addition, a Contingent Living Expense of NT\$180,000 shall be paid to a policyholder once the insured residence is assessed as actual or constructive total loss.

On November 30, 2001 the authorities announced the "Taiwan Residential Earthquake Insurance Fund Articles of Donation" and "Regulations Governing the Taiwan Residential Earthquake Insurance Fund" to lay the groundwork for the Taiwan Residential Earthquake Insurance Fund (hereafter referred to as TREIF). Plus, the Taiwan Insurance Development Fund was instructed to contribute NT\$20 million to fund the establishment of the TREIF.

During the initial stage of the TREIF, it was set up as an office of the Central Reinsurance Corporation (hereafter referred to as Central Re), staffed by Central Re personnel in the positions of executive secretary and other staff secretaries to handle all TREIF affairs. All earthquake insurance policies issued by property insurance companies were assigned to Central Re, which in turn ceded or allocated them among Co-insurance Pool members, TREIF, local and foreign insurers and reinsurers, and the government. This laid the foundation for Taiwan's residential earthquake insurance system.

On December 1, 2005, the authorities revised the "Regulations Governing Implementation of the Residential Earthquake Co-insurance and Risk Bearing Mechanism" and adjusted the risk undertaking system from four tiers, down to two tiers. The 1st tier's NT\$2 bn is still assumed by local non-life insurers and Central Re as pool members, and the remaining NT\$48 bn is assumed by TREIF and then transferred.

On December 29th 2006, the authorities announced revisions to the "Regulations Governing Implementation of the Residential Earthquake Co-insurance and Risk Bearing Mechanism", and amended the limit of the scheme from NT\$50 billion to NT\$60 billion effective from 2007. The limits for each tier and the risk takers are shown in the following diagram:

2nd Tier: NT\$57.6 billion, undertaken by TREIF and then transferred among various risk takers as follows: (1) Under NT\$17.6 billon, assumed by TREIF (2) NT\$17.6 billion ~ NT\$37.6 billion, assumed by local non-life insurers and overseas reinsurers, and/or capital markets (3) NT\$37.6 billion ~ NT\$45.6 billion, assumed by TREIF (4) NT\$45.6 billion ~ NT\$57.6 billion, assumed by the government

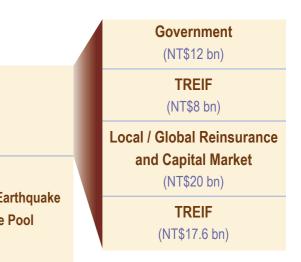
#### 2nd Tier TREIF NT\$60 bn (NT\$57.6 bn)

1st Tier **Residential Earthquake** NT\$2.4 bn **Co-Insurance Pool** 

(NT\$2.4 bn)

In accordance with revisions to Article 138-1 of the Insurance Law, amended on July 18, 2007, the "Regulations Governing Implementation of the Residential Earthquake Co-insurance and Risk Bearing Mechanism" was renamed the "Regulations Governing Implementation of the Residential Earthquake Risk Spreading Mechanism. Starting from 2008, all earthquake insurance underwritten by non-life insurance companies was ceded to TREIF, then TREIF retained or transferred the risk, which laid the foundation for the current earthquake insurance operations model.

1st Tier: NT\$2.4 billion in risk, undertaken by Co-insurance Pool.



#### TREIF's Pivotal Role in the Taiwan Residential Earthquake Insurance Program

Taiwan residential earthquake insurance is a government guided scheme and obviously the pivotal organization undertaking this role should be a non-profit foundation – only then can it fully implement government policies. During the initial stage implementing the Taiwan Residential Earthquake Insurance Program, Central Re was designated its manager. It was responsible for managing the coinsurance pool and overseas reinsurance placement, and made great contributions through its sound efforts to establish earthquake insurance underwriting and claim settlement guidelines. However, it is inevitable that some reinsurers might risk insolvency; and with no provisions under existing regulations prescribing that Central Re should assume such credit risk, the question arose as to who should assume losses resulting from the reinsurers' insolvency. In order to resolve this problem, the authorities revised the Regulations Governing Taiwan Residential Earthquake Insurance Pool and Risk Transfer Scheme and put it into effect from December 1, 2005; proclaiming TREIF as the pivotal organization of the program, and actively promoting the TREIF's independent operations.

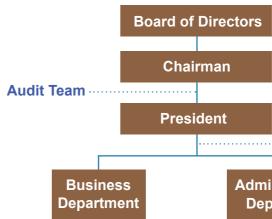
As a result, TREIF became independent of Central Re on July 1, 2006. TREIF also became responsible for assuming and transferring residential earthquake insurance risk, establishment and revision of underwriting guidelines and standard operating procedures for claims, co-insurance pool management, reinsurance placement, business promotion, fund management and training and education for qualified adjustors, architects and engineers.

Since TREIF is the final risk taker for Taiwan residential earthquake insurance liability, in the 1st Tier of the risk transfer scheme, in addition to the portion it assumes (NT\$25.6 billion), it must also undertake the credit risk from the NT\$20 billion reinsurance placement portion. On July 18, 2007, a revision to Article 138-1 of the Insurance Law was passed, granting TREIF responsibility for managing the risk transfer scheme, which was set up by the authorities.

#### **TREIF Structure**

TREIF is a public service, non-profit foundation, established officially on January 17, 2002. It is the third national residential earthquake insurance program in Asia, following Japan and Turkey.

#### **TREIF Organizational Chart**



#### **Board of Directors**

The Board of Directors is the TREIF's ultimate decision-making body. The Chairman of the Board is elected from board members. The TREIF's first Chairman of the Board was Mr. Chun Chen, who concurrently served as deputy minister of the Ministry of Finance. In July 2002, Ms. Susan S. Chang, also concurrent deputy minister of the Ministry of Finance became the new chairwoman. On September 30, 2005 the Financial Supervisory Commission (FSC) Commissioner Mr. Kuen-Bao Ling was appointed to serve as chairman, also concurrently. Then, on April 15, 2008, TREIF chose its third slate of directors, with Mr. Tsan-Ming Shih, Chairman of the Non-Life Insurance Association of the Republic of China becoming the new Chairman of the Board, also serving concurrently.

#### ······Supervisor

Task Force Administration Department



#### Directors

The Board of Directors is comprised of eleven members, all appointed by the relevant authorities according to the following:

- Three representatives from the relevant authorities.
- One representative from the National Treasury Agency, Ministry of Finance.
- Four experts/scholars designated by the authorities.
- Three representatives from the co-insurance pool.

#### Supervisor

Currently, TREIF has two supervisors who are designated by the authorities to supervise the execution of business and financial operations.



#### Audit Team

In order to ensure TREIF's healthy business development, and guarantee the accuracy and integrity of finance and management data, the "Implementation Rules for TREIF Internal Audit and Internal Control system" were established – which call for the establishment of an Audit Team under the Chairman of the Board. The Audit Team is responsible for auditing each department's business operations, as well as making periodic appraisal of the efficiency of each department's self checks.

#### Residential Earthquake Insurance Development and Planning Committee

Residential earthquake insurance is a government guided insurance, and the relevant decision making must be far-reaching and meticulous. In March 2008, the TREIF set up the Residential Earthquake Insurance Development and Planning Committee to assist in formulating relevant policies. The TREIF's president heads the Committee, with members recruited by the TREIF from experts and scholars, representatives from non-life insurance industry, government and academic circles. In coordination with practical demands, currently the team is divided into three subcommittees: Risk Transfer and Premium Rate Subcommittee, Underwriting, Claim and Legal Subcommittee, as well as IT, Statistics and Educational Promotion Subcommittee. In the future, the Committee's structure may be adjusted in accordance with actual operations.



#### **Department Duties**

Currently, Mr. Chang Wan-Li is the TREIF President, entrusted to manage its business affairs. Under the president are two departments, the Business Department and the Administration Department, whose responsibilities are as follows:

<ul> <li>Residential earthquake insurance risk undertaking and transfer</li> <li>Meetings for Residential Earthquake Insurance Developmental Group</li> </ul>
to examine the current residential earthquake insurance system, actual
<ul> <li>operations and future developments</li> <li>Business guidance planning</li> <li>Planning for residential earthquake insurance adjustor gualification training</li> </ul>
<ul> <li>A education</li> <li>IT related affairs and set up &amp; maintenance of residential earthquake</li> </ul>
database
<ul> <li>Executes R&amp;D and future planning</li> </ul>

	• Financial related operations (including formulation and review of asset
	utilization and safeguarding, and financial resource planning)
	• Formulation of the annual operation plan and budget, account reckoning
Admini	and other accounting related matters
Depa	<ul> <li>Human resources related affairs, including hiring, testing and management</li> </ul>
	• General operations (including petty cash, paperwork, purchasing and
	property management etc.)
	<ul> <li>Formulation and revision of laws and regulations related to above</li> </ul>

#### Business Department Duties

- 1. Manages risk assuming and transferring for residential earthquake insurance (including data transmission, underwriting, claim, and examination).
- 2. Manages meetings for Residential Earthquake Insurance Development and Planning Committee and its Subcommittees to examine the current residential earthquake insurance system, practical operations and future developments, including:
- (1) Risk Transfer and Premium Rate Subcommittee: examines and improves the risk transfer scheme, insurance policy terms and coverage, premiums, and reserve funds etc.
- (2) Underwriting, Claim and Legal Subcommittee: studies issues related to underwriting and claims handling, regulations and guidelines related to earthquake insurance and insurance policy terms.
- (3)IT, Statistics and Educational Promotion Subcommittee: reviews and establishes IT related systems for residential earthquake insurance, training and education for adjustors, architects and engineers, as well as implementation and planning regarding various business promotion programs.
- 3. Implements educational programs and promotions for residential earthquake insurance.
- 4. Implements training and education for adjustors.
- 5. Manages IT related matters and the establishment and maintenance of the residential earthquake database.
- 6. Executes R&D and future planning.

#### Administration Department Duties

- 1. Manages financial related operations, including the investment of financial assets, draft and review of fundraising plans, and custody of funds.
- 2. Formulates annual operation plan and budget; compiles annual financial statements; and handles other related accounting activities.
- 3. Manages human resource affairs, including recruiting, performance evaluations and other related activities.
- 4. Performs general operations, such as petty cash, paperwork, procurement, and property management etc.
- 5. Formulates and reviews the internal rules, regulations and procedures related to the above operations.





#### Business Situation

Since 2002, when the residential earthquake insurance business started, it has grown at a steady pace. At the end of 2007, the number of policies in force surpassed 1.87 million, equaling a take-up rate of 24.63% of the 7.6 million residences in Taiwan. The gross premiums written of 2007 surpassed NT\$2.7 billion, representing a 12% increase over the previous year.

**Gross Premiums Written of the Residential Earthquake Insurance Business** 

#### **Residential Earthquake Insurance Gross Premiums** Written and Growth Rate

Unit: NT\$1000

Year	Gross Premiums Written				
1001	Amount NT\$1,000	Growth Rate			
2002 (April 1st – December 31st)	661,231	-			
2003	1,242,788	88%			
2004	1,702,959	37%			
2005	2,101,527	23%			
2006	2,425,076	15%			
2007	2,722,298	12%			

#### Setting Standard Claims Operations and Procedures for **Residential Earthquake Insurance**

TREIF convened representatives from non-life insurance companies, the Non-life Insurance Association of the R.O.C., the Taiwan Insurance Institute and relevant experts and scholars to set a standard operating procedure for residential earthquake insurance claims. The TREIF also compiles booklets regarding standard operating procedures for residential earthquake insurance claims, as well as holds seminars for relevant personnel from nonlife insurance industry, and the building administrative departments in local governments in northern Taiwan on standard operating procedures for residential earthquake insurance claims.

#### **Establishing Preliminary Loss Evaluation System**

This system is designed to quickly assess the initial losses facing earthquake insurance following a quake; evaluate whether the earthquake losses surpass the risk transfer scheme's total liability; and use this data as a reference for determining whether to reduce the payment amount, and settle claims on a prorata basis. TREIF has authorized the National Center for Research on Earthquake Engineering to build a preliminary loss evaluation system, which integrates the residential earthquake insurance database to generate a preliminary loss report within 3-5 minutes, and send the results via a cell phone message to the appropriate personnel. Thereafter, based on the revised earthquake data, it is able to generate manual reports on losses caused by the quake.

#### **Establishing Remote Backup System**

The TRIEF is a pivotal organization in the residential earthquake insurance system, and possess complete records on the residential earthquake insurance in Taiwan. In order to prevent any damage to the residential earthquake insurance database due to human negligence or natural disaster, a Residential Earthquake Insurance Remote Backup System has been set up at the Aspire Industrial Park in Longtan, Taoyuan County.

#### **Claims System Simulation**

To ensure that the standard operating procedures for claims are practical and viable, every year TREIF conducts periodic residential earthquake insurance claims operations simulation. In 2007, we also conducted a simulation of the residential earthquake insurance preliminary loss analysis system and information system remote backup.





#### **Qualified Adjustor Educational Training**

Working in coordination with standard operating procedures for residential earthquake insurance claims, TREIF has formulated plans for residential earthquake insurance adjustors training. According to the training plan, the Taiwan Insurance Institute is entrusted to conduct building structural damage adjustor training classes. Plus, TREIF put all qualified adjustors into a database. At the same time, to meet the needs of qualified adjustors conducting building structural damage evaluation, TRIEF assists non-life insurance companies in procuring the necessary tools and instruments.

#### **Business Promotion Activities**

TRIEF produces Public Service Announcement short films and conducts various promotional activities to encourage the public to take the threat of earthquakes seriously, as well as improve the residential earthquake insurance take-up rate. This work includes: (i), placing ads and/or arrange interviews with major newspapers and broadcasters, as well as create interactive online games, and cooperate with online portals; (ii), arrange the broadcast of PSA short films on terrestrial and cable TV, public bus TV systems and train station TV walls; (iii), conducting residential earthquake insurance promotion programs at major banks and financial training centers; (iv), conducting face-to-face promotion programs with the public at financial and insurance company promotional events and activities; (v), to promote the risk management concept taking hold at the grassroots level, TREIF has entrusted the Chunghua Insurance Service Association to hold educational programs for elementary school and junior high school students in Taitung, Hualian and other areas.

#### **Catastrophe Risk Seminars**

To help the industry better understand the risks brought by earthquakes and other catastrophes or natural disasters, as well as the management of residential earthquake insurance – TREIF holds catastrophe risk seminars in conjunction with the Non-Life Insurance Association of the Republic of China, Central Re, College of Finance of Feng Chia University, and Department of Risk Management and Insurance of Feng Chia University.

#### Financial Situation

#### Revenue

TREIF's total revenue in 2007 (including premiums, management fees, interest etc.) totaled NT\$2.15 billion. Of this amount, the majority was pure risk premium allotments of NT\$1.884 billion, representing 87.61% of the total, followed by interest income at only 4.94%. However, with our accumulating assets and appreciation of market interest rates, the proportion of income derived from interest income is bound to grow from year to year.

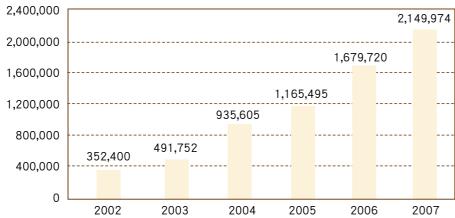
Looking at growth trends for TREIF's annual revenue since its founding, although annual growth slowed in 2007, yet it still reached 28%. This shows that through educational promotions and integration with the industry, efforts to increase residential earthquake insurance have been effective.

#### **TREIF Annual Revenue and Growth Rates**

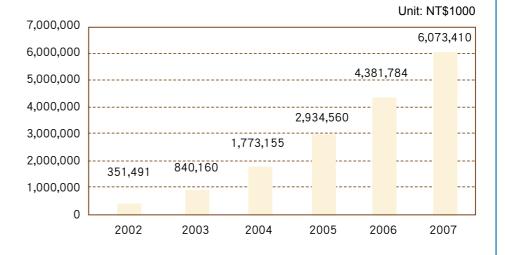
					Unit: I	NT\$1000
Year	2002 (April - December)	2003	2004	2005	2006	2007
Reinsurance Income	334 <b>,</b> 525	450,749	879,201	1,078,720	1,542,344	1,883,508
Management Fee Income	16,715	31,016	42,771	52,745	60,996	68 <b>,</b> 320
*Reserve Adjustment						54 <b>,</b> 656
Interest Income	1,160	6,647	11,143	31,296	64,799	106,292
Other Income		3 <b>,</b> 340	2,490	2,734	11,581	37 <b>,</b> 198
Total	352,400	491,752	935,605	1,165,495	1,679,720	2,149,974
Growth Rate		39 <b>.</b> 54%	90.26%	24 <b>.</b> 57%	44.12%	28.00%

\* Reserve Adjustment means the reserve against adjustment of premiums.





## **TREIF Special Reserve Accumulation**



#### **Special Reserve**

At the end of each year, after all incomes minus costs for reinsurance premiums and all other expenses, the balance should be withheld as a special reserve. TREIF hopes to build up this reserve as quickly as possible, so that in the event of an earthquake, there will be sufficient funds to cover compensation claims.

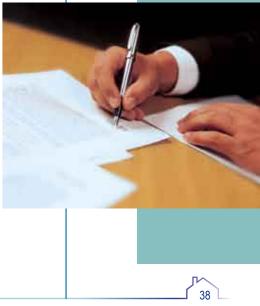
TREIF's special reserve deposited in 2005 already surpassed NT\$1.161 billion, while it equaled NT\$1.447 billion in 2006, and NT\$1.691 billion in 2007; bringing the grand total for the reserve to NT\$6.073 billion at the end of 2007 - that's a 38.61% increase over the previous year's NT\$4.382 billion.

#### **TREIF Special Reserve Accumulation**

					Ur	nit: NT\$1000
Year	2002	2003	2004	2005	2006	2007
Special Reserve Total	351,491	488,670	932,994	1,161,405	1,447,224	1,691,626
Annual Accumulation	351,491	840,160	1,773,155	2,934,560	4,381,784	6,073,410
Growth Rate		139.03%	111.05%	65 <b>.</b> 50%	49.32%	38.61%









#### **Capital Utilization**

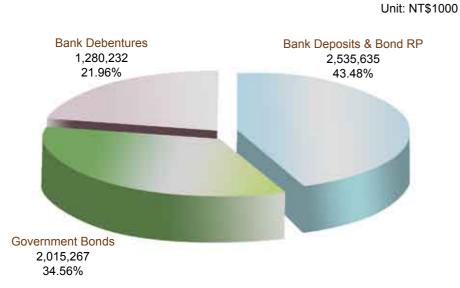
TREIF utilizes its funds with security as its primary concern, focusing on both investment liquidity and profitability. Moreover, TREIF utilizes its available funds in the most effective manner based on risk diversification.

As of the end of 2007, TREIF's available funds balance reached NT\$5.831 billion, with bank deposits and bond RP totaling NT\$2.536 billion, comprising 43.48% of the total; government bonds totaled NT\$2.015 billion or 34.56%; and the remaining NT\$1.280 billion, or 21.96%, invested in bank debentures.

#### **TREIF Investment Portfolio**

Unit: NT\$1000							
ltem	200	06	200	Investment			
	Investment	Portfolio Mix	Investment	Portfolio Mix	Growth		
Bank Deposits & Bond RP	1,367,888	33.38%	2 <b>,</b> 535 <b>,</b> 635	43.48%	1,167,747		
Government Bonds	1,618,095	39.49%	2,015,267	34.56%	397,172		
Bank Debentures	1,111,778	27.13%	1,280,232	21.96%	168 <b>,</b> 454		
Total	4,097,761	100.00%	5,831,134	100.00%	1,733,373		

**TREIF Investment Portfolio** 



TREIF plays a pivotal role in the Taiwan Residential Earthquake Insurance Program, and seeks steady growth in the short term. Currently, in addition to promoting smooth business operations, TREIF also hopes to integrate industry strengths to promote educational programs that will effectively increase the take-up rate of residential fire insurance and residential earthquake insurance - and thereby expedite the accumulation of TREIF's special reserve. Moreover, TREIF shall prepare to respond to earthquake disasters by continuing to review underwriting, standard operating procedures for claims, and existing insurance policy terms and conditions.

Looking at mid-term and long-term development, the primary goal will be to strengthen and expand the functionality of TREIF. Through cooperation with relevant local and overseas seismic research institutions, TREIF will establish disaster mitigation plans, as well as domestic earthquake risk assessment models and dynamic financial analysis models. Moreover, TREIF will actively draw up plans for the operations of a government assurance mechanism to deal with the issues of raising funds following a major earthquake.

Looking to the future, TREIF hopes that in addition to providing basic residential earthquake coverage, it will be also able to expand the scope of protection, and assume even greater responsibilities. More importantly, TREIF hopes that through constant educational and promotional activities, the residential earthquake insurance will gain broad acceptance by the public, and thereby make commonplace the concept of using insurance to spread the risks. Through this, residential economic damages will be minimized when an earthquake strikes, enabling society to get back on its feet as quickly as possible.

