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Managing Director, Towers Watson, Hong Kong &
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February 2010





#### Mark Saunders, FIA, FIAI, FSA, FSAS, FSAT

# Managing Director, Insurance Sector, Asia Pacific and Asia Pacific Risk Consulting Practice Leader & Managing Director, Towers Watson, Hong Kong

- Working in the insurance industry since the 1980s and in Asia since 1989, joining Towers Watson (then Tillinghast) in 1997
- Before Towers Watson he was Asian Regional CEO and Executive Director Board Member of international life insurance operations of a UK-parented insurer including their joint venture in Korea
- Lead advisor of more than 200 actuarial appraisal assessments of economic value of Asian insurers covering
  every significant insurance market and widely regarded as a leading practitioner in economic value
  determination, Mergers & Acquisitions and IPOs, of insurers in Asia having been involved in nearly every
  major M&A deal and capital raising exercise of insurers in Asia since the late 1990s.
- Leader in Actuarial Expert Opinions in Prospectuses for IPOs and Offering Documents of high profile deals of leading (including state-owned) Asian insurance businesses
  - Actuarial advisor for China Life, Korea Life, Vietnam Life, Great Eastern, China Pacific, AIA, AXA...
- Appointed Actuary for ten insurers in Hong Kong, Singapore and Vietnam
- Expert Witness testimonials and Independent Actuary for High Court sanctioned business transfers
- Memberships of numerous insurance-related, actuarial, regulatory and professional committees:
  - Regulatory Committees such as Insurance Advisory Committee, the statutory body that oversees the Insurance Authority in HK and the SFC Committee on ILAS & PRFs
  - CIRC and IRDA/IAI committees
  - Professional actuarial committees
- He holds both a BSc (Honours) degree and Post Graduate Certificate of Education in Mathematics from Manchester University, UK. And is a Fellow of six professional actuarial bodies.

### Agenda ... Some Food for Thought

- 1. Impacts of recent events and demonstrating that M&A is hot in Asia...
- Challenges in M&A. Bigger picture.
- 3. Actuaries, financials and price...
- 4. Some insights into top-down pricing considerations and metrics...
- 5. Useful metrics and benchmarks?
- 6. Final food for thought...

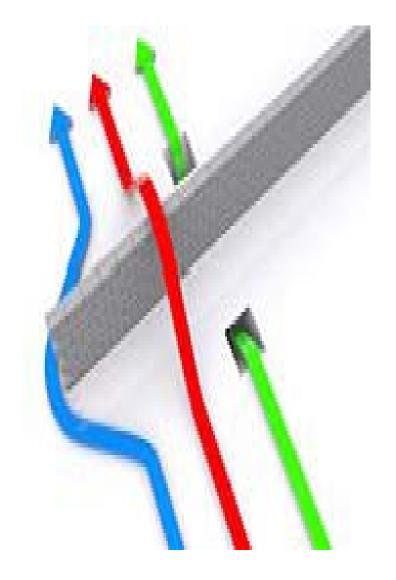
Risk and Opportunity in action...

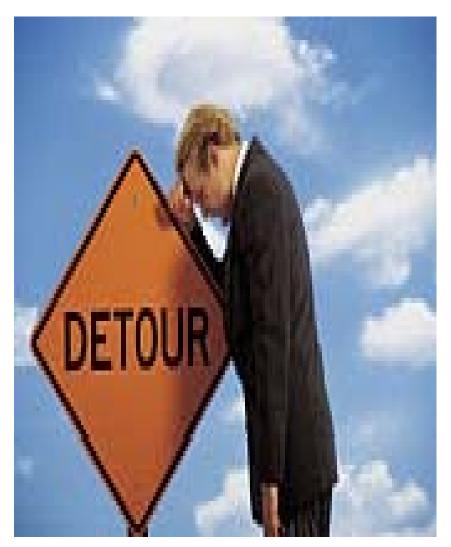




1 in 200 = ?







- "Three European insurers exit Taiwan" 1.
- "Prudential pays S\$428 million for UOB Life" 2.
- "AXA to double the size of it's Asian business" 3.
- Impacts: M&A Some media headlines ... So not exhaustive nor all correct
- "ING to dispose of its insurance unit and Korea is the jewel in the Asian crown" 4.
- "MaxNYL sheds 4% pie to Axis Bank"
- "AIA to IPO in Hong Kong"
- "Met to acquire ALICo for US\$15.5 billion" 7.
- Chronological order through 2010.
- "AIG to sell Taiwanese operation Nanshan for US\$2.15billion" 8.
- "Prudential to pay US\$35.5 billion for AIA"
- "Prudential to pay US\$1 billion in advisor's fees" 10.
- "New York Life to exit China" 11.
- "Prudential offer reduced bid of US\$30.4billion for AIA but AIG reject it" 12.
- "Waterland agree to acquire MetLife's Taiwan unit for NT\$3.5billion" 13.
- "AIA IPO back on" 14.
- "Chinese consortium to buy AIA" 15.
- "Taiwanese regulators prohibit Nanshan US\$2.15billion sale" 16.
- "AIA to raise US\$20billion in first IPO tranche" 17.
- "Prudential Financial to pay US\$4.8billion for AIG's Japanese units" 18.
- "ACE said to be in talks for New York Life's Asian units" 19.
- "ACE buy NYL's HK and Korean businesses for around US\$425 million" 20.
- "AIA up 17% on first day of trading" 21.
- "Mass Mutual to sell stake in Taiwan JV with Mercuries for T\$3billion" 22.
- "Aviva to exit Taiwan"

"Tower to agree to a A\$1.2billion takeover from Dai-ichi" 24.

Also IPOs in Japan and Korea

#### Impacts: M&A -- Key landscape changes:

- The relatively high number of recently completed deals and listings provides more <u>transaction and valuation data points</u> for Asian insurance businesses than ever before
- The AIA listing provides more <u>comprehensive disclosure and details</u> relevant for Asian businesses than have been available in the public domain ever before and will likely continue to do so going forward
- All future transactions and assessments of economic value in Asia will be <u>compared against</u> these to some degree or another
- As an insurance business influencer you must gain as much <u>intimate</u> <u>knowledge</u> of the assessments of value as possible

Must do: Study the AIA Prospectus and analyst presentations

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### Key challenges for M&A deals in achieving success

| Globa | al Deals                                 | Negative |  |  |  |  |
|-------|--|----------|--|--|--|--|
| Rank  | Top 10 challenges in achieving synergies |          |  |  |  |  |
| 1     | Incompatible cultures                    | 5.60     |  |  |  |  |
| 2     | Inability to manage target               | 5.39     |  |  |  |  |
| 3     | Unable to implement change               | 5.34     |  |  |  |  |
| 4     | Synergy non-existent or overestimated    | 5.22     |  |  |  |  |
| 5     | Did not anticipate foreseeable events    | 5.14     |  |  |  |  |
| 6     | Clash of management styles/egos          | 5.11     |  |  |  |  |
| 7     | Acquirer paid too much                   | 5.00     |  |  |  |  |
| 8     | Acquired firm too unhealthy              | 4.58     |  |  |  |  |
| 9     | Need to spin off or liquidate too much   | 4.05     |  |  |  |  |
| 10    | Incompatible marketing systems           | 4.01     |  |  |  |  |

So execution risk is high. Note the issue about price is in 7<sup>th</sup> position. And poor financial state is in 8<sup>th</sup>. These are often the areas focused on in due diligence but clearly there are even more pertinent factors to consider than financials of the deal

Note: Survey of Forbes 500 CFOs Assessed on a scale of 1 to 7, where 7 is high.

### Agenda ... Some Food for Thought

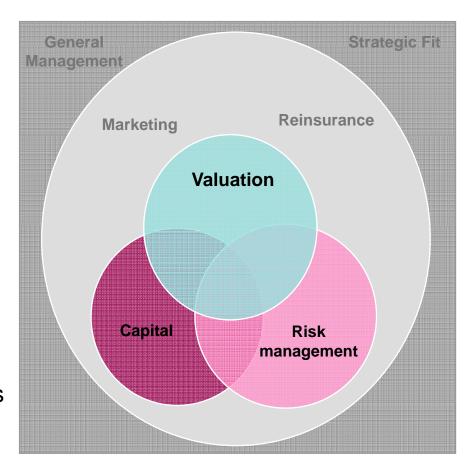
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OK so execution and people issues are massive but, for now, let's get back to the financials...

### Actuarial & financial analysis for M&A

- Financial valuation
- Reserve adequacy
- Projected earnings
- Product profitability analysis
- Reinsurance evaluation and optimisation
- Capital management
- Asset-liability analysis and options
- Supporting synergy analysis
- Regulatory analysis and approval
- Representations and warranties
- Risk mitigation strategies
- Distribution capabilities
- Market analysis
- Underwriting & claims handling reviews
- Management meetings
- Deal structuring



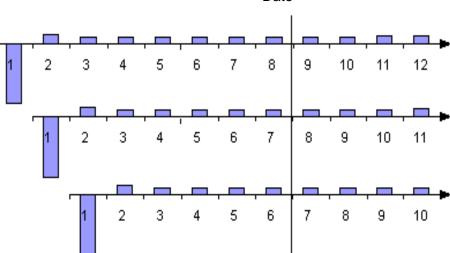
Much more than just number crunching!!

### So achieving a successful M&A is easier to get wrong than get right... There is clearly strategic and execution risk ...

- ... and all can be exacerbated by not getting the price of the deal right... so let's focus on a key component of M&A in this presentation;
  - The PRICE... and so the deal pricing risk...
- What is the right price?...
  - Assess the risk/opportunity and the earnings stream to be realised
  - Determine the commensurate right price
- Actuaries play a critical and vital role in helping <u>inform</u> parties in pricing of the deal
  - Present different perspectives/scenarios/sensitivity tests/"what ifs" supported by extensive experience ...
  - Help understanding of the drivers of value
- But please don't bring credibility into question by just producing numbers based on assumptions, approach or methodology that no-one (including you!) believes in...
  - "Here are the results of some calculations based on a methodology and set of assumptions that may or may not be correct but that's all we're doing for you...good luck!?!"
  - This is a disappointing practice and reflects badly on the actuaries involved and our profession
    - It reduces the importance of actuaries and exacerbates the negative perception of just being technical calculation machines who don't really understand the business …

### Complex and extensive analysis and calculations but essentially the basis of value being determined is: "Present Value of Future Profits"

- 1. Best estimates of projected future cashflows
- 2. Determination of earnings distributable to shareholders
- 3. Discounted at an appropriate risk discount rate



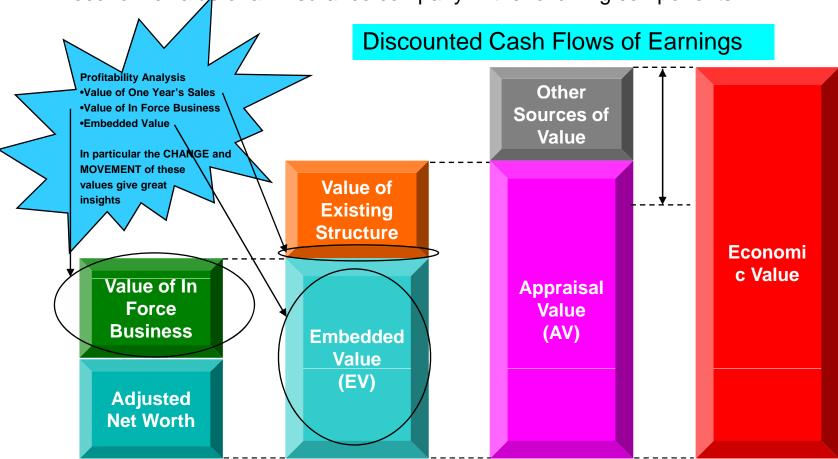
Valuation

Date

- An issue in India ??? ... should one use MCEV or TEV or ???
  - To successfully assess the economic value of a life insurance business one needs to consider an array of metrics and KPIs which include short term and long term metrics
    - Which is your headline basis depends on the way your company runs it's business and the market level of acceptance, practice and understanding
    - Fact is that leading companies who might only show TEV gain comfort from MCEV techniques especially as that's what international investors expect

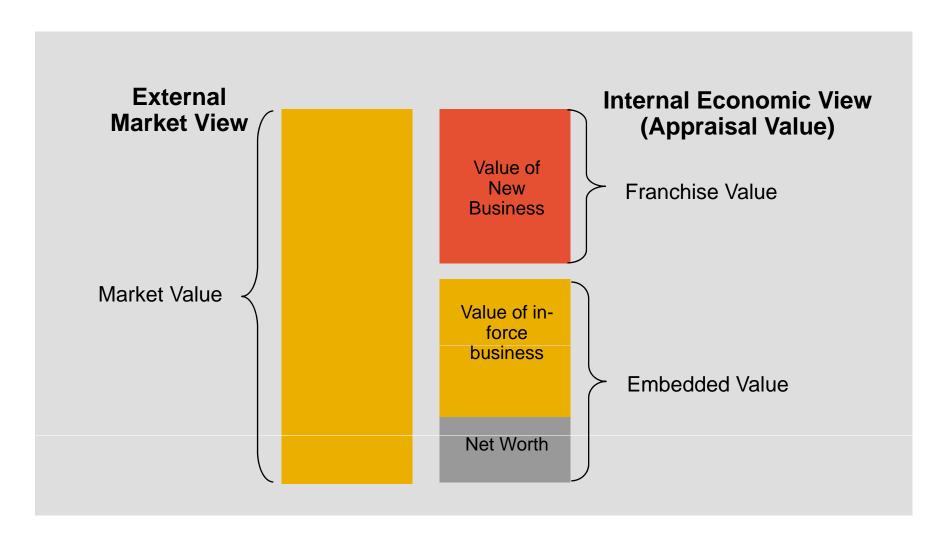
### **Components of a traditional assessment of Economic Value**

A traditional actuarial appraisal approach valuation typically develops the economic value of an insurance company in the following components:

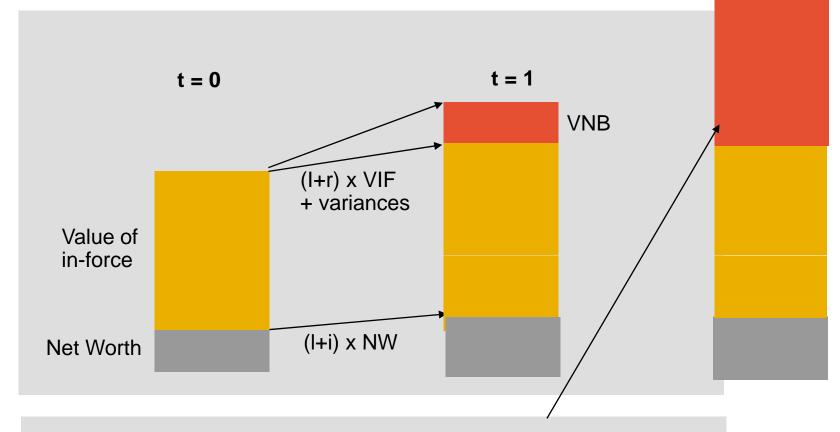


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### Market value versus appraisal value



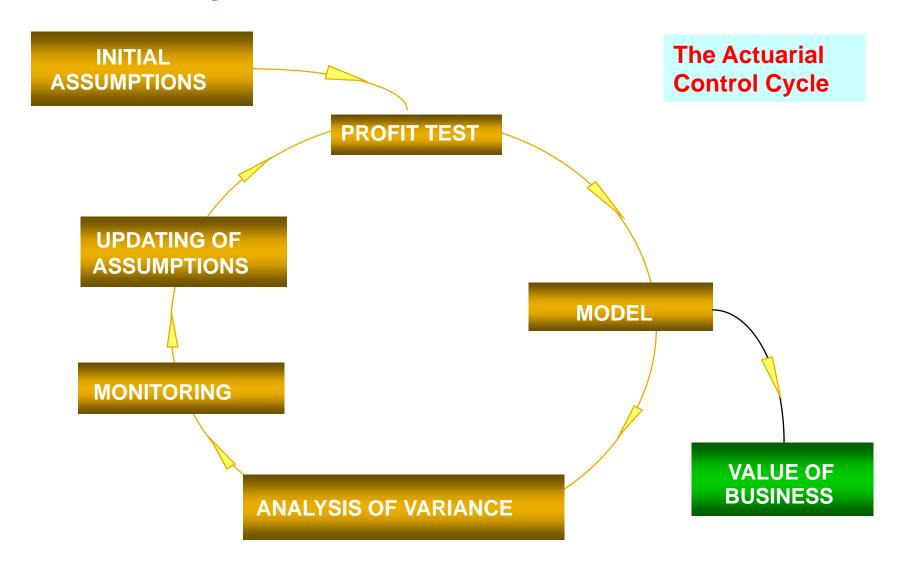
#### **Movement in EV**



Simplistic representation of AV = EV + NB multiple x VNB

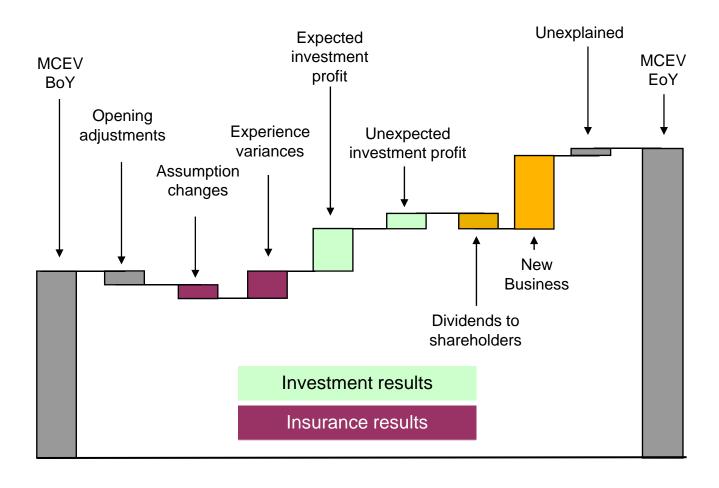
But most insights can be gained by detailed analysis of movement of EV

### **The Control Cycle**



### EV analysis of movement is the key to effective performance monitoring

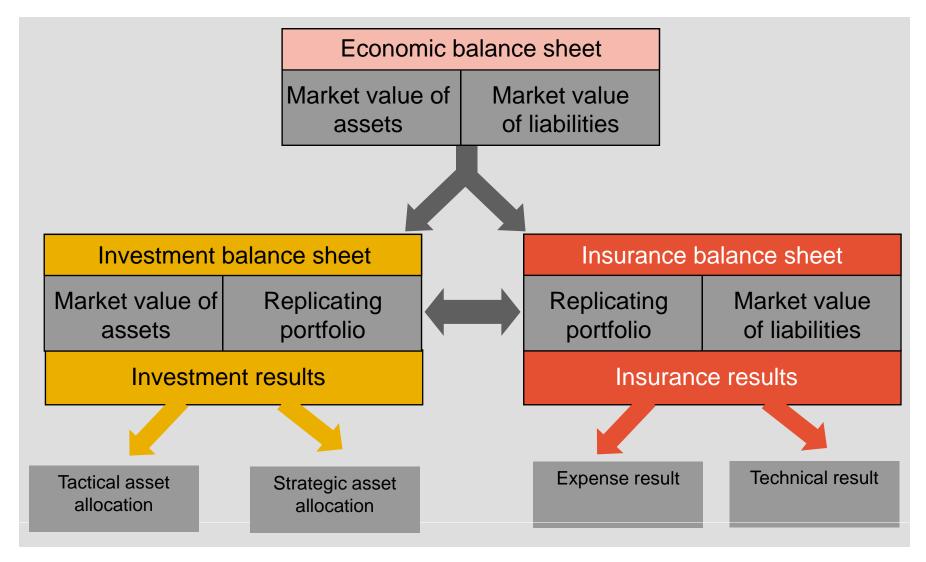
#### **Analysis of Movement in MCEV**



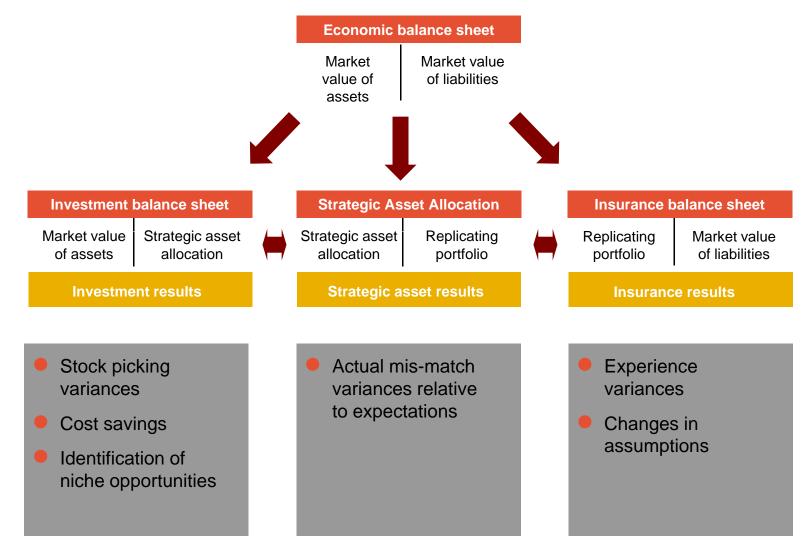
### **Presentation of MCEV analysis of earnings**

|  | Earnings on MCEV analysis |                     |     |      |
|--|---------------------------|---------------------|-----|------|
|  | Free<br>Surplus           | Required<br>Capital | VIF | MCEV |
| Opening MCEV   |                           |                     |     |      |
| Opening adjustments  |                           |                     |     |      |
| Adjusted opening MCEV  |                           |                     |     |      |
| New business contribution  |                           |                     |     |      |
| Existing business contribution (reference rate)                      |                           |                     |     |      |
| Existing business contribution (in excess of <i>reference rate</i> ) |                           |                     |     |      |
| Transfers from VIF and <i>required capital</i> to free surplus       |                           |                     |     |      |
| Experience variances   |                           |                     |     |      |
| Assumptions changes  |                           |                     |     |      |
| Other operating variance   |                           |                     |     |      |
| Operating MCEV earnings  |                           |                     |     |      |
| Economic variances   |                           |                     |     |      |
| Other non operating variance   |                           |                     |     |      |
| Total MCEV earnings  |                           |                     |     |      |
| Closing Adjustments  |                           |                     |     |      |
| Closing MCEV   |                           |                     |     |      |

### MCEV framework for understanding and managing risk



## Equivalently but splitting out more explicitly strategic and tactical investment results...To measure performance, insurers need to understand insurance and investment results



### Agenda ... Some Food for Thought

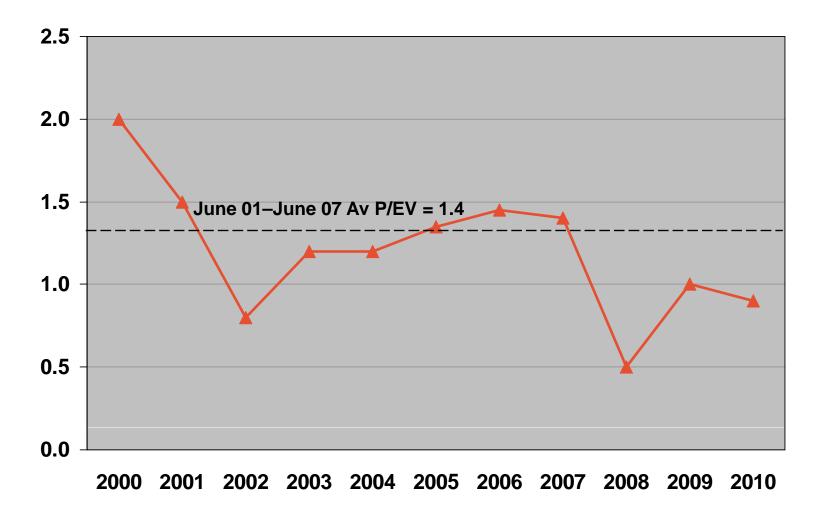
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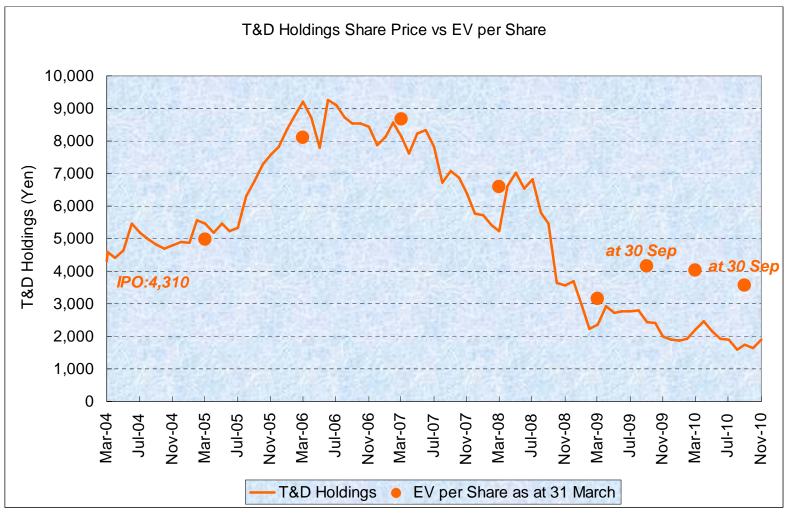
### Common valuation metrics for life insurers -- the search for the simple "silver bullet"...?

| Primary        | Valuation metric     | Supplementary |
|----------------|----------------------|---------------|
| IFRS P/E       | Price/earnings ratio | P/EV earnings |
|                |                      |               |
| P/ IFRS NAV    | Price/book           | P/EV          |
|                |                      |               |
| Dividend yield | Yields               | -             |
| Earnings yield |                      |               |
| RoE            | Return on equity     | RoEV          |
|                |                      |               |

### **Price/EV – European Life Companies**

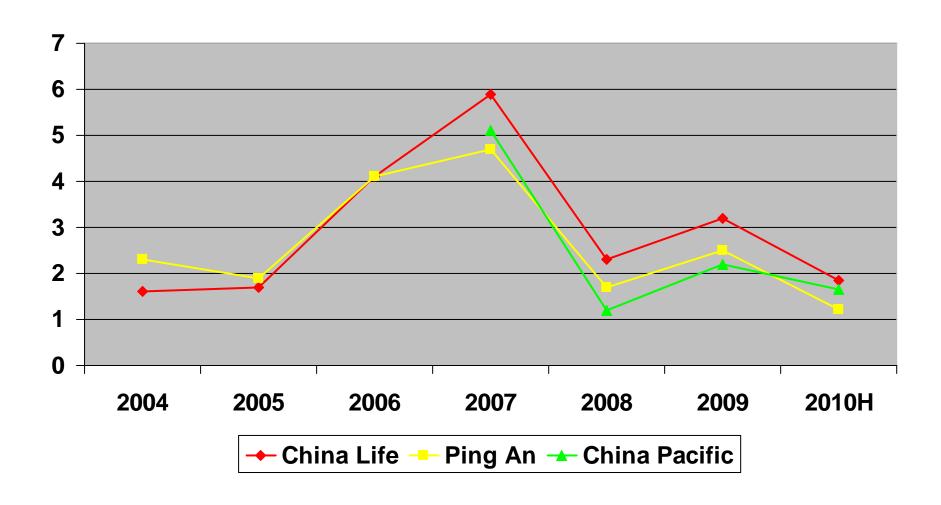


### **T&D Holdings Share Price since April 1, 2004**

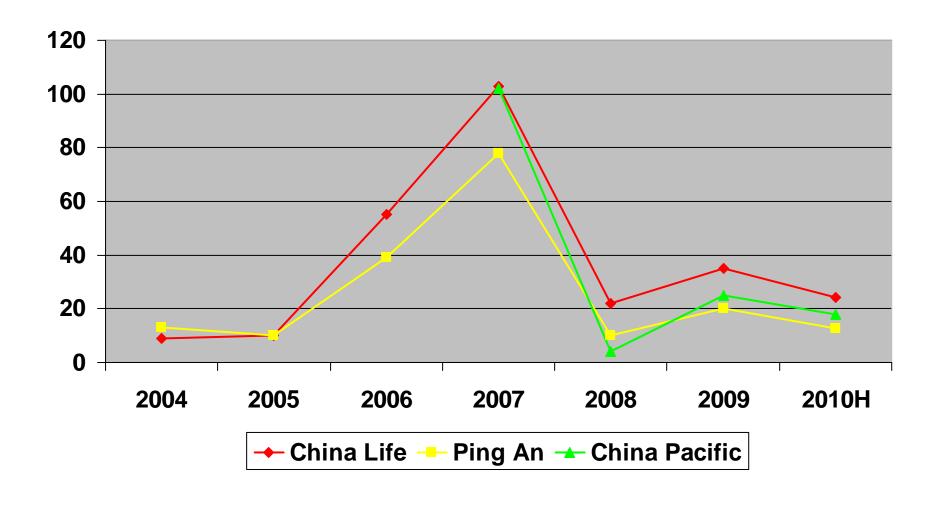


Book value per share of non-covered business of T&D Holdings included in the EV per share.

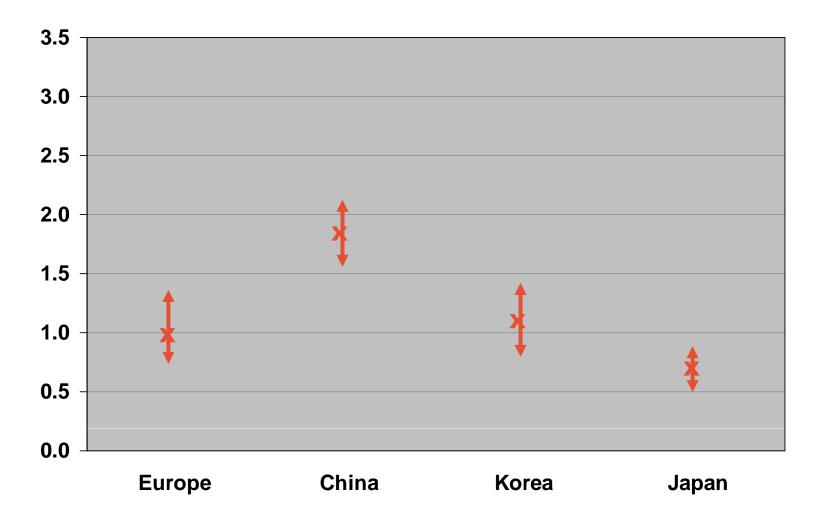
### **Price/EV for major Chinese Life Companies**



### Implied NB multiples for major Chinese Life Companies



### Price/EV – Europe and Asia – mid 2010



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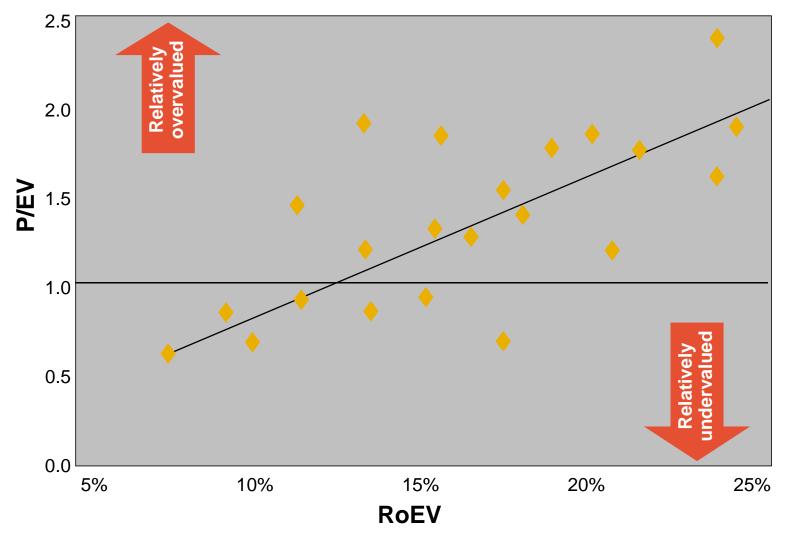
### Current ranking ... which metric gives you the best insight to market price?

|               | Assets | Premiums | EV | VOYS | Mkt Cap |
|---------------|--------|----------|----|------|---------|
| China Life    | 2      | 1        | 1  | 1    | ?       |
| Dai-ichi Life | 1      | 2        | 2  | 2    | ?       |
| Samsung Life  | 3      | 3        | 4  | 3    | ?       |
| AIA           | 4      | 4        | 3  | 4    | ?       |

### **Current ranking... Hmmm...**

|               | Assets | Premiums | EV | VOYS | Mkt Cap |
|---------------|--------|----------|----|------|---------|
| China Life    | 2      | 1        | 1  | 1    | 1       |
| Dai-ichi Life | 1      | 2        | 2  | 2    | 4       |
| Samsung Life  | 3      | 3        | 4  | 3    | 3       |
| AIA           | 4      | 4        | 3  | 4    | 2       |

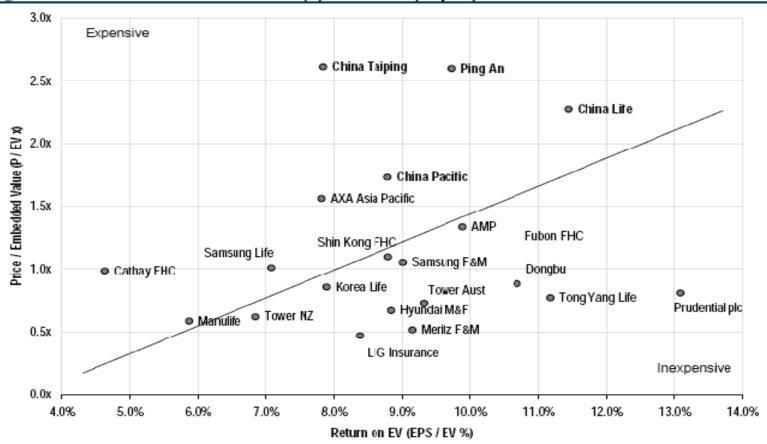
### Life Sector Regression: P/EV vs RoEV



But this is not as straightforward as it might appear. Polishing for consistency is no mean task!

### Turning financial results into share price: Example of insurance company valuation analysis

Figure 81: Price to embedded value (x) vs ROEV (% p.a.)



Source: Company data, Credit Suisse estimates

Source: Credit Suisse report dated 24 November 2010 CARE REQUIRED IN INTERPRETATION AND USE

### **M&A -- Benchmarks? Help or hinder?**

|                                      | AIA<br>Australia   | AIA<br>China   | AIA HK                       | AIA<br>Indonesia<br>(US\$<br>denominated) | AIA<br>Indonesia<br>(Rupiahs<br>denominated) | AIA<br>Korea   | AIA<br>Malaysia |
|--------------------------------------|--------------------|----------------|------------------------------|---|--|----------------|-----------------|
| Risk discount rate                   | 9.00%              | 10.00%         | 8.00%                        | 12.50%                                    | 17.00%                                       | 10.00%         | 9.00%           |
| Expected long term rate of inflation | 2.50%              | 2.00%          | 2.00%                        | 6.00%                                     | 6.00%  | 3.50%          | 3.00%           |
| 10 year Government bond yield        | 5.75%              | 3.74%          | 3.83%                        | 6.92%                                     | 11.00%                                       | 5.16%          | 4.46%           |
|                                      | AIA New<br>Zealand | Philam<br>Life | AIA<br>Singapore<br>& Brunei | AIA Taiwan                                | AIA<br>Thailand                              | AIA<br>Vietnam |                 |
| Risk discount rate                   | 9.00%              | 14.00%         | 7.50%                        | 8.00%                                     | 10.00%                                       | 16.00%         | •               |
| Expected long term                   | /                  | 4.500/         | 0.000/                       | 4.000/                                    | 0.000/                                       | <b>5</b> 00/   | •               |
| rate of inflation                    | 2.00%              | 4.50%          | 2.00%                        | 1.00%                                     | 2.00%  | 5.0%           | _               |

Useful ... but beware ... Many moving parts, components, and considerations Any measure in isolation is dangerous...

In addition to what is here, what is not here?!?

**Source: Prudential Prospectus May 2010** 

### **M&A -- Benchmarks? Help or hinder?**

|                                      | AIA<br>Australia   | AIA<br>China   | AIA HK                       | AIA<br>Indonesia<br>(US\$<br>denominated) | AIA<br>Indonesia<br>(Rupiah<br>denominated) | AIA<br>Korea   | AIA<br>Malaysia |
|--------------------------------------|--------------------|----------------|------------------------------|---|---|----------------|-----------------|
| Risk discount rate                   | 8.75%              | 10.00%         | 8.00%                        | 12.50%                                    | 17.00%                                      | 11.00%         | 9.00%           |
| Expected long term rate of inflation | 3.25%              | 2.00%          | 2.00%                        | 6.00%                                     | 6.00%                                       | 3.50%          | 3.00%           |
| 10 year Government bond yield        | 5.75%              | 3.74%          | 3.83%                        |   | 8.94%                                       | 5.16%          | 4.46%           |
|                                      | AIA New<br>Zealand | Philam<br>Life | AIA<br>Singapore<br>& Brunei | AIA Taiwan                                | AIA<br>Thailand                             | AIA<br>Vietnam |                 |
| Risk discount rate                   | 9.00%              | 14.00%         | 7.75%                        | 8.00%                                     | 10.00%                                      | 16.00%         | •               |
| Expected long term rate of inflation | 2.00%              | 4.50%          | 2.00%                        | 1.00%                                     | 2.00%                                       | 5.0%           | _               |
| 10 year Government bond yield        | 6.30%              | 7.47%          | 2.93%                        | 1.73%                                     | 4.16%                                       | 9.25%          | -               |

Useful ... but beware ... Many moving parts, components, and considerations Any measure in isolation is dangerous...

In addition to what is here, what is not here?!?

Source: AIA Prospectus 29 October 2010

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#### So need Top Down as well as Bottom Up assessments...

- 1. Do the bottom up determination
  - Together with <u>range</u> of perspectives/scenarios/sensitivities/'what ifs"...
  - And detailed analysis of movement in values and sources of earnings
- 2. Apply deep knowledge and expertise from <u>all available benchmarks and comparatives</u>
  - Certainly don't use one measure or one aspect in isolation
  - Use an array and matrix of metrics in your assessment ... and support views
- 3. Don't lose sight of common sense and be aware of alternative perspectives
  - Eg. How much additional value needs to be created in order to justify the price?
    - Profits/synergies/expenses/improvements/effectiveness/distribution/products(mix)/
      ..."we'll do things better...." ...but don't forget the execution risk post acquisition...
    - "What growth in VOYS is required per annum compound over the next ten years to realise an IRR of x% in our investment in the franchise value?"
- Seasoned actuaries and practitioners are THE professionals best placed to determine and inform other parties about economic values of insurers...

And finally... We live in interesting and exciting times ... Take a fresh look ... Have an insatiable hunger for knowledge... Be better informed...

...GRASP THE OPPORTUNITY...

# Success and Fortune



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