

1st Saudi Insurance Forum

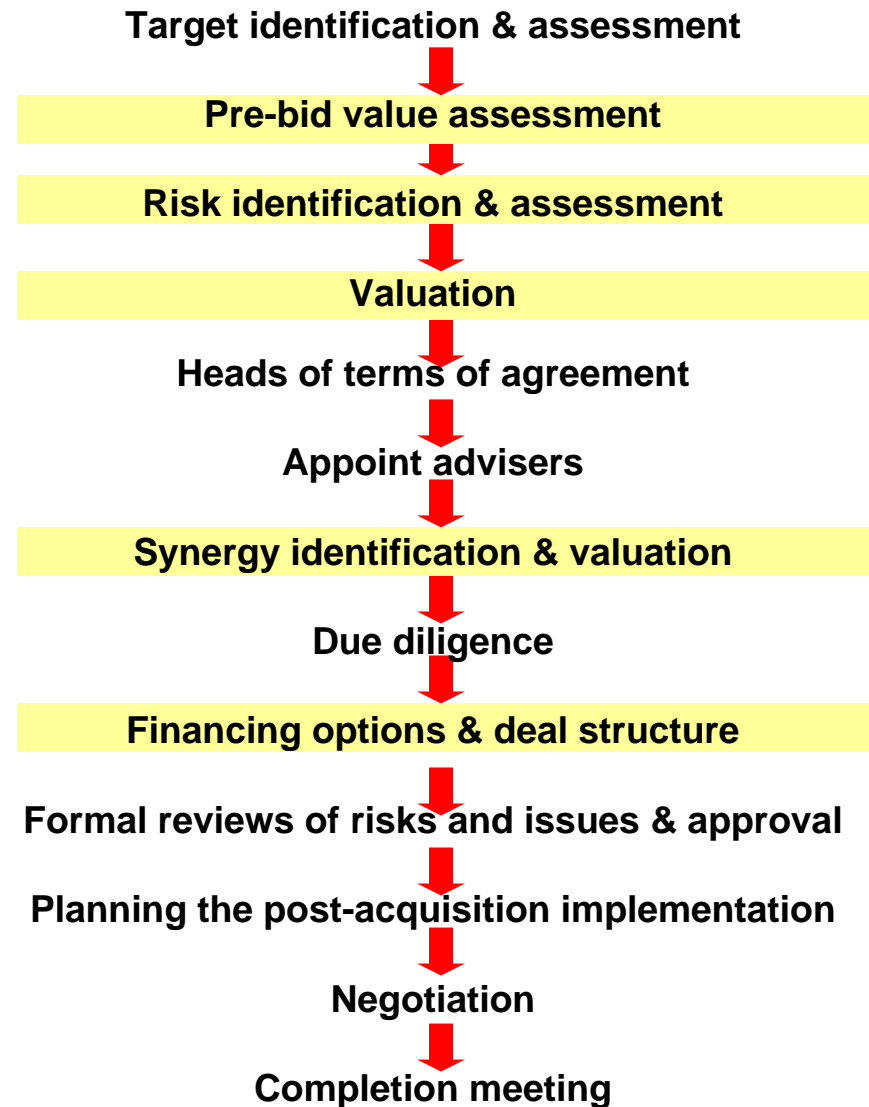
The Valuation of Insurers for Mergers & Acquisitions : An Actuarial Perspective

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Jeddah - 8 June 2004

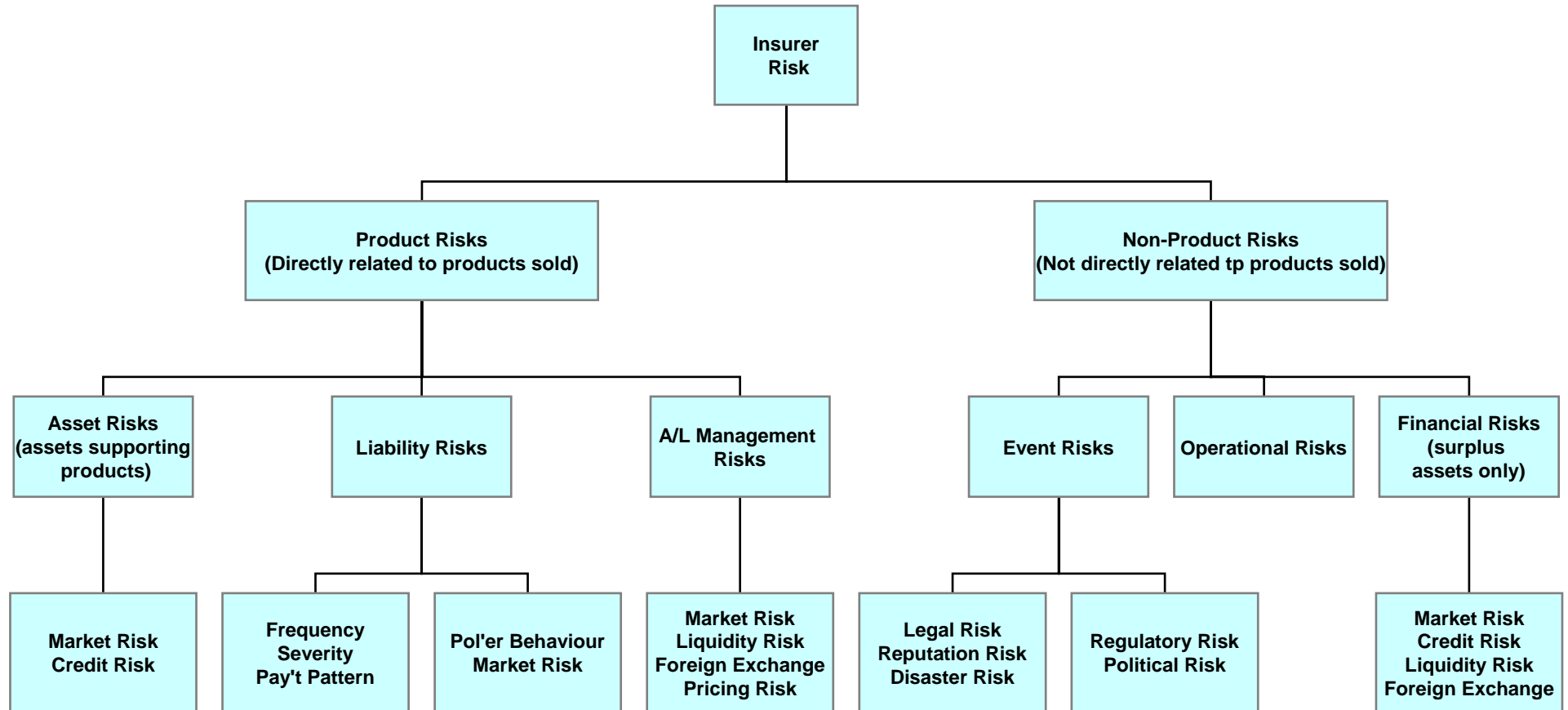
Agenda

- Stages of a transaction : the role of the valuation actuary
- Valuation Techniques
- Market Valuation Drivers
- Transaction Dynamics
- Conclusions

Stages of a Transaction : The role of the actuary



Areas of Insurance Risk

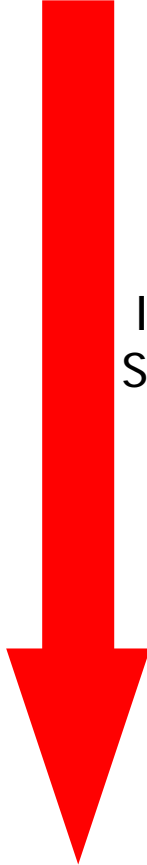


Some risks are particularly relevant in a M&A scenario...

Valuation Techniques

Components of Value

- Net Asset Value = Disclosed Shareholders' Funds
- Adjusted Net Asset Value or Embedded Value
 - Main adjustments:
 - Mark to market i.e. adjust for unrealized gains & unrealized losses
 - Eliminate goodwill
 - Add the value of the in-force book of business
- Sum-of-the-parts or Appraisal Value
 - = Present Value of future expected cash profits emerging from the insurance groups' operations including value of profits emerging from future new business



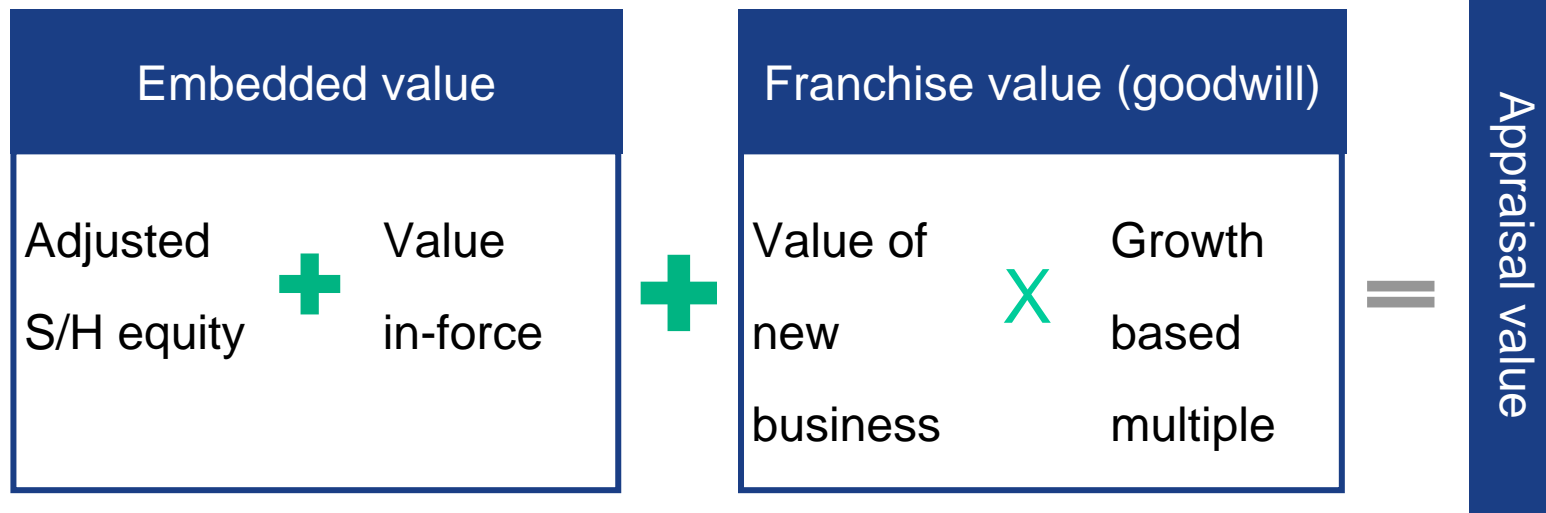
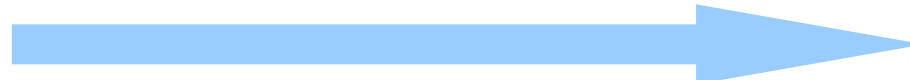
Increasing Subjectivity

Valuation Techniques

- Adjusted Net Asset Value (**Embedded Value**)
 - = Disclosed shareholders' funds
 - + unrealized gains (on shareholders' assets) not included in balance sheet (net of tax)
 - goodwill on balance sheet
 - other intangibles (incl. DAC)
 - + the present value of expected profits from the in-force book of business
- Sum-of-the-parts = Present Value of future expected cash profits emerging from the insurance groups' operations (**Appraisal Value**)

Relationship between Embedded Value & Appraisal Value

Increasing sensitivity to assumptions



Present Value of future expected cash profits expected to emerge from in-force business

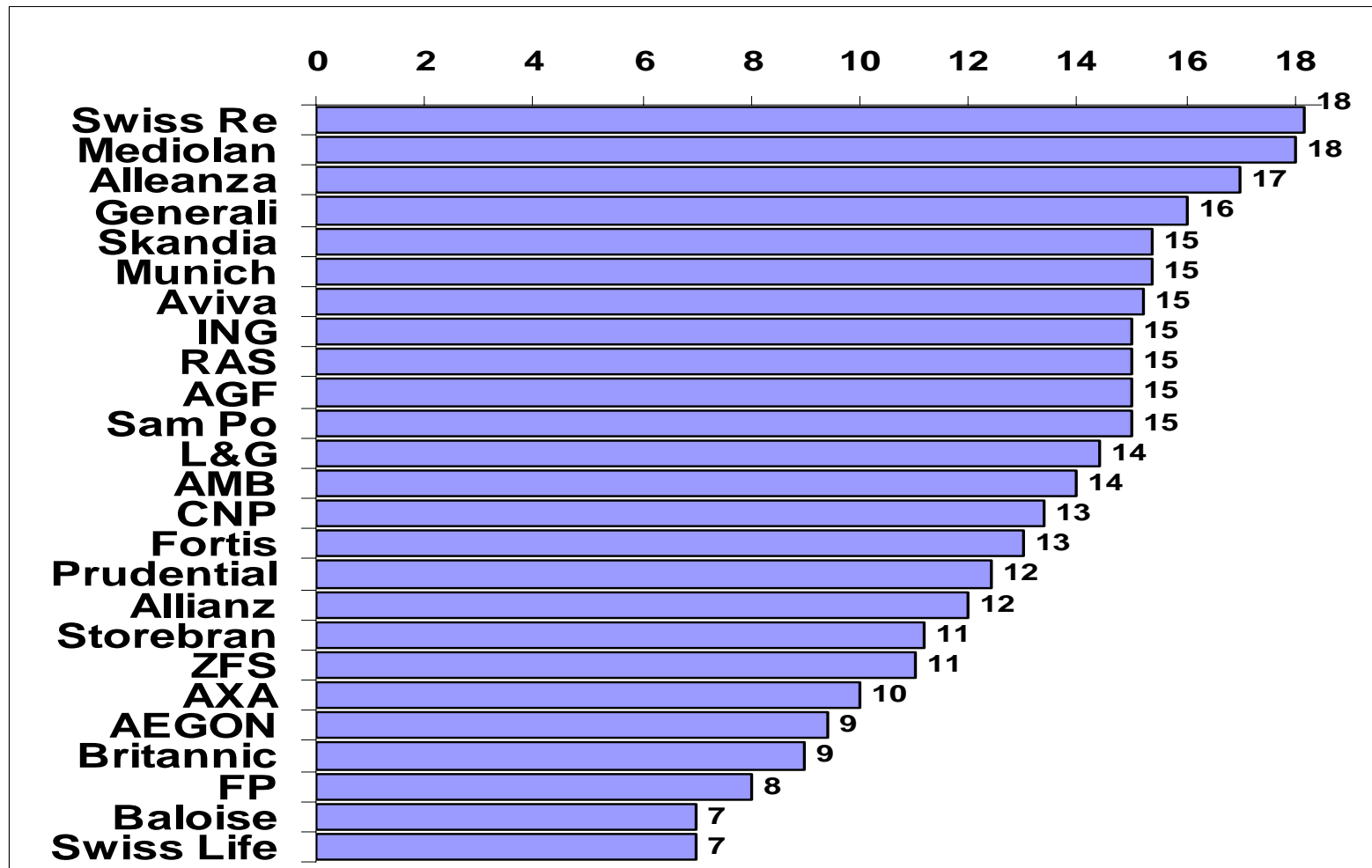
Multiple applied to value of 1 year's new business to get to value of all future new business

Value of new business to be written in the year following the valuation date

Value of In-force & Value of New Business Assumptions

- ◆ **Assumptions can be either passive or active**
 - Active assumptions move each time to reflect market conditions
 - Passive assumptions only adjusted for major and sustained changes in market conditions
 - **Assumptions must be consistent** eg higher nominal investment returns imply higher expense inflation rate
- ◆ **Important assumptions i.e. profit drivers, differ by type of contract**
 - For life business: investment returns key for savings contracts and mortality, expenses and persistency more important for term assurance policies
 - For non-life business: renewal rates, premium growth rates and underwriting profit margins are important for all classes of business. Investment return assumption particularly important for long-tailed business.
- ◆ **Risk discount rate** should incorporate risk margins that reflect factors such as size, spread, competitive position, track record etc similar to those that are taken into account in deriving the **financial strength rating** of a company
 - Higher risk discount rate normally used in assessing the franchise value (i.e. the value of future new business) reflecting the greater uncertainty associated with this profit stream versus the profit stream expected to emerge from existing business

New business profit multiples – Sep 2002 (Morgan Stanley)

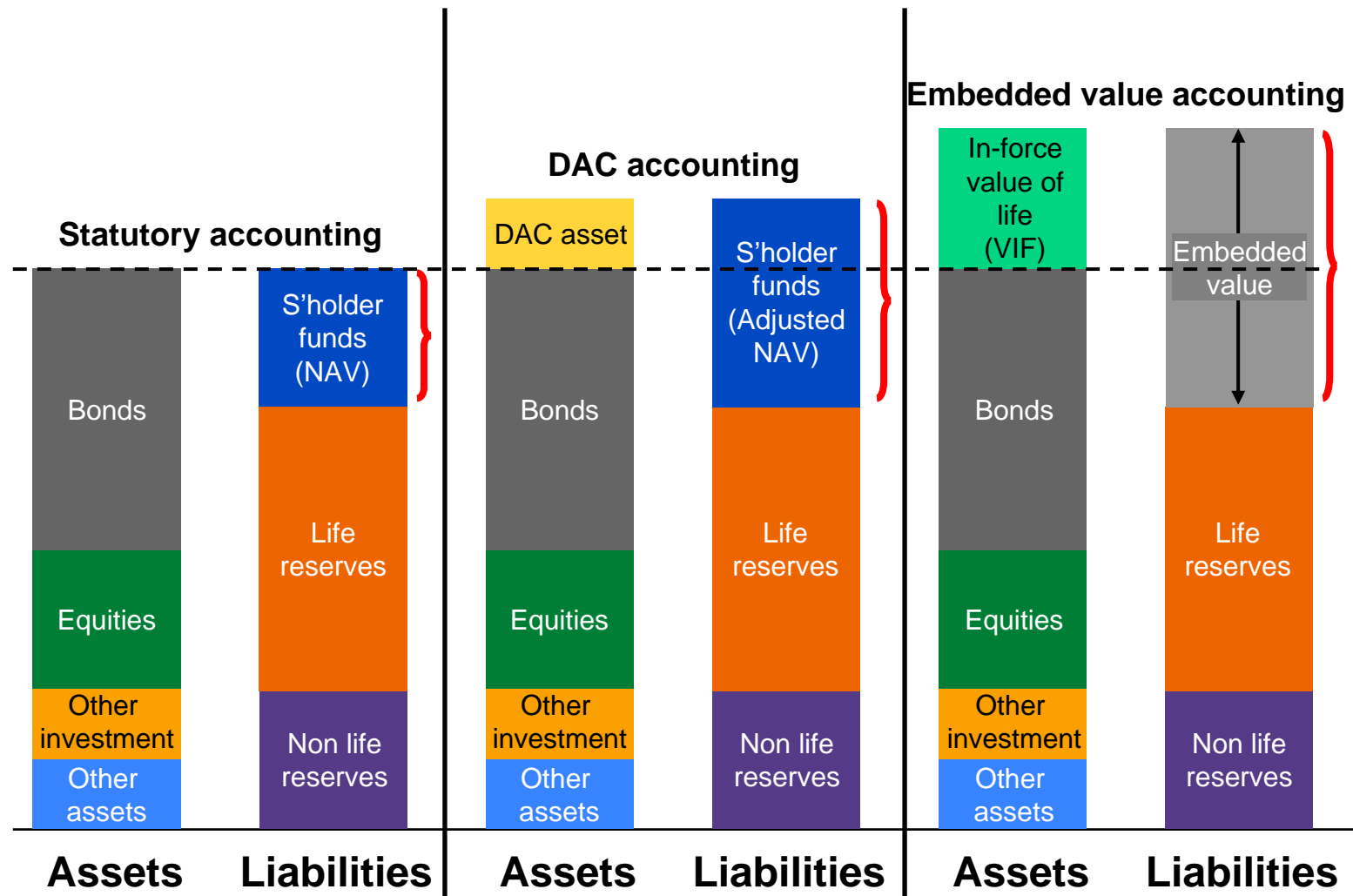


New business profit multiples reflect assumed growth rate & discount rate as well as base effect

Embedded Value & Appraisal Value in a Non-life Context

- Embedded values and appraisal values appropriate if insurer has:
 - Strong franchise
 - Control over pricing & distribution
 - High renewal rates
 - Extent to which annually renewable business is valued as part of embedded value rather than as part of future new business (i.e. franchise value) depends on renewal track record and overall strength of franchise
- EV should capture:
 - NAV plus
 - Value of future U/W profits on existing business plus
 - Value of projected investment return on “free float”
- AV should capture all of the above but also the value of future U/W profits and “free float” effect relating to future new business

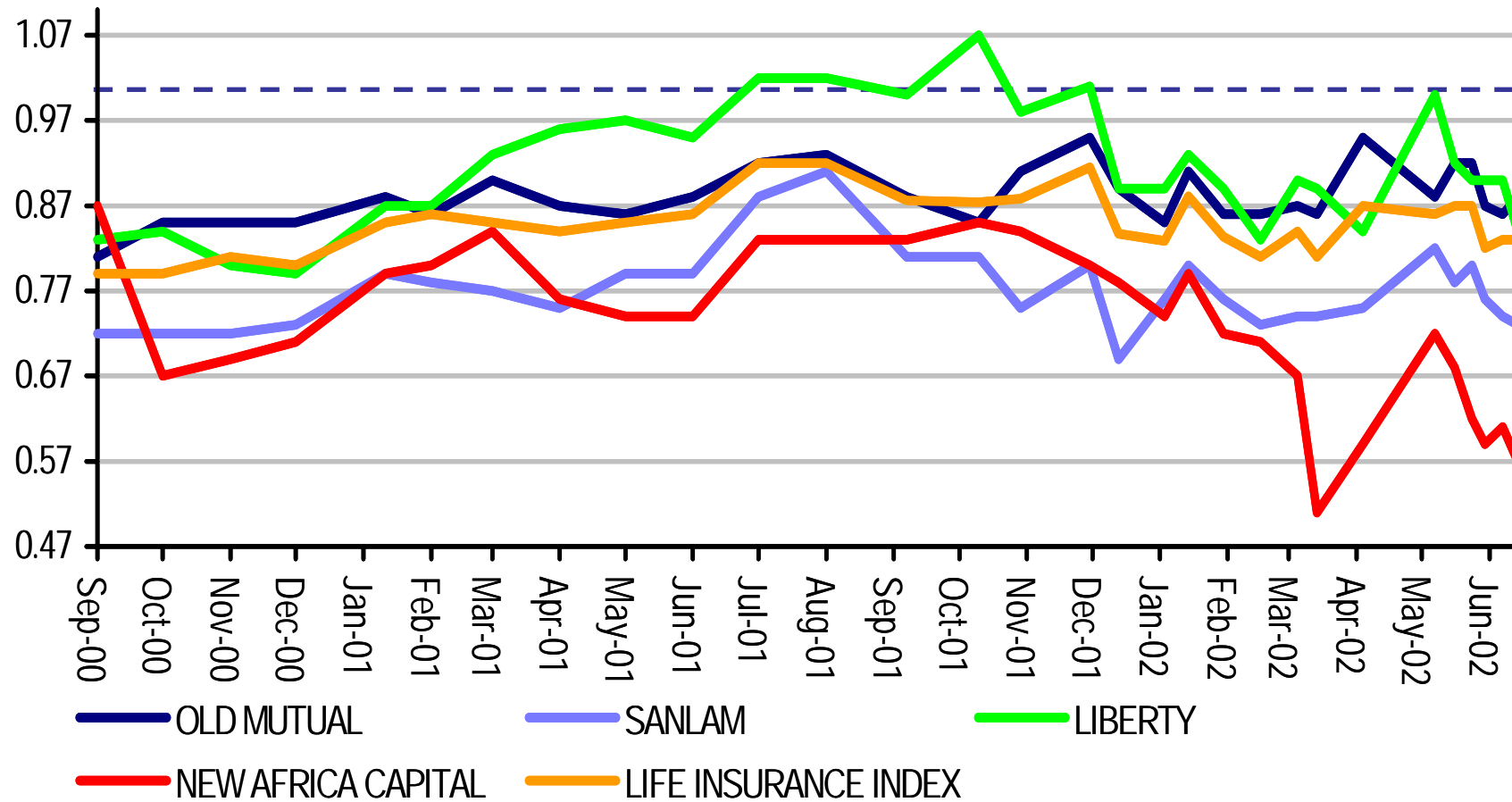
Insurance Company Balance Sheets



Franchise value excluded from balance sheets

Market Valuation Drivers

An example: Price to AV ratios of South African Insurers



Additional Quantitative & Qualitative Valuation Drivers

1. Life
VIF margin (Value of in-force / Value of liabilities)
Deterioration/appreciation in VIF margin
Return on Embedded Value (RoEV) relative to COE (discount rate)
2. Non-Life
Profit potential in low return environment – stage in U/W cycle
Reserve strength – net reserves versus net premiums
3. Financial strength
Absolute capital strength (Available Capital / Required (Risk-based) Capital) (%)
Development of capital strength
Sensitivity of capital base to various scenarios

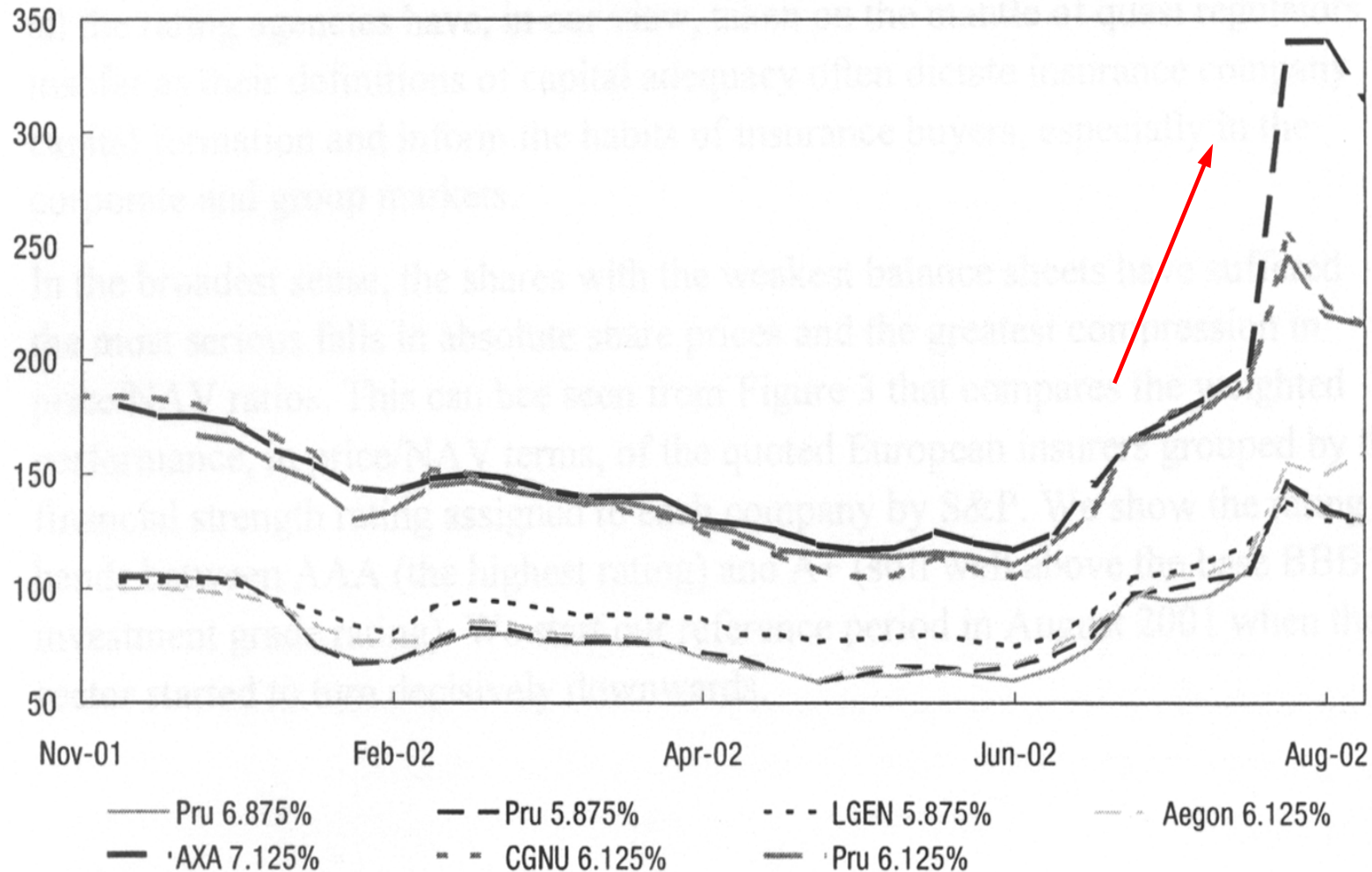
Return on Embedded Value

- EV at end less EV at start after eliminating:
 - One-off tax adjustments
 - Capital movements
 - Divestitures / acquisitions
 - Economic assumption changes
 - Other assumption changesPlus Dividend Release

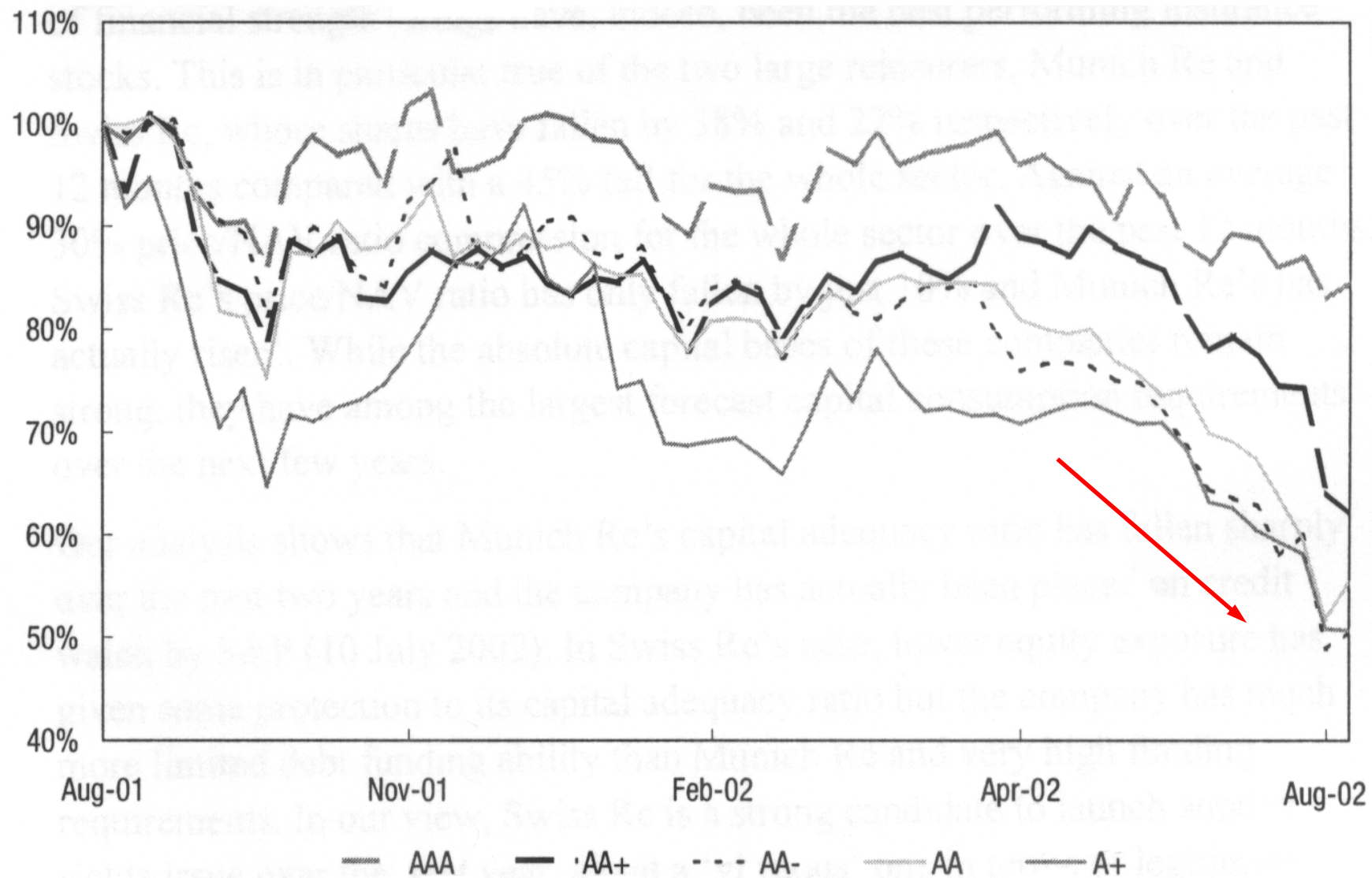
VS

- Discount Rate (Cost of Capital)

Sterling-denominated Bonds from Insurance Company Issuers Spread over Government Bonds, Nov01-Aug02



European Insurers - Price / NAV Ratio movements ranked by Rating Band



Key Elements of Financial Strength Rating Framework

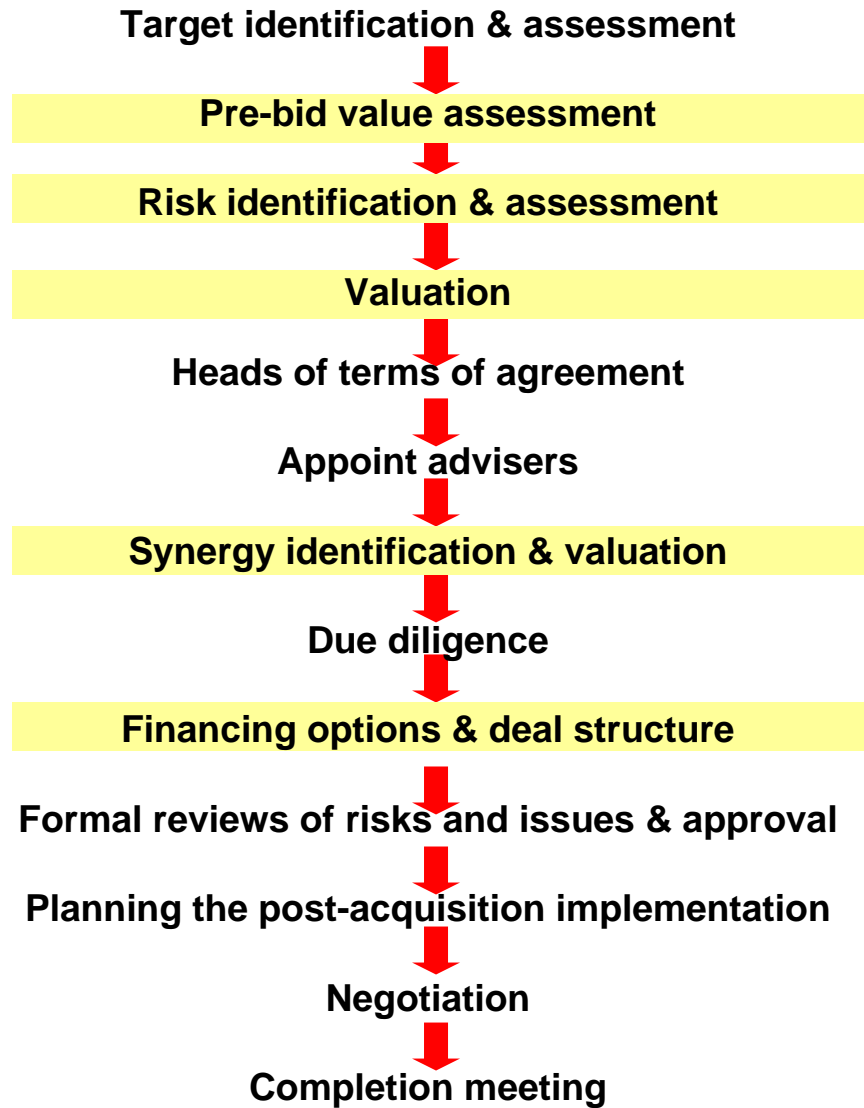
- Current position:
 - Assessment of Balance Sheet Strength



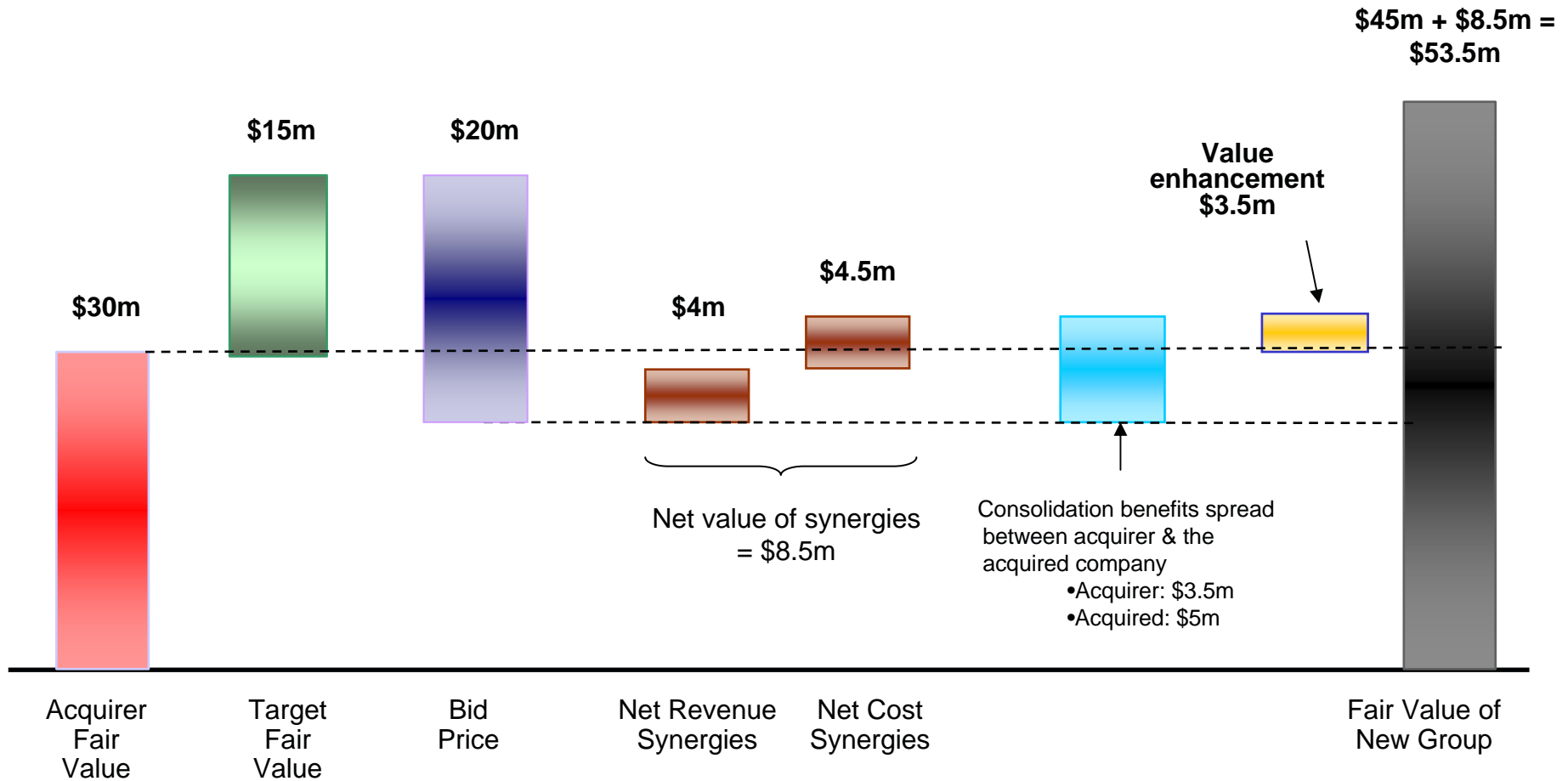
- Outlook for future balance sheet strength
 - Assessment of quality & sustainability of operating performance

Transaction Dynamics

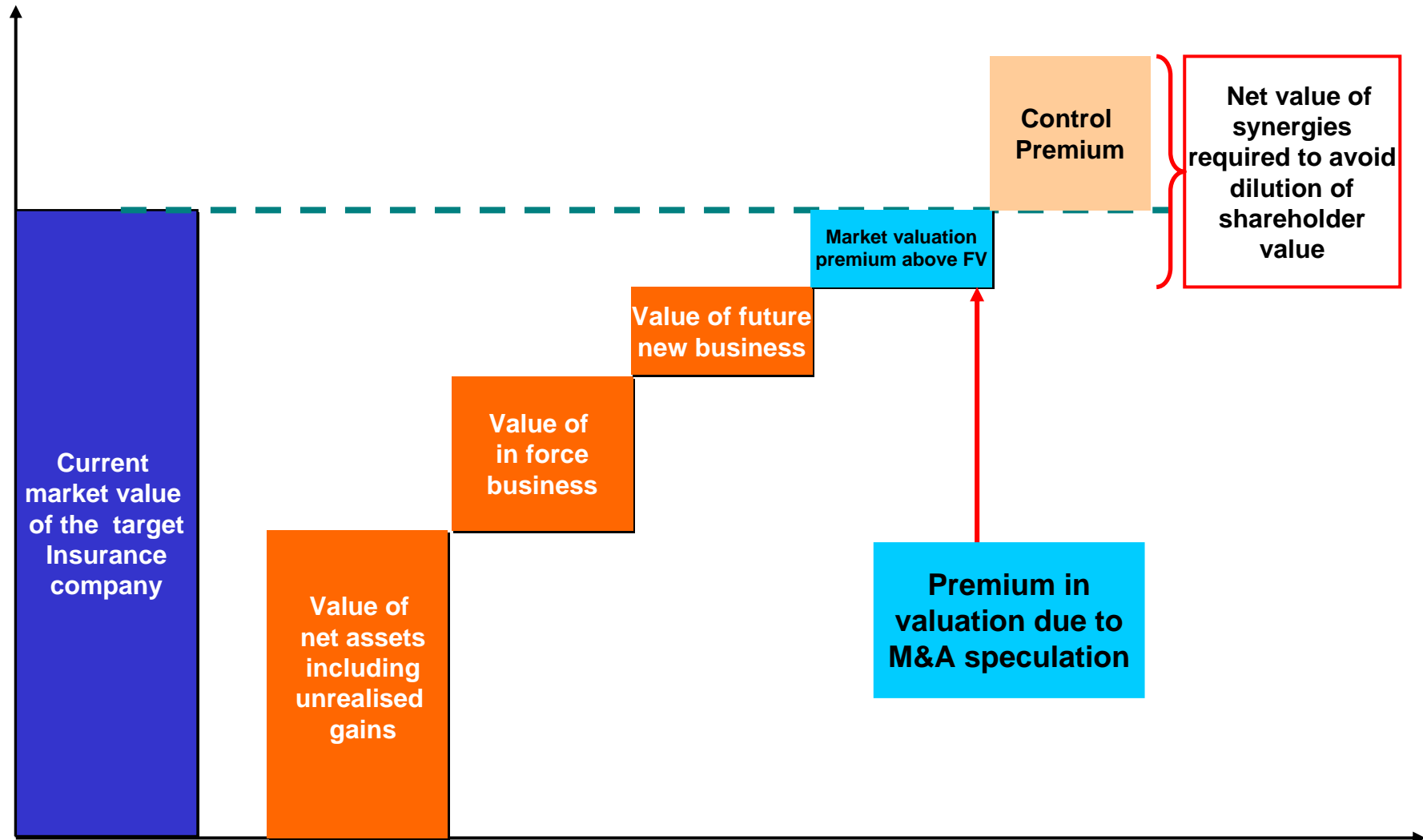
Stages of a Transaction



Pre- & Post-acquisition Valuations



Decomposition of Acquisition Price



Potential Synergies (net of integration costs)

- Revenue Synergies
 - Greater U/W exposure relative to capital base
 - Greater boosting effect on net asset value growth from “free float”
 - Greater distribution breadth – access to new distribution channels
- Cost Synergies
 - Reduction in staff numbers relative to size of portfolio
 - Scalable IT infrastructure – adoption of one IT platform
 - Adoption of one brand
 - Reinsurance savings
- Integration Costs
 - Rationalization of infrastructure
 - Retrenchment costs & cost of tying in key executives

Risks specific to M&A

- Conflict arising from cultural differences
- Loss of portion of portfolio on consolidation
- Loss of support of certain distribution channels
- Operational risks relating to integration of IT systems and job cuts
- Capital levels relative to U/W exposure may be too low after acquisition
- Concentration / accumulation risk

Conclusion

- The valuation actuary plays an integral role at various stages in the M&A negotiation process.
- The appraisal value methodology is the preferred valuation technique.
- Other valuation drivers may result in a significant premium or discount between the market value and the theoretical value at particular points in time.
- Careful consideration of the revenue & cost synergies and the attribution thereof, is required before acquisition/merger terms can be finalized while keeping all the relevant risks in mind.

Overview of The Muhanna Group

- **Actuarial consultancy** - established in 1986
 - Life, P&C & Health Insurance
 - Pensions & Social Insurance
 - Insurance supervision
 - Management Consulting (Risk Management - Mergers & Acquisitions)
- **Software solutions** - established in 1990
- **Actuarial Education** - established in 1994
- **Rating services** - established in 2000

As of end 2003 Services were rendered in 32 countries

- Provided services to 41 government & semi-government organizations
- Advised 52 life & general Insurance companies
- Provide services to 94 other private institutions
- Financed & sponsored 23 actuarial students
- Delivered & published 67 actuarial and insurance papers & studies

ACTUARIAL SITES

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