

Biennial Convention 2009

Go for Gold

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Institute of Actuaries of Australia



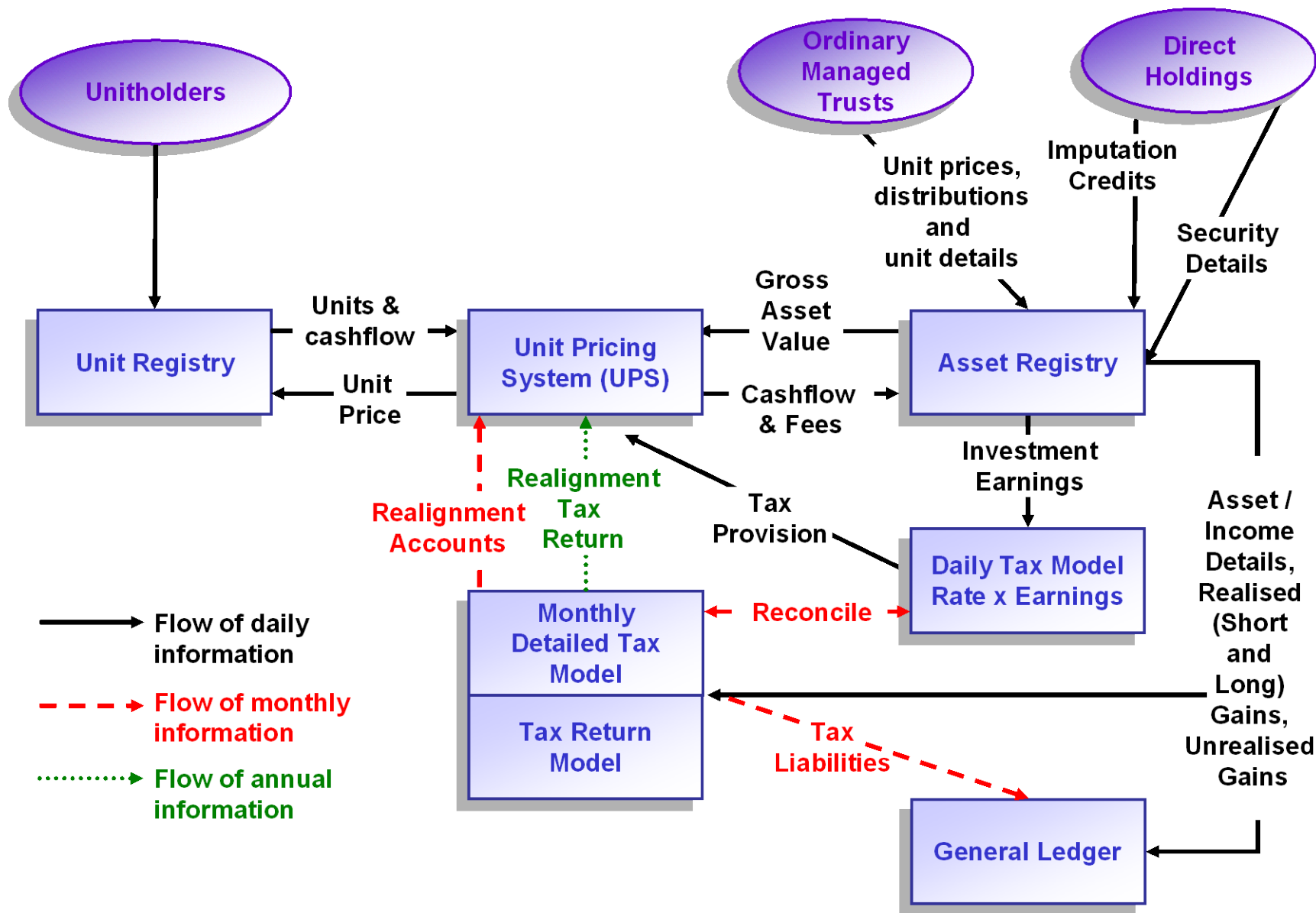
**Art or Science?
Industry Approaches to
Tax in Unit Pricing**

Michael Dermody



Introduction

- Background
- Deferred tax assets
- Approximate daily tax and reconciliations to detailed tax model
- Tax payments and parcel selection
- Discussion





Deferred Tax Assets

- Global financial crisis
 - Substantial and broad based falls across growth asset classes that superannuation is invested in.
- DTA valuation and monitoring are key current issues for fund managers.



Deferred Tax Assets

- Issues to consider:
 - Nature of asset – implications for simple valuation approaches.
 - Level of analysis – tax entity or investment option?
 - Frequency of monitoring.
 - Discounting for time value of money effects.



DTA – Valuation / Capping Approach

- Deterministic approach:

Expected Growth Rate x Years x Tax Rate

- Formula provides cap/trigger level (e.g. cap/review when DTA is 2% of fund assets)

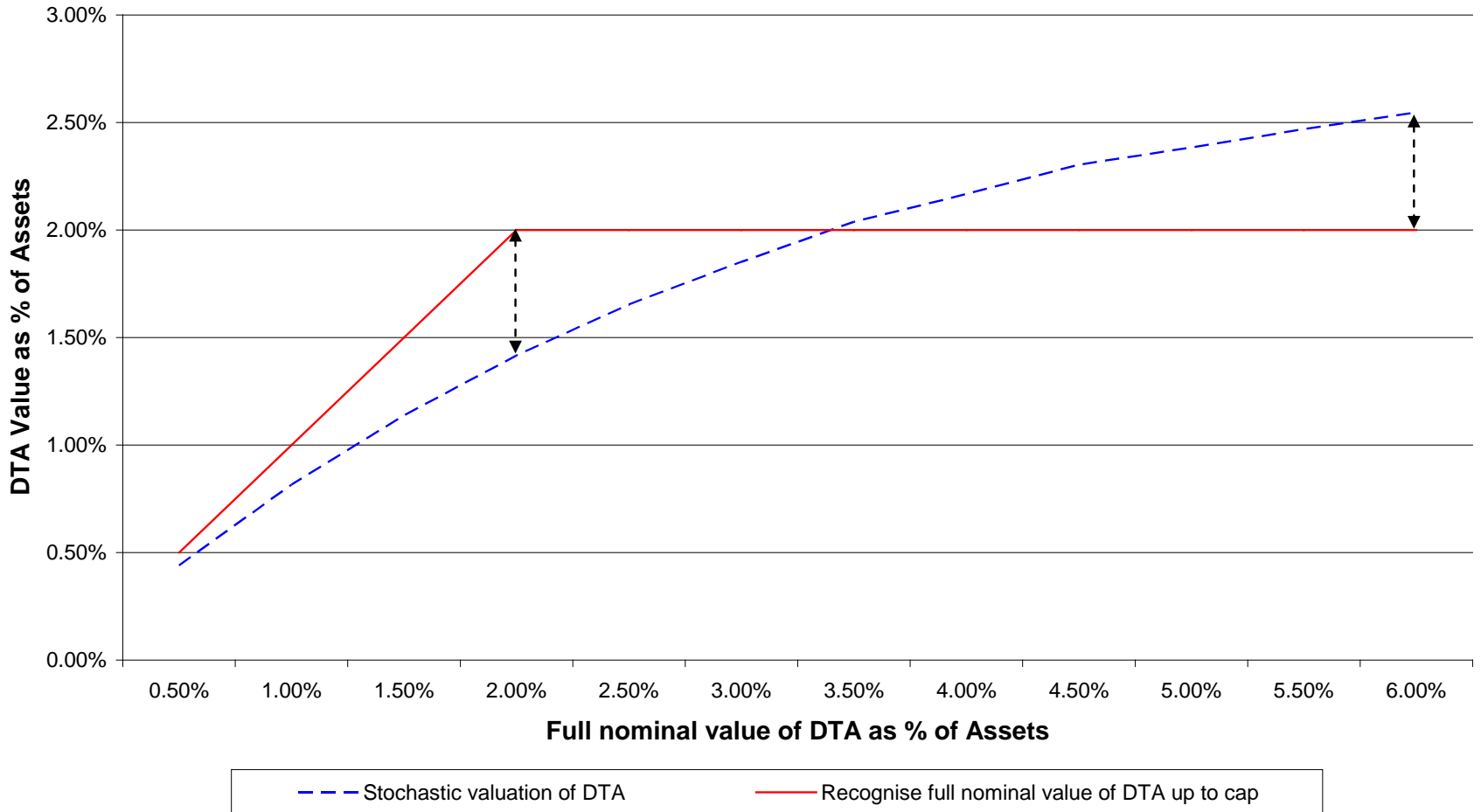


DTA – Valuation Stochastic Approach

- Stochastic/scenario approach:
 - DTA similar to call-option => theoretical case that analysis linked to projected future outcomes better reflects characteristics. However:
 - Assumptions for certain key parameters not market observable.
 - Implementation complex.
 - Stochastic/scenario analysis nonetheless useful:
 - Spotlight areas departure with simplified approach.
 - Alternative valuation view to support cap/value calculated on simplified approach.



Comparison of DTA Valuation Approaches





DTA: Tax Entity or Investment Option Analysis

- Tax law does not recognise distinctions between investment options within tax entity.
- “Loss-selling” rules:
 - Part of tax in unit pricing policy.
 - Typically based on nominal value (between 10%-15%).
 - Ex post “appears” to favour investment option with losses but really just rules set up in advance.
 - Theoretically loss-selling rules are determinant of value of losses => one argument supports case DTA value should take account of overall tax entity position.

Overall conclusion: important to set “loss-selling” rules and consider implications for DTA valuation and monitoring.



DTA: Tax Entity or Investment Option Analysis

- However, overall tax entity level focus may miss implications of large investment option level DTAs, such as:
 - Asset allocation impacts.
 - Time value of money.
 - Exposure to risks unitholder not expecting.
- Therefore may need to consider frequency of monitoring/disclosure.



Other DTA Issues

- Tax rate
 - Tax rate for losses is 10% or 15% depending offset long/short gains.
- Discounting for time value of money
 - Shift to not discounting
 - Large cash outflows may increase time value effects where deferred tax is an asset
- Monitoring
 - Avoid spikes in unit price
 - Risks unitholders not expecting



Daily tax method – Rate x Earning

- Detailed calculation may not be cost effective.
- However, some managers found the use of detailed calculations practical.



Daily tax method – Rate x Earning

- Advantage of more detailed approaches:
 - Simplifies reconciliations with detailed calculations.
 - Improves use of daily tax model as independent check on detailed calculation.
 - Reduced risk/judgement required for allocating differences.
 - Reduced time/effort maintaining estimation parameters



Imputation Credits

- Issues
 - Timing of recognition.
 - Use of preliminary information.
 - Timing of updating after receive final information.



Reconciling daily tax model against detailed tax model – Level of precision

- Differences emerge due to:
 - Methodology differences
 - Data differences
 - Model errors
- Quantify each of these impacts.
- Set a tolerance level for any unexplained or residual difference.
- If the unexplained is above the tolerance level, further analysis undertaken.
- Some managers have developed more systemised and automated approaches to the analysis.



Reconciling daily tax model against detailed tax model – Allocation of differences

- Issue – how to allocate the identified differences between the daily unit pricing tax calculation and the detailed tax calculation.
- Amount to allocate may be positive or negative.
- Guide recommends that any differences be allocated equitably, taking into account the reasons for the difference and the nature of the products.



Reconciling daily tax model against detailed tax model – Allocation of differences

- Additional issue of how the differences should be allocated across investment options.
 - High-level approaches appropriate for immaterial amounts.
 - Allocate differences to the investment options that generated them.
- Principle can be applied to synergy differences generated by interactions between investment options.
- More detailed daily unit pricing tax calculations reduces size of differences.



Other Practical Issues

- Tax payments
- Parcel selection



Conclusion / Discussion

- Deferred tax asset valuation and monitoring:
 - Have we got the right balance between analysis and judgement?
 - How should actuaries be involved?
- How much diversity in tax in unit pricing practice is appropriate?

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