



# Hong Kong

6-9 May 2012



## The Realpolitik of Using MCEV in Asia

A Potential Way Forward for Embedded Value Reporting in Chinese Taipei and Elsewhere in the Region

**Simon Walpole  
&  
Ophelia Au Young**

Session Number: **TBR3**



Joint IACA, IAAHS and PBSS Colloquium in Hong Kong  
[www.actuaries.org/HongKong2012/](http://www.actuaries.org/HongKong2012/)

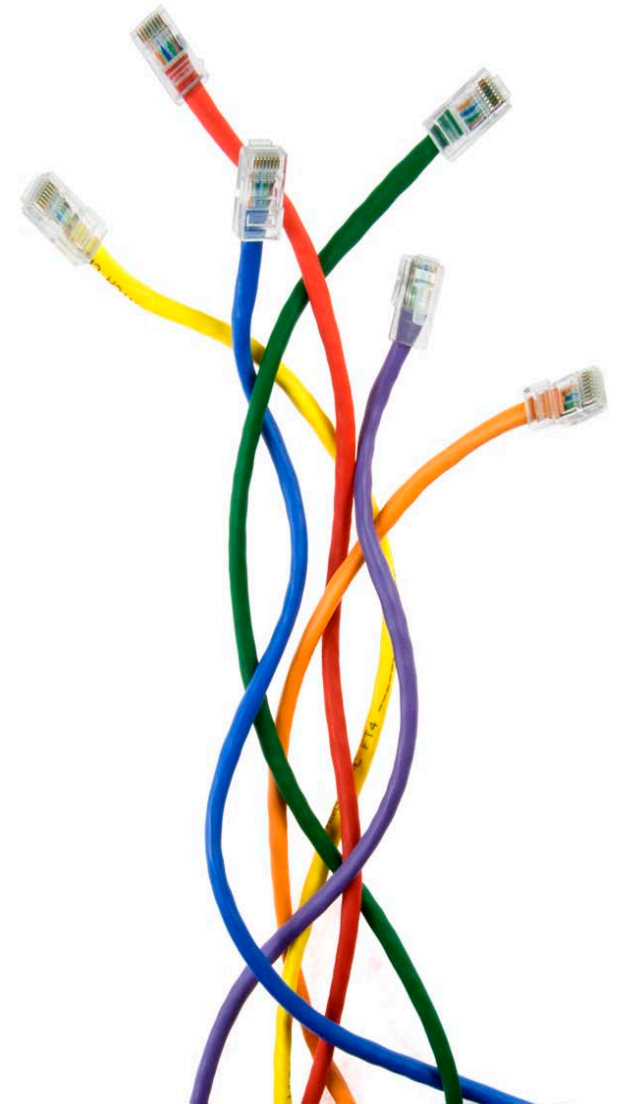
# The Realpolitik of Using MCEV in Asia

## Agenda

1. Quick definition of TEV, EEV and MCEV
2. Why is it difficult for Chinese Taipei to move to EEV or MCEV?
3. A potential way forward for EV reporting in Chinese Taipei

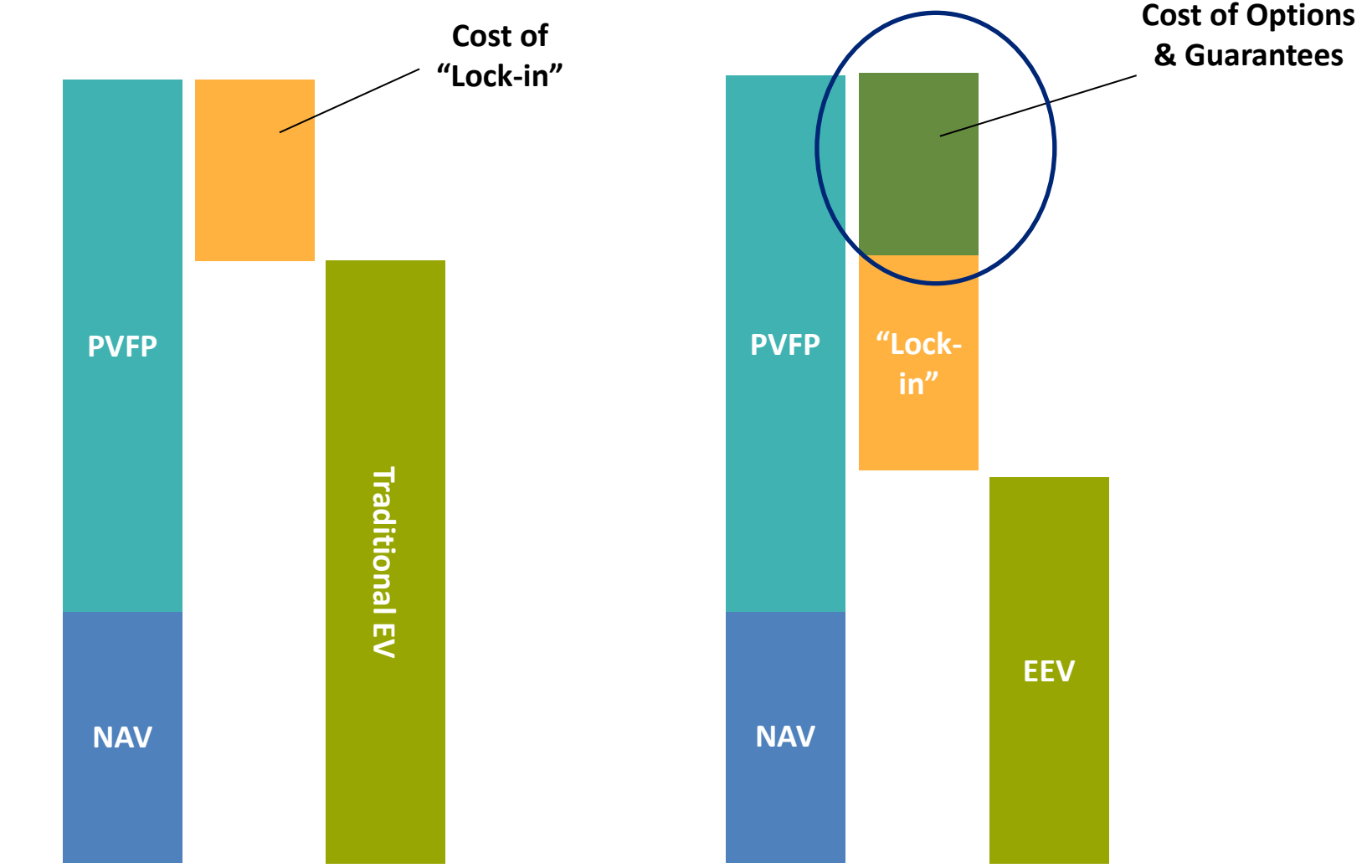
# The Realpolitik of Using MCEV in Asia

## 1. Quick definition of TEV, EEV and MCEV

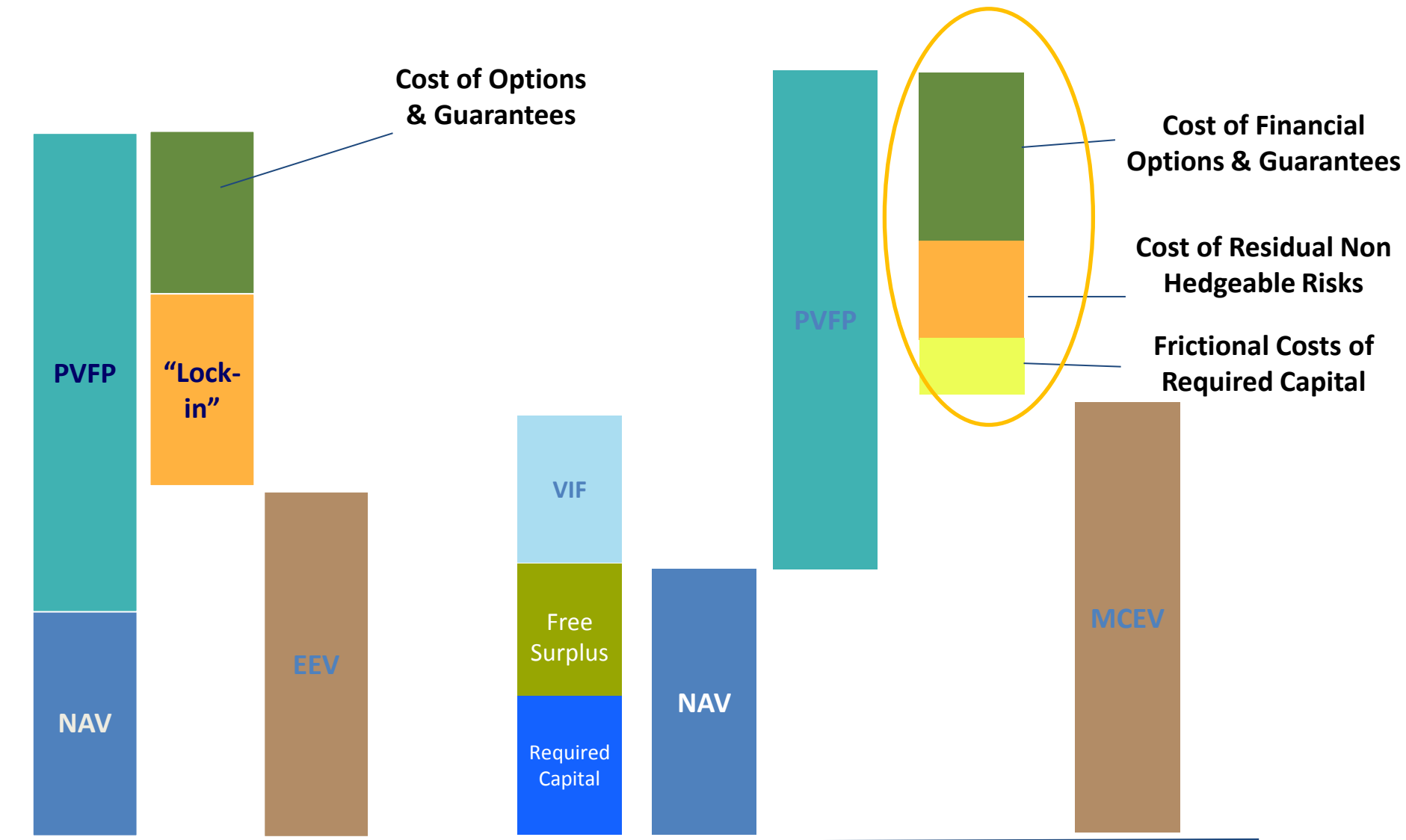


# The Realpolitik of Using MCEV in Asia

## TEV versus EEV

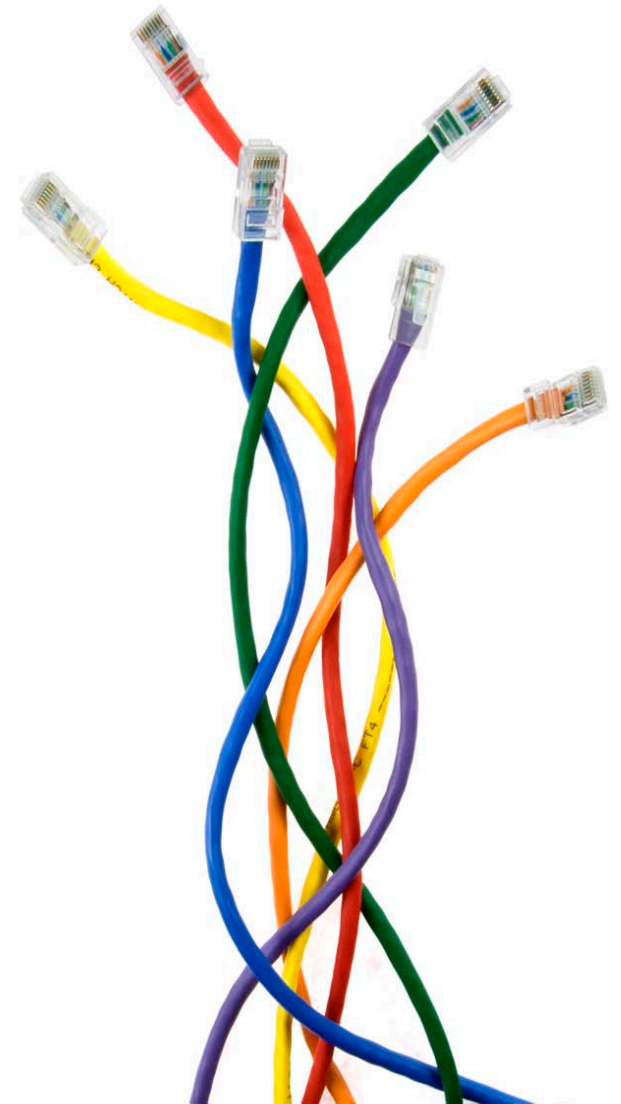


# The Realpolitik of Using MCEV in Asia



# The Realpolitik of Using MCEV in Asia

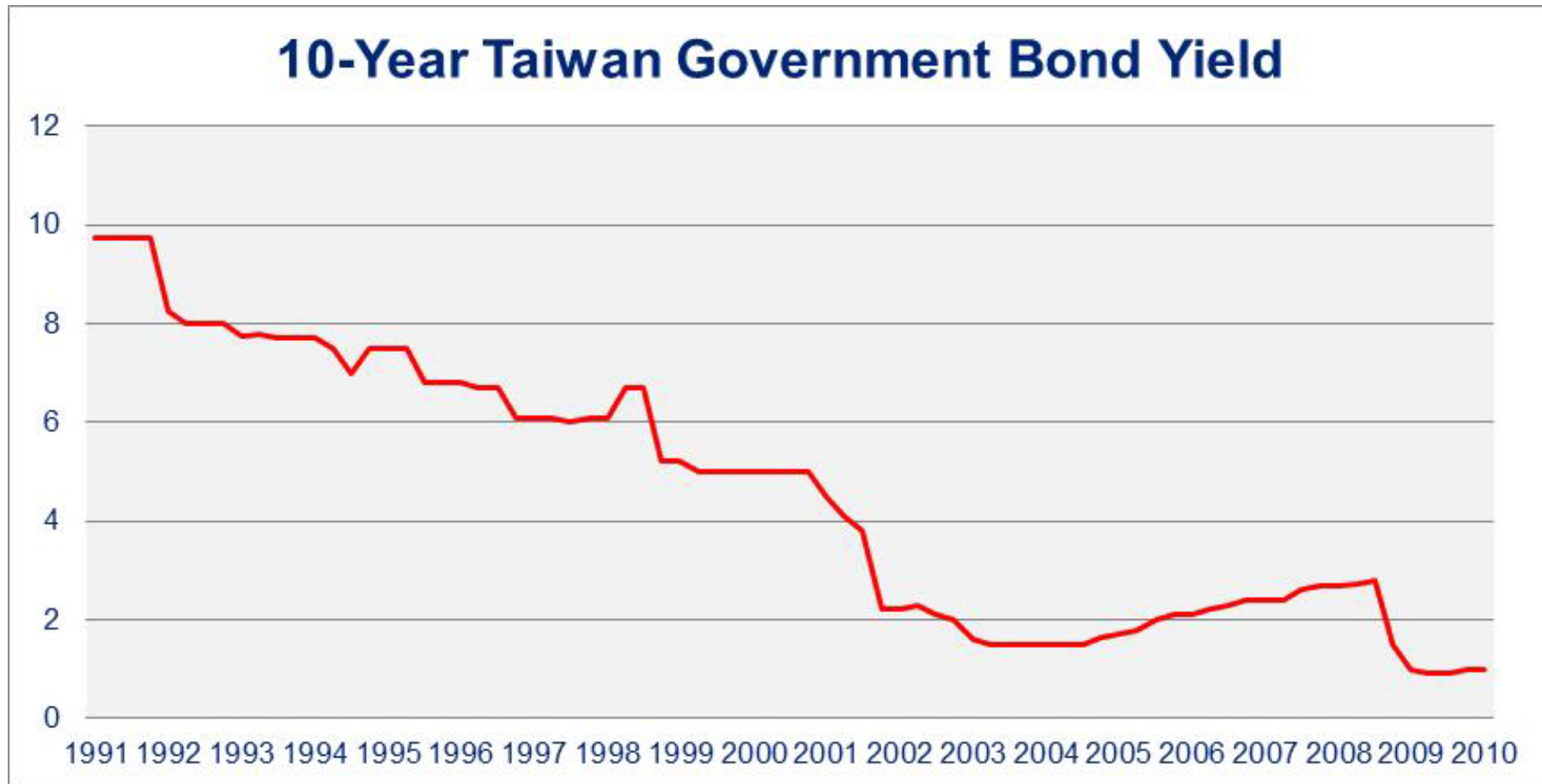
2. Why is it difficult for Chinese Taipei to move to EEV or MCEV?



6

# The Realpolitik of Using MCEV in Asia

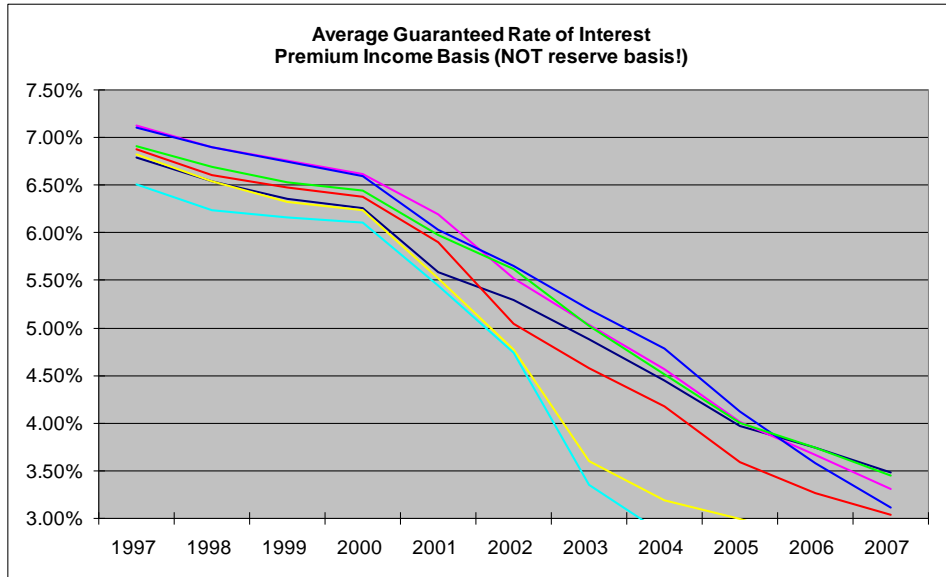
## Recent History of Interest Rates in Chinese Taipei



Source: TII data

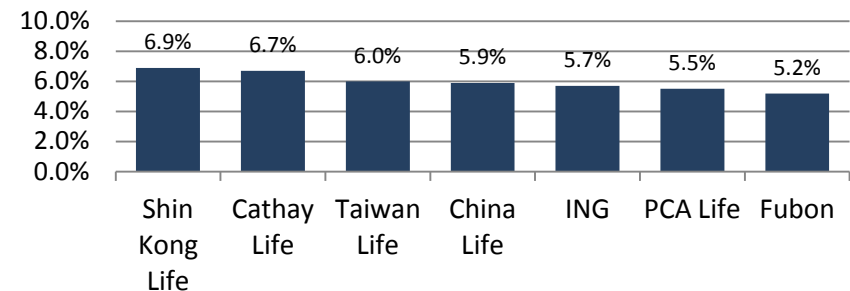
# The Realpolitik of Using MCEV in Asia

## Negative Interest Spread



Source: TII data and knowledge of the level of interest rate guarantees in each year

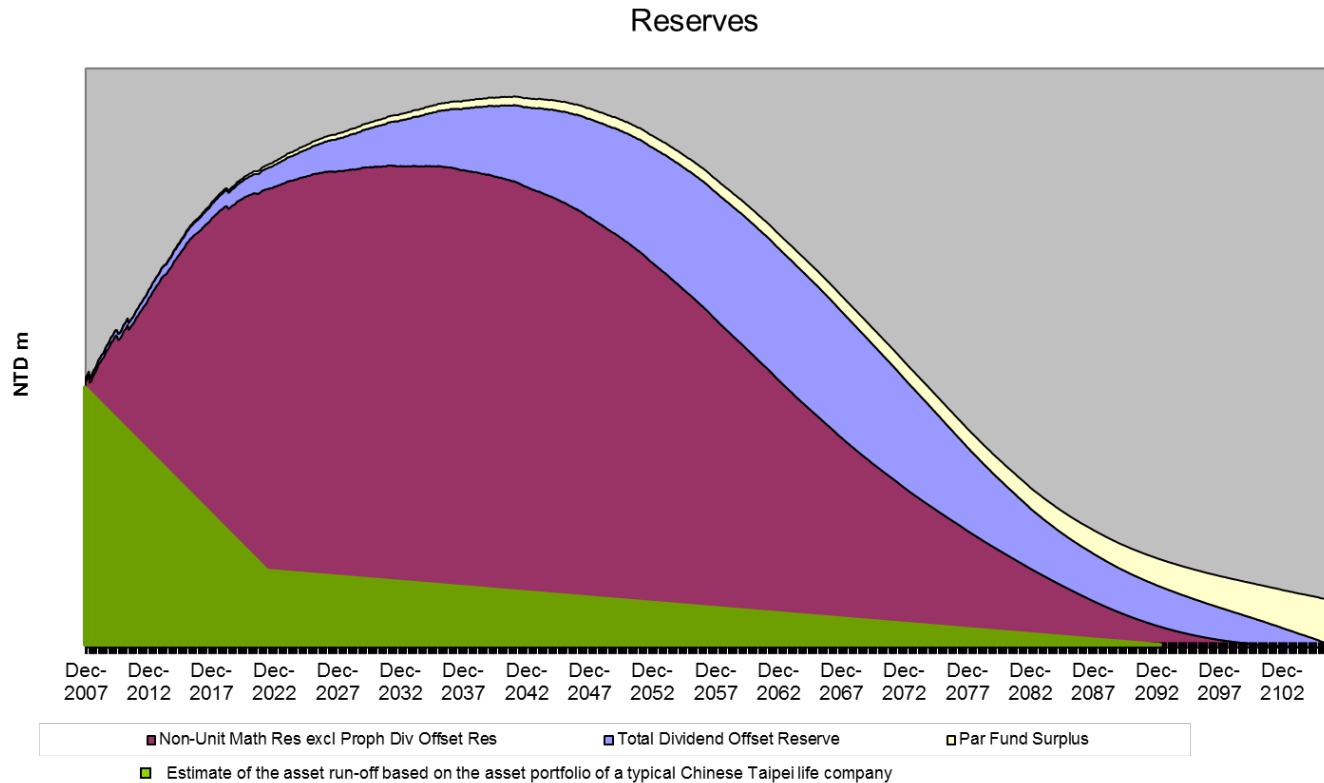
### Estimated required yield on the Legacy block



Source: TII Data and JP Morgan estimates

# The Realpolitik of Using MCEV in Asia

## Liability & Asset Duration Mismatch

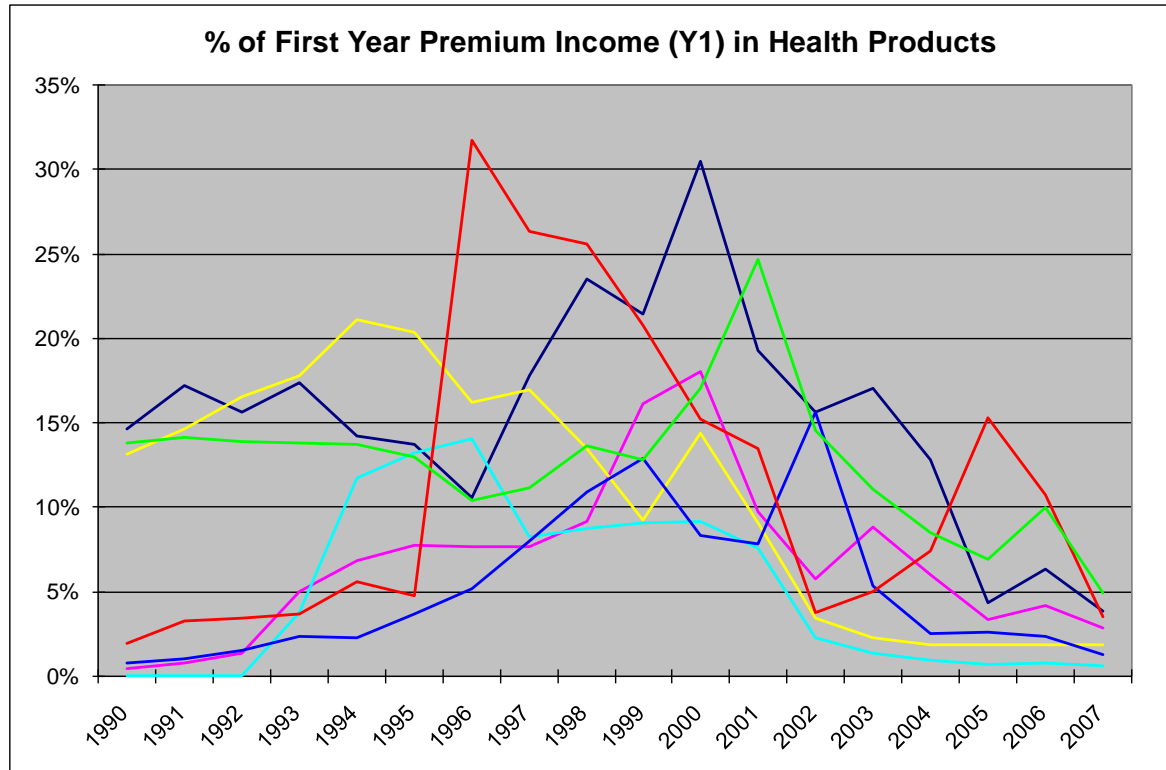


About Age 25

Source: Deloitte's projection using a sample Chinese Taipei life company

# The Realpolitik of Using MCEV in Asia

## Guaranteed Health Products

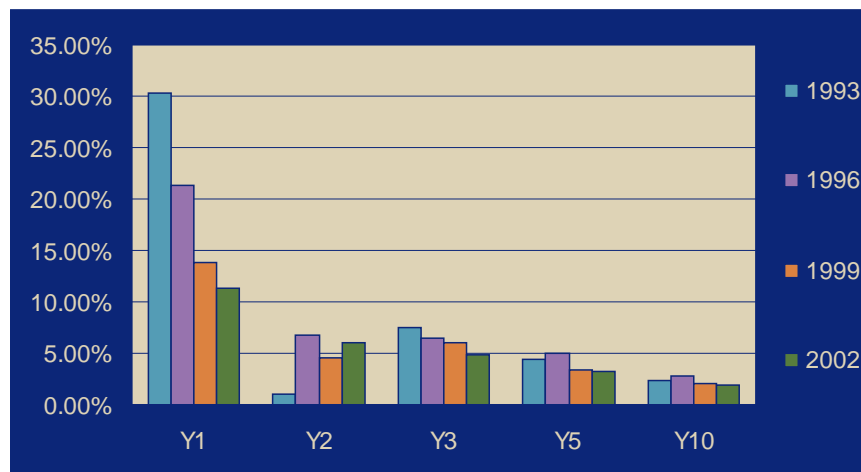
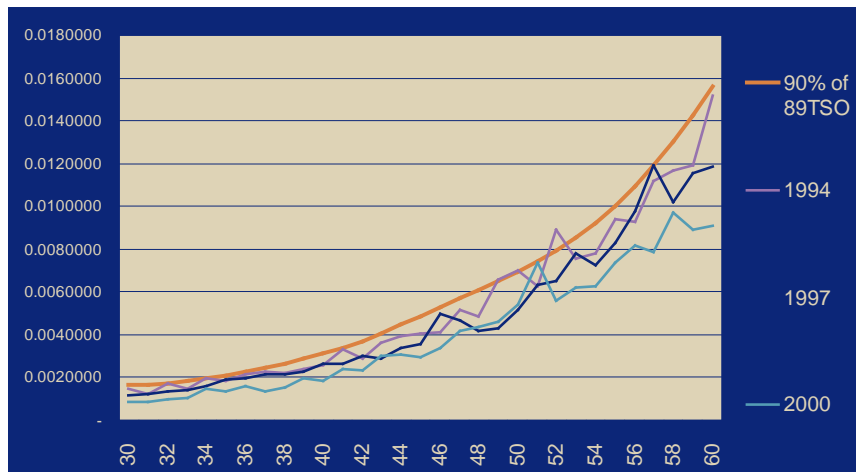
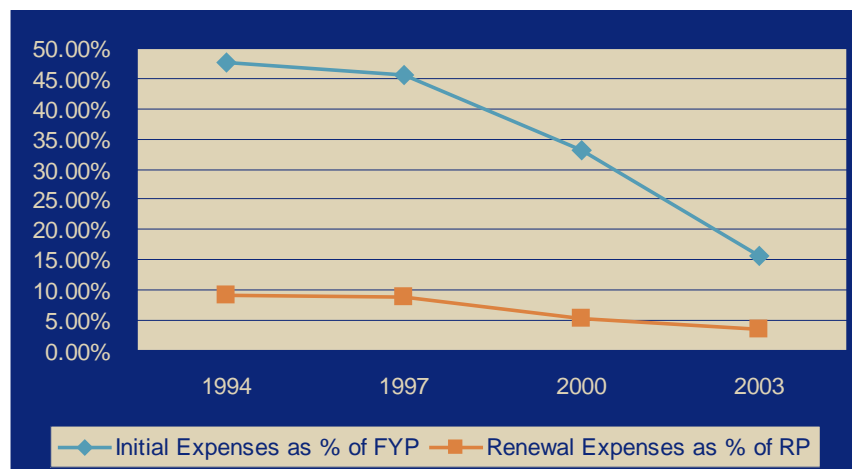
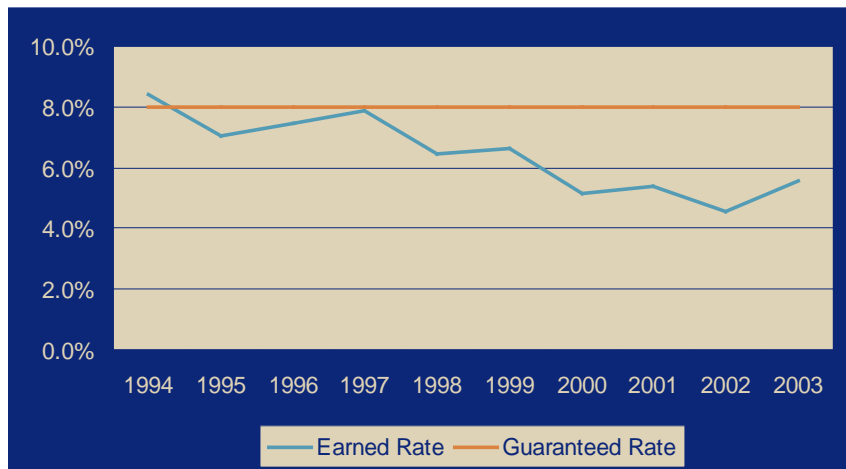


Source: TII Data



# The Realpolitik of Using MCEV in Asia

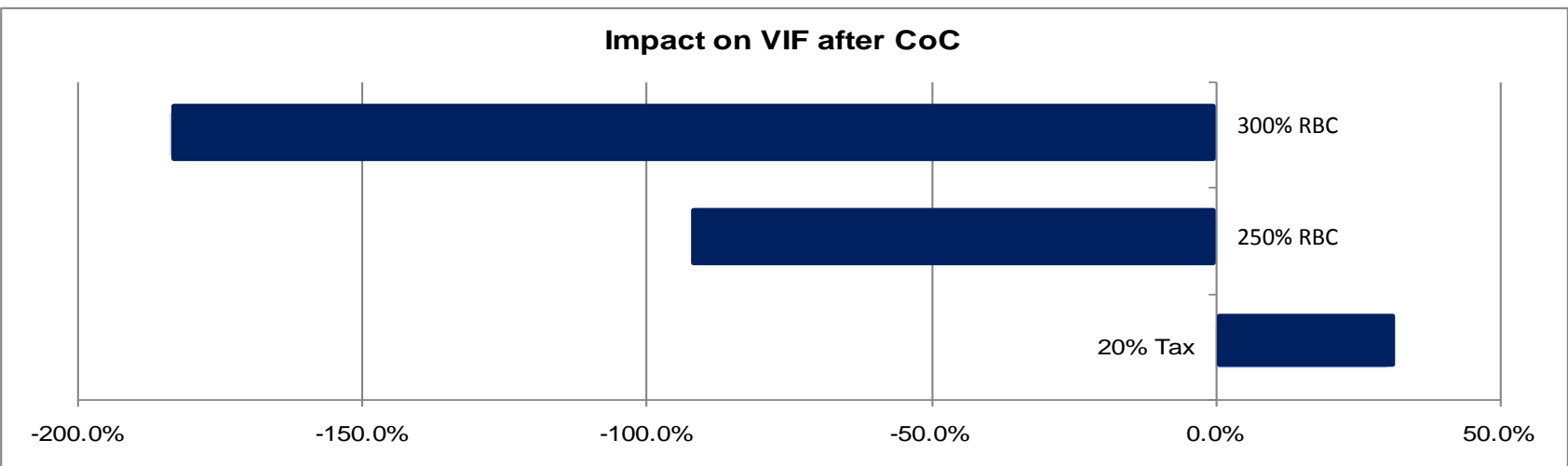
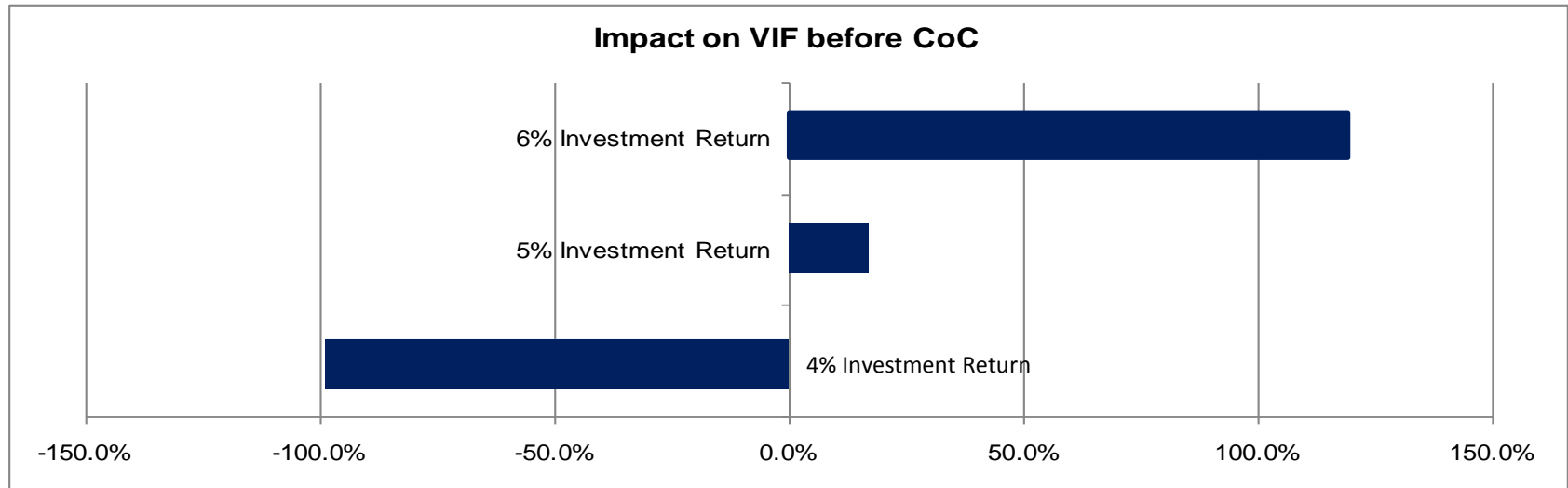
## Profits: Experience over 10 Years from 1994



Source for all charts: Deloitte's presentation at 5<sup>th</sup> CEO Summit

# The Realpolitik of Using MCEV in Asia

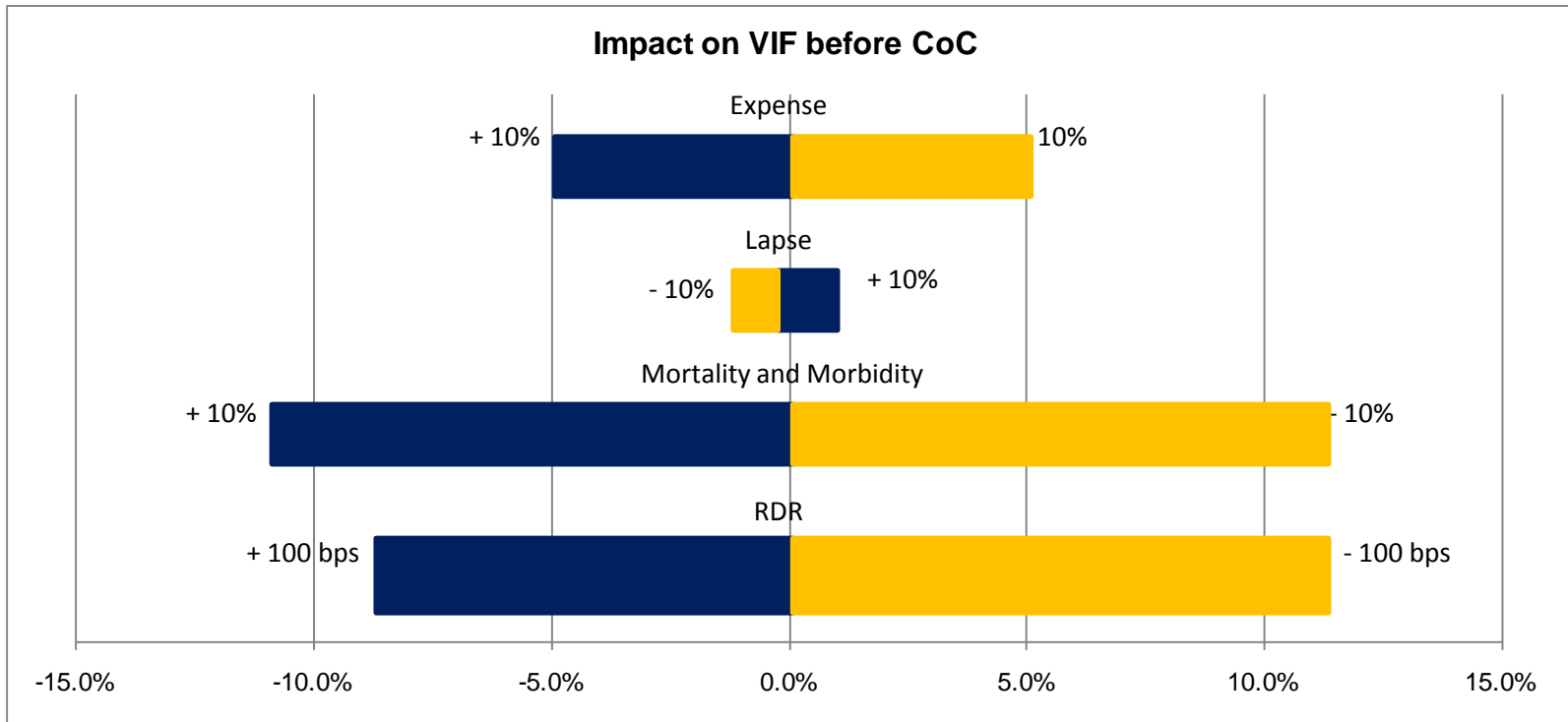
## Profitability: Sensitivity



Source: Deloitte's study using a sample Chinese Taipei life insurance company

# The Realpolitik of Using MCEV in Asia

## Profitability: Sensitivity



Source: Deloitte's study using a sample Chinese Taipei life insurance company

# The Realpolitik of Using MCEV in Asia

## Summary of Recently Published EV Results

	As at 31.12.2010				
	Cathay	Shin Kong	Fubon	China Life	TW Life
Published Results (NT\$BN)					
ANW	193.00	148.50	81.90	48.10	12.134
VIF before CoC	338.00	62.30	114.50	36.00	21.159
CoC	-82.00	-34.80	-40.90	-12.96	-6.119
VIF	256.00	27.50	73.60	23.04	15.04
<b>EV</b>	<b>449.00</b>	<b>176.00</b>	<b>155.50</b>	<b>71.14</b>	<b>27.18</b>
<b>VNB</b>	<b>43.00</b>	<b>12.60</b>	<b>24.80</b>	<b>6.88</b>	<b>4.27</b>
<b>Method &amp; Assumptions</b>					
Method	TEV	TEV	TEV	TEV	TEV
RDR (VIF)					
	10%	10.00%	11.00%	10.50%	10.00%
RDR (VNB)					

Source: company's published EV disclosure

# The Realpolitik of Using MCEV in Asia

## Recent Transaction Prices

	Fubon/ING	Aegon/Meifu	NanShan / Ruentex	Metlife / Chinatrust
Published Results (NT\$BN)				
Announcement Date	Oct-08	Apr-09	Feb-11	Oct-11
Transaction Value	19.50	2.73	64.80	5.30
Stated Book Value	27.33	4.65	148.04	9.80
Price/Book Value	0.71x	0.59x	0.43x	0.55x

Source: internet information

Assume that Transaction Value = Appraisal Value  
 = Embedded Value + Value of Future New Business

Assume that Value of Future New Business > 0

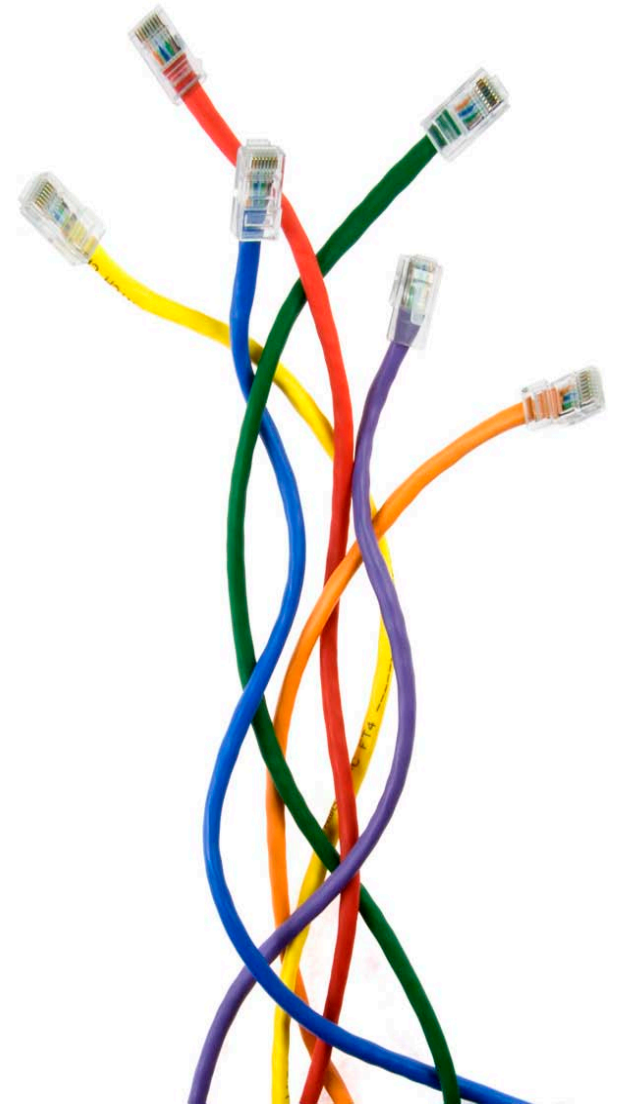
So Transaction Value > Embedded Value  
 > Book Value + VIF

But Transaction Values < Book Value

Means VIF < 0

# The Realpolitik of Using MCEV in Asia

## 3. A potential way forward for EV reporting in Chinese Taipei



# The Realpolitik of Using MCEV in Asia

## Issues with TEV in Chinese Taipei – Methodology

- Investment return assumptions
  - Objectivity difficult to demonstrate
  - Risk margins capitalised (riskier assets => higher EV)
- Allowance for risk
  - Cost of options and guarantees not fully recognised
  - Same RDR for all product types
  - Cost of capital limited to 200% RBC

# The Realpolitik of Using MCEV in Asia

## Issues with TEV in Chinese Taipei – Credibility

- EVs more optimistic than implied EV in actual life company transactions
  - Many transactions
  - Implied VIF negative in every case
  - VIF in published EV positive in every case
  - Are transacted companies different from those with published EVs?
- EVs higher than market capitalisation in some cases
  - Observed over several years in some cases
  - But market cap is for whole listed Group, not just the life insurance entity...
- Other studies suggest that EEV or MCEV would be lower

# The Realpolitik of Using MCEV in Asia

## Issues with TEV in Chinese Taipei – International Benchmarking

- TEV has **disappeared** in some places:
  - Europe, where EV was invented
  - South Africa
- It seems to be **disappearing** from some places in Asia:
  - Japan
- It is still **widely used** in some places:
  - China – but there the reasons for holding back from EEV or MCEV do not (in general) include concern over the result
  - Australia – but there is evidence that the result would not be much different EEV or MCEV

# The Realpolitik of Using MCEV in Asia

## Issues with TEV in Chinese Taipei – Local Benchmarking

- IFRS4 Phase 2
  - Government has stated a desire to “align with international reporting standards”
  - Impact study being carried out now
- Solvency capital
  - Government has stated a desire to “align with international reporting standards”
  - AA cash flow testing now stochastic, being enhanced every year
- EV
  - No changes

# The Realpolitik of Using MCEV in Asia

## Issues with TEV in Chinese Taipei – Objectivity

- Written standards
  - CFO Forum standards only started with EEV
  - No local standards
  - Reliance on independent sign-off – but independent reviewers desire objective standards too
- Disclosures
  - Current public disclosures vary widely
  - CFO Forum disclosures very comprehensive

# The Realpolitik of Using MCEV in Asia

## Issues with TEV in Chinese Taipei – Other

- Practicality
  - Stochastic methods now standard in Chinese Taipei
- Understandability
  - Some complaints about MCEV
  - Not so many about EEV
- Are analysts & investors really asking for this?
  - They don't talk about it much
  - Market cap situation => EV adjustments are downwards
  - High awareness of implied VIF figures in transactions
  - Overseas analysts & investors do ask overseas companies

# The Realpolitik of Using MCEV in Asia

## Options: Overview

### Methodology

Status Quo  
TEV

Progress  
EEV

International Best Practice  
MCEV

### Written Standards & Disclosures

Status Quo  
None / Elementary

Progress  
Local Guidance

International Best Practice  
CFO Forum-style

### Timing

Status Quo  
Wait until someone asks

Progress  
Investigate then judge

International Best Practice  
Do it ASAP

# The Realpolitik of Using MCEV in Asia

## Methodology: Keep the Status Quo

Methodology



- There is a **credibility risk** in keeping the status quo
  - Results not consistent with market observables
  - Objectivity of assumptions can be challenged
  - Benchmarking internationally becoming more difficult
  - Benchmarking locally becoming more difficult
  - Reliance on independent sign-off could become restricted

# The Realpolitik of Using MCEV in Asia

## Methodology: Going to MCEV

### Methodology



- Results would be much more dependent on non-controllable risk
  - Without a high “liquidity premium”, the VIF would be very negative
  - Even with a high “liquidity premium”, the VIF will be very volatile
- In the short term, unlikely to be much pressure to move to full MCEV
  - Full MCEV is still evolving anyway
  - Pressure to improve on TEV is not immediate, so there is time to move to MCEV later if necessary

# The Realpolitik of Using MCEV in Asia

Methodology: Something in Between

Methodology

Status Quo  
TEV

Progress  
EEV

International Best Practice  
MCEV



- Only viable medium-term option
- Helpful flexibility within EEV approaches

# The Realpolitik of Using MCEV in Asia

## Written Standards & Disclosures

### Status Quo None / Elementary



- There are **various risks** in keeping the status quo
  - Little disclosure could lead to questioning of credibility (IFRS4 will have more?)
  - Pressure from regulator
  - Pressure from independent reviewers
  - Benchmarking internationally shows differences

### Progress Local Guidance



- Standards should be developed locally, with reference to international best practice (eg IFRS4, RBC)
- Requires a working group to draft, then energy to discuss and agree

### International Best Practice CFO Forum-style



- This is a **good longer-term aspiration**
- Standards should match chosen method; if EEV, can refer to first draft CFO Forum principles
- Factual disclosures should follow best practice
- Disclosures around results require understanding, and understanding can require time

# The Realpolitik of Using MCEV in Asia

## Timing



- It is not clear when EEV will be demanded, but...
- ...sooner or later China will move to EEV or MCEV
  - At the latest when they start buying European entities
  - The impact on their EV will be less than on Chinese Taipei EVs, so they can implement more quickly
- In Chinese Taipei:
  - Question of moving to EEV (or MCEV) is “when” not “if”
  - **Implementation** date = earlier of:
    - Demand from regulator, analysts or independent reviewers
    - When companies are confident about the results
  - **Investigation** start date = as soon as possible

# The Realpolitik of Using MCEV in Asia

## Our Proposal for Chinese Taipei

### Methodology

Status Quo  
TEV

Progress  
EEV

International Best Practice  
MCEV

### Written Standards & Disclosures

Status Quo  
None / Elementary

Progress  
Local Guidance

International Best Practice  
CFO Forum-style

### Timing

Status Quo  
Wait until someone asks

Progress  
Investigate then judge

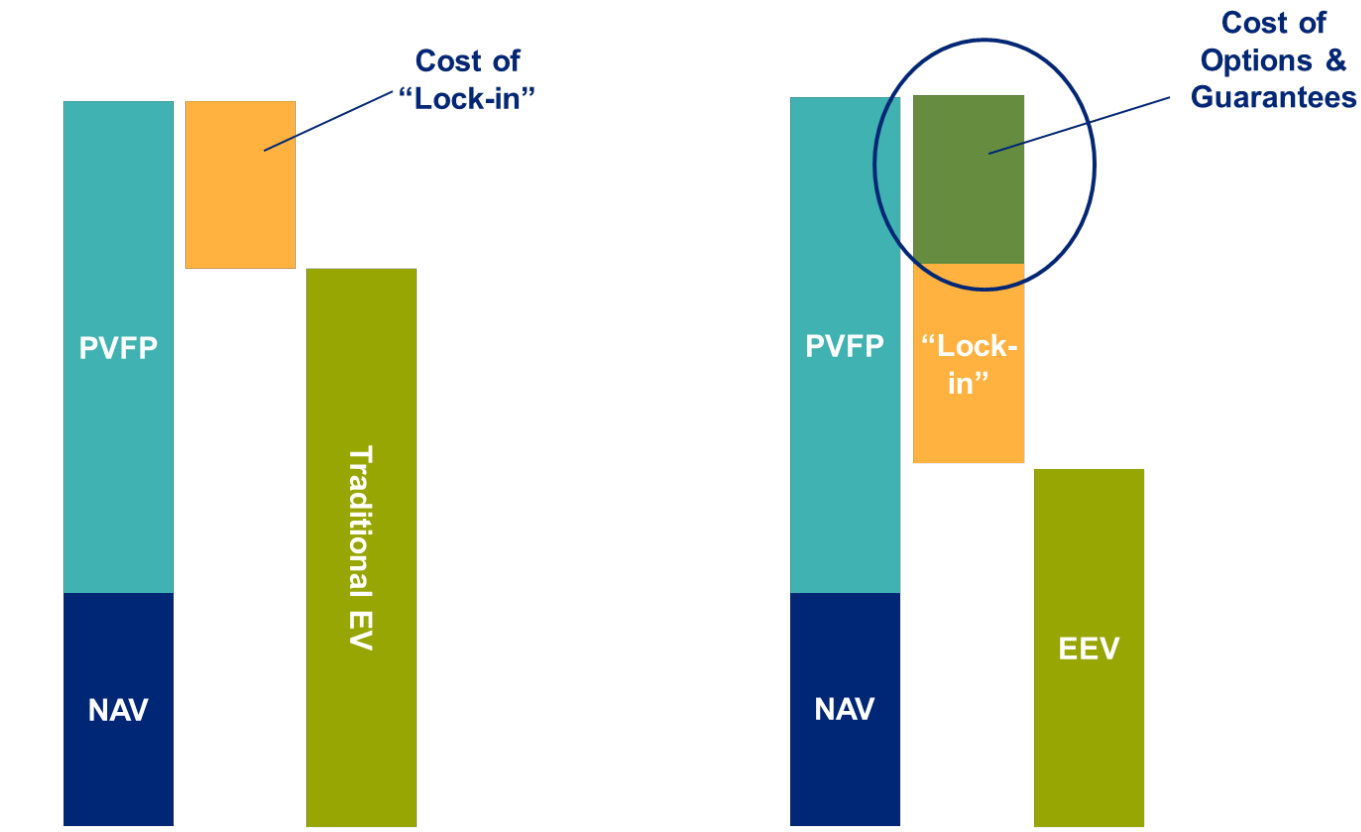
International Best Practice  
Do it ASAP

Working Group should start as soon as possible

# The Realpolitik of Using MCEV in Asia

## Our Proposal for Chinese Taipei – Methodology

- EEV following the original CFO Forum principles
  - Top-down RDR is fine:  $RDR = \text{risk-free} + 2.5\%$  (?)
  - “Direct” approach but only for main portfolios



# The Realpolitik of Using MCEV in Asia

## Our Proposal for Chinese Taipei – Methodology: EEV

Cash Flows	Economic Assmpns	Non-Econ Assmpns	TVOG	Discounting	Cost of Capital
<ul style="list-style-type: none"> <li>• Deterministic approach for products with no guarantees</li> <li>• Stochastic approach for TVFOG of products with embedded future options &amp; guarantees</li> </ul>	<p><u>Deterministic</u></p> <ul style="list-style-type: none"> <li>• Same as TEV</li> </ul> <p><u>Stochastic</u></p> <ul style="list-style-type: none"> <li>• Simulations based on real world assmpns</li> <li>• Must be internally consistent but <b>not necessary market consistent</b></li> </ul>	<p><u>Deterministic</u></p> <ul style="list-style-type: none"> <li>• Usually as per TEV</li> </ul> <p><u>Stochastic</u></p> <ul style="list-style-type: none"> <li>• Dynamic lapse and take up assmpns allow for p/holder behaviour for products with gtees</li> <li>• May also allow for dynamic mangment behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• Stochastic valuation of time value of options &amp; guarantees captures:             <ul style="list-style-type: none"> <li>– Mangmt behaviour</li> <li>– P/holder behaviour</li> <li>– Cost of s/holder capital injections</li> </ul> </li> <li>• <b>Assumptions used not necessarily market consistent</b></li> </ul>	<ul style="list-style-type: none"> <li>• Similar to TEV, constant RDR set equal to risk free rate plus a risk margin</li> <li>• One exception is that the risk margin no longer contains an allowance for the cost of options &amp; guarantees, as there is an explicit allowance for those in the calculation</li> </ul>	<ul style="list-style-type: none"> <li>• Required capital needs to consider both             <ul style="list-style-type: none"> <li>– Amount required by regulators, and</li> <li>– Amount required by internal measures</li> </ul> </li> <li>• Cost of lock-in defined as per TEV</li> </ul>

# The Realpolitik of Using MCEV in Asia

## Our Proposal for Chinese Taipei – Investment Return & Capital

- Investment return assumptions
  - Use the stochastic cash flow testing assumptions
    - Brings in objectivity, easier disclosure
  - Live with the fact that risk margins are capitalised (riskier assets => higher EV)
    - This was part of the original EEV approaches, so can be explained as part of “Chinese Taipei’s transition”
- Allowance for risk
  - Continue to use 200% RBC
    - Objective, easier disclosure
  - Only consistent with CFO Forum disclosures if companies state that “amount required by internal measures” = 200% RBC

# The Realpolitik of Using MCEV in Asia

## Potential Impact on Results

Product	Move from TEV to EEV
Compulsory Dividend	↓
Traditional Non Par	↑
Traditional True Par	↓
Interest Sensitive Annuities	↓
Universal Life	↓
Unit Linked	↑
Variable Annuities	?
Riders	↑
<b>TOTAL VIF</b>	↓

# The Realpolitik of Using MCEV in Asia

## Practical Approach

1. Set up an EV Working Group (two streams: methodology & disclosures) on an industry-only basis (but with reviewers)
2. Start with the original CFO Forum EEV methodology, on a top-down, partially-indirect basis
3. Use the stochastic cash-flow testing assumptions and  $RDR = \text{risk-free} + 2.5\%$ , and investigate the results
4. Understand the results, focus on drivers and main influencers on the results – go bottom-up, fully direct?
5. Finalise a medium-term approach with transition plan (over  $n$  years, where  $n$  is 3+)

# The Realpolitik of Using MCEV in Asia

Elsewhere in Asia

# The Realpolitik of Using MCEV in Asia



## About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see [www.deloitte.com/cn/en/about](http://www.deloitte.com/cn/en/about) for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and deep local expertise to help clients succeed wherever they operate. Deloitte's approximately 170,000 professionals are committed to becoming the standard of excellence.

## About Deloitte China

In China, services are provided by Deloitte Touche Tohmatsu and Deloitte Touche Tohmatsu CPA Limited and their subsidiaries and affiliates. Deloitte Touche Tohmatsu and Deloitte Touche Tohmatsu CPA Limited are, together, a member firm of Deloitte Touche Tohmatsu Limited.

Deloitte China is one of the leading professional services providers in the Chinese Mainland, Hong Kong SAR and Macau SAR. We have over 8,000 people in 15 offices in Beijing, Chongqing, Dalian, Guangzhou, Hangzhou, Hong Kong, Jinan, Macau, Nanjing, Shanghai, Shenzhen, Suzhou, Tianjin, Wuhan and Xiamen.

As early as 1917, we opened an office in Shanghai. Backed by our global network, we deliver a full range of audit, tax, consulting and financial advisory services to national, multinational and growth enterprise clients in China.

We have considerable experience in China and have been a significant contributor to the development of China's accounting standards, taxation system and local professional accountants. We also provide services to around one-third of all companies listed on the Stock Exchange of Hong Kong.

This publication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively the "Deloitte Network") is, by means of this publication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this publication.



Joint IACA, IAAHS and PBSS Colloquium in Hong Kong

[www.actuaries.org/HongKong2012/](http://www.actuaries.org/HongKong2012/)