



Indufor

Forest Valuation Summit

Managing uncertainty in valuations

Melbourne 30-31 March 2026

Biological valuation reporting

\$200million

Assets

Current assets

- Cash and cash equivalents
- Trade and other receivables
- Inventories
- **Biological assets**

Non-current assets

- Property, plant and equipment
- **Biological assets**

Total assets



Biological valuation reporting

Forest value:

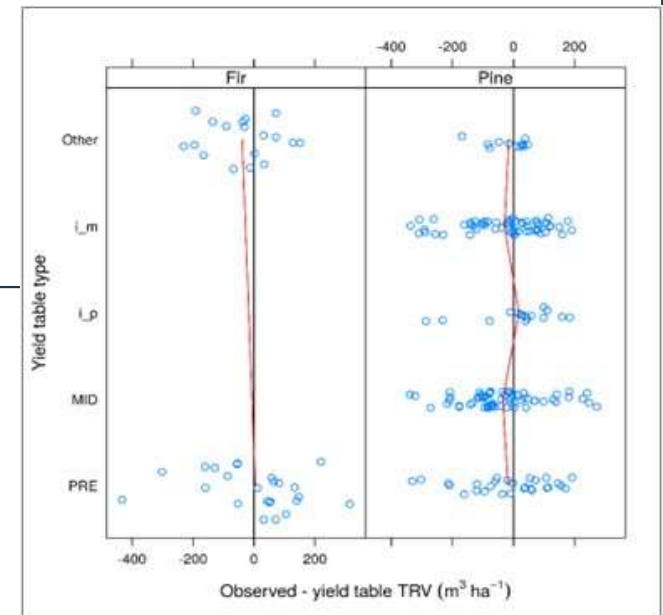
$$\begin{aligned} &= \text{Land value} \\ &\quad + \text{current tree crop} \\ &\quad + \text{future crop value} \\ &\quad + \text{carbon} \\ &\quad + \text{other sources of value} \end{aligned}$$



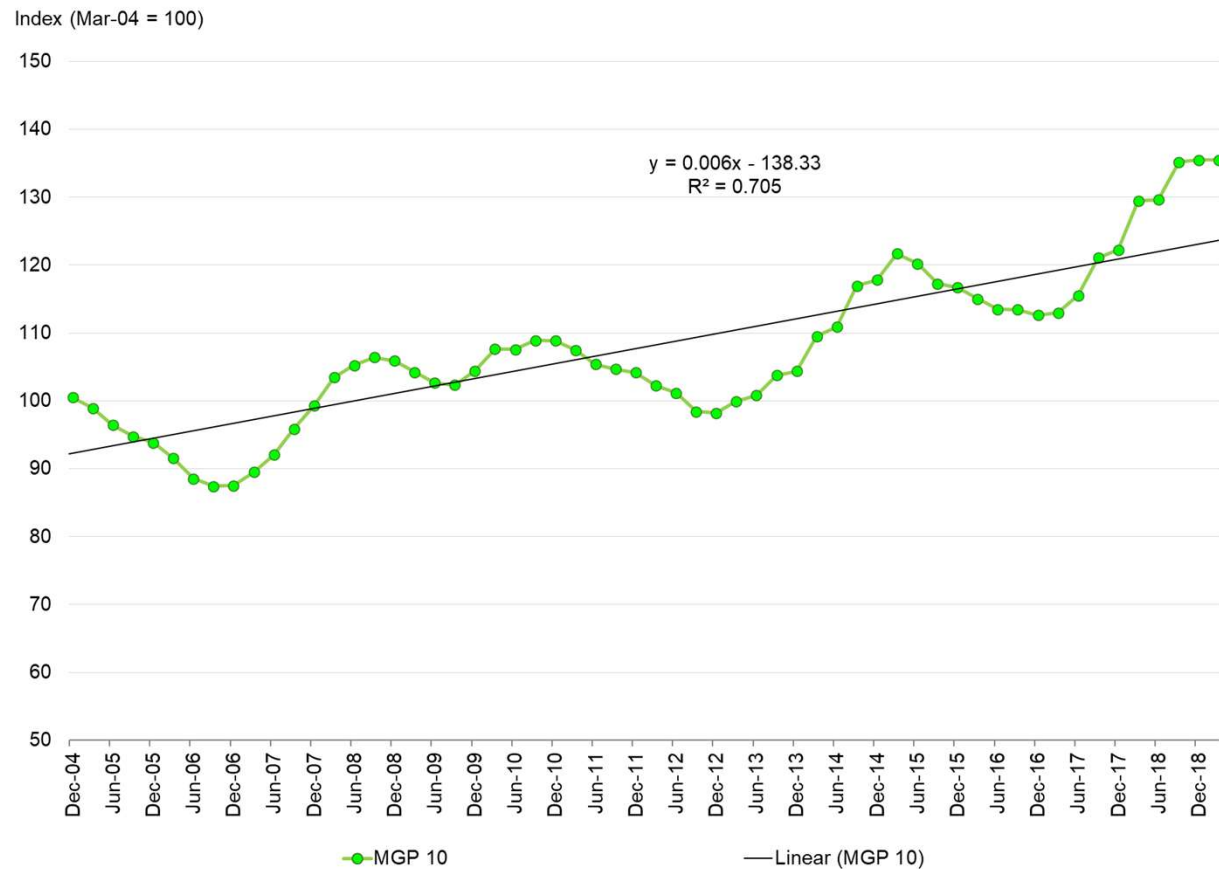
Biological valuation reporting – tree crop uncertainty

Yield

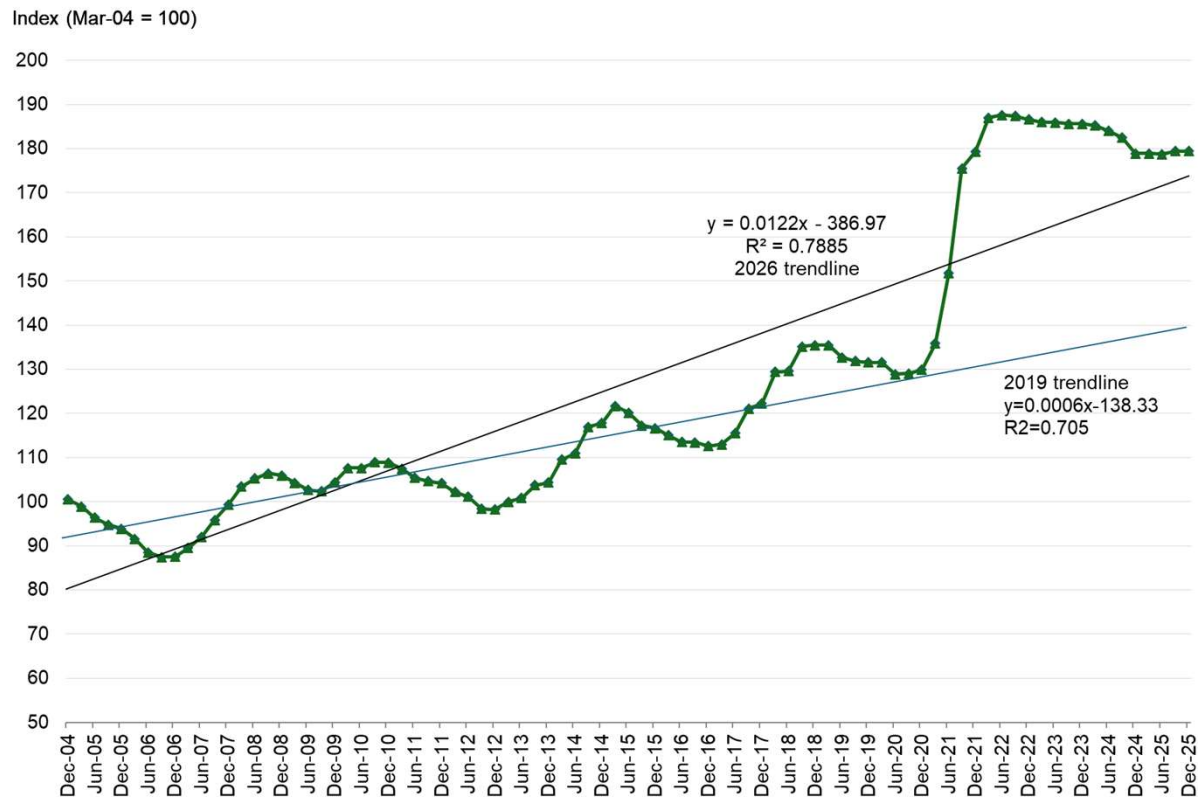
Inventory is commonly designed to provide an estimate which is within +/- 10 or 15% of true mean within (i.e. @95% confidence limit)



Biological valuation reporting – tree crop uncertainty – MGP10 2019 perspective



Biological valuation reporting – tree crop uncertainty – MGP10 2019 and 2026 perspectives



Reporting frameworks

Relevant accounting standards

- **AASB116 Land**
- **AASB141 Agriculture (tree crop)**
- **AASB 13 Fair value measurement**



Reporting frameworks – fair value

This Standard defines **fair value as the price that would be received** to sell an asset or paid to transfer a liability in an **orderly** transaction between **market participants** at the measurement date.

A **fair value measurement** assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under **current market conditions**.

Forest valuation standard definitions – risk and uncertainty

Risk: refers to the possibility of deviation from expected outcomes. It involves **known potential outcomes and probabilities which can be quantified** and assessed objectively.

Uncertainty: refers to the situation where there is a lack of knowledge or certainty in estimating a component of the valuation. It involves **unpredictable outcomes and/or unknown probabilities of their occurrence** which do not allow for accurate or precise calculations or predictions.

Forest valuation standard definitions – risk and uncertainty

The following table provides a guideline on the reporting of valuation uncertainty that is deemed to be material

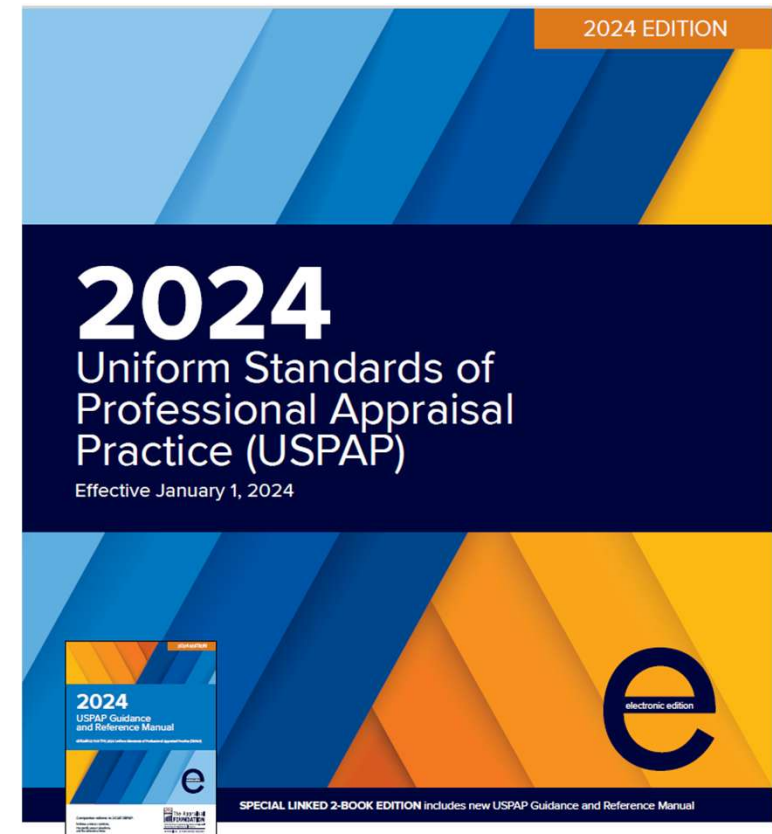
Event	Can Quantify	Cannot Quantify
Likelihood		
Probable	Include in forest valuation Not valuation uncertainty	Valuation uncertainty Disclose existence as a note
Possible	Valuation uncertainty Disclose existence as a note and potential financial effect if useful	Valuation uncertainty Disclose existence as a note

Valuation standard – risk and uncertainty

Valuation standard Uniform Standards of Professional Appraisal Practice (USPAP) (first developed in 1986) and developed for valuing real estate and real property– risk and uncertainty guidance

USPAP comments on uncertainty through differing means, including in the use of extraordinary assumptions.

Extraordinary Assumption: an assignment-specific assumption regarding information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusion.



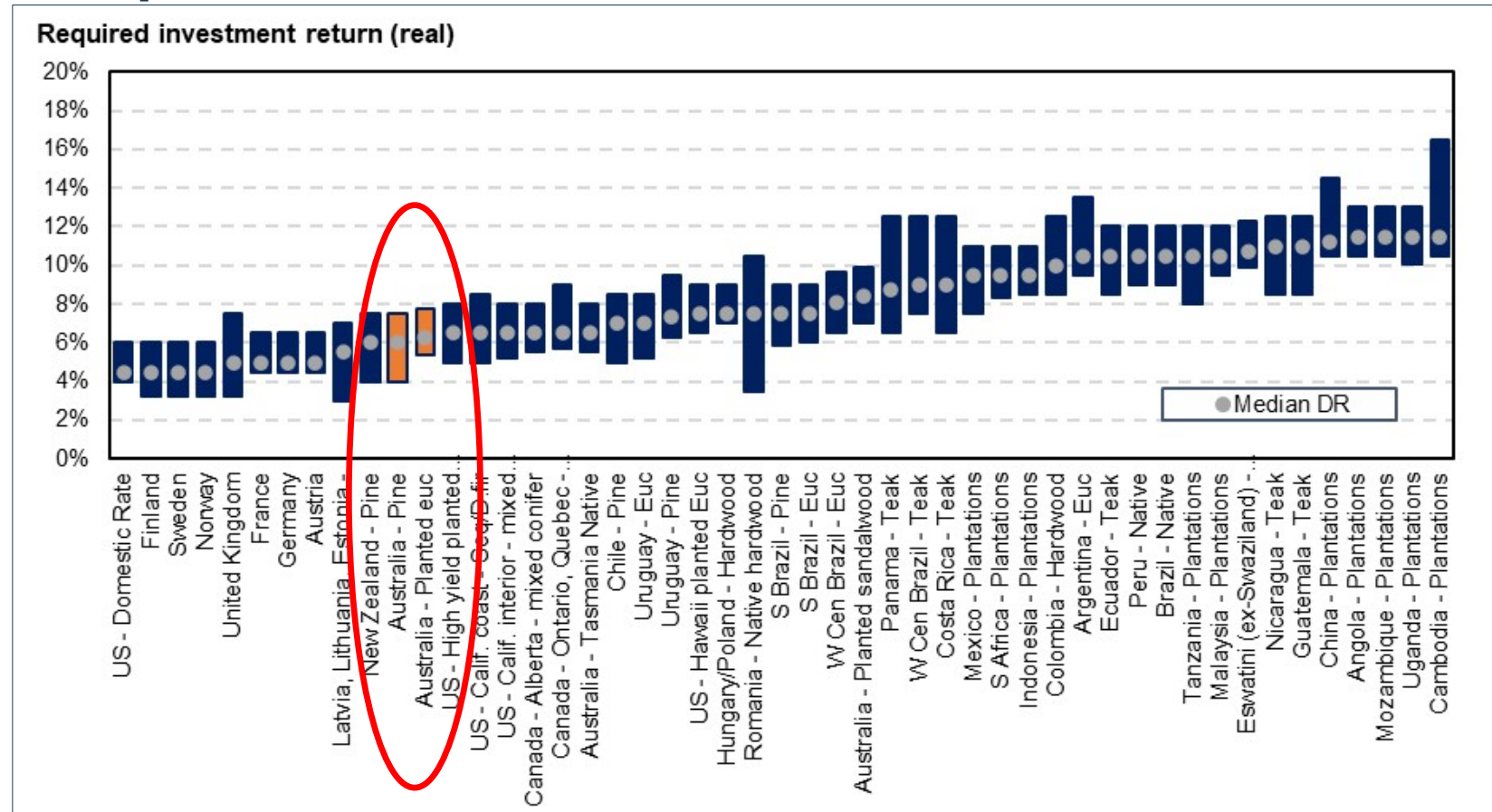
Contains USPAP Standards 1 through 10

*Guidance and USPAP Reference Manual
now available in a separate volume.*

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APPRAISAL STANDARDS BOARD

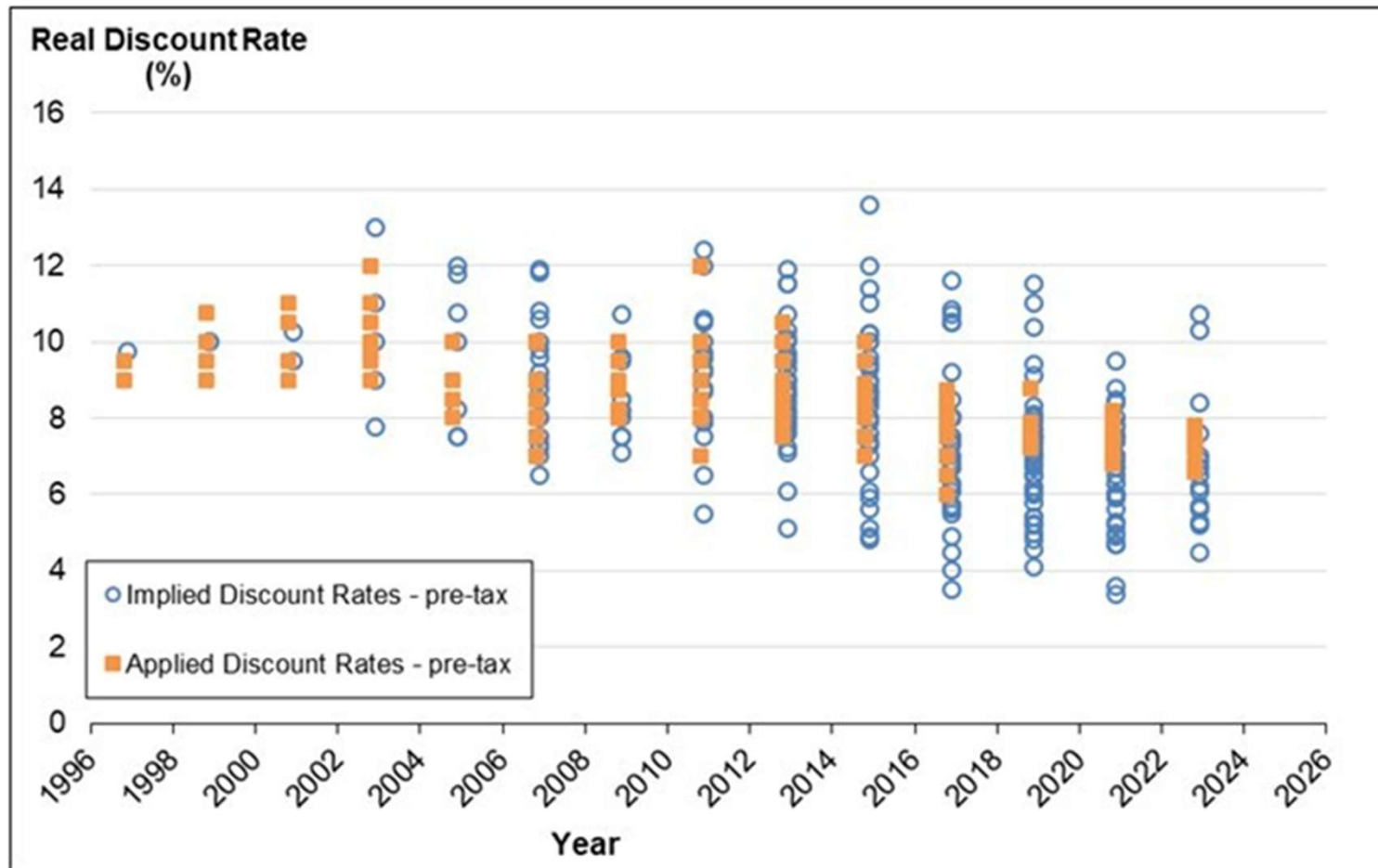


Valuation approaches – discount rates – international comparison



Source: James Sewall

Valuation approaches – discount rates – Manley survey



Source: Manley NZIF various

Challenges in treatment of uncertainty

- **Intuitive differences in uncertainty by valuation component**
- **Interpreting fair value observations**
 - Overall viewpoints of market behaviour
 - Apparent market treatment of uncertainty by component



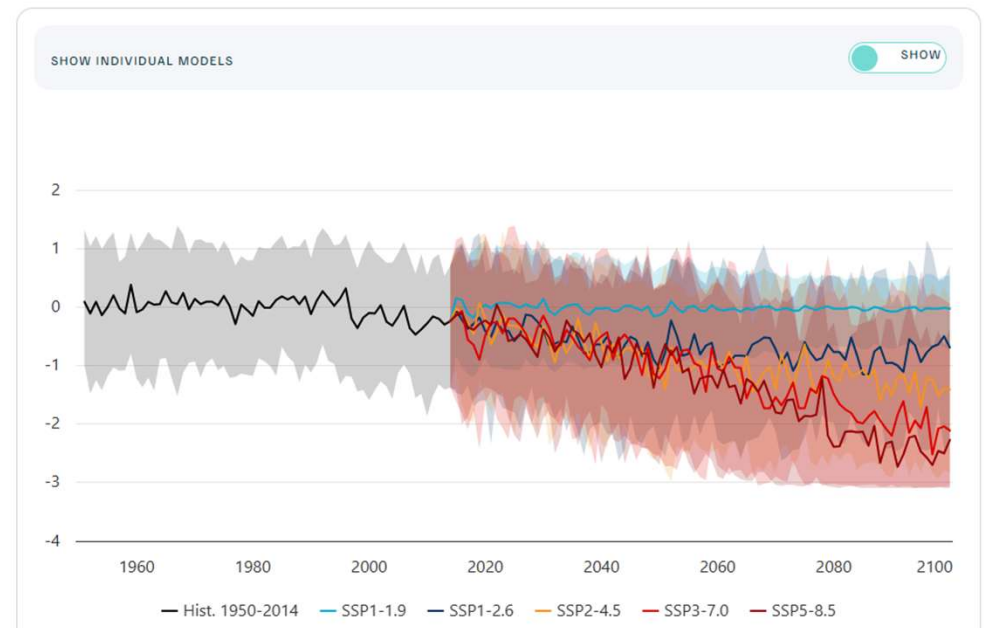
Source: Masdar - Portugal

Challenges in treatment of uncertainty

- Approaches to define climate change effects

Projected Timeseries Anomaly of Annual SPEI Drought Index

South Australia, Australia • 1950-2100 • Multi-Model Ensemble • Ref. Period: 1995-2014



Challenges in treatment of uncertainty

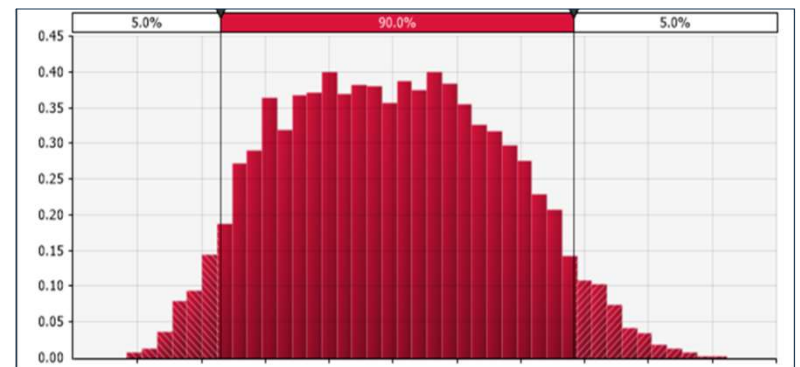
- Treatment of catastrophic loss



Photo credit: NZFFA

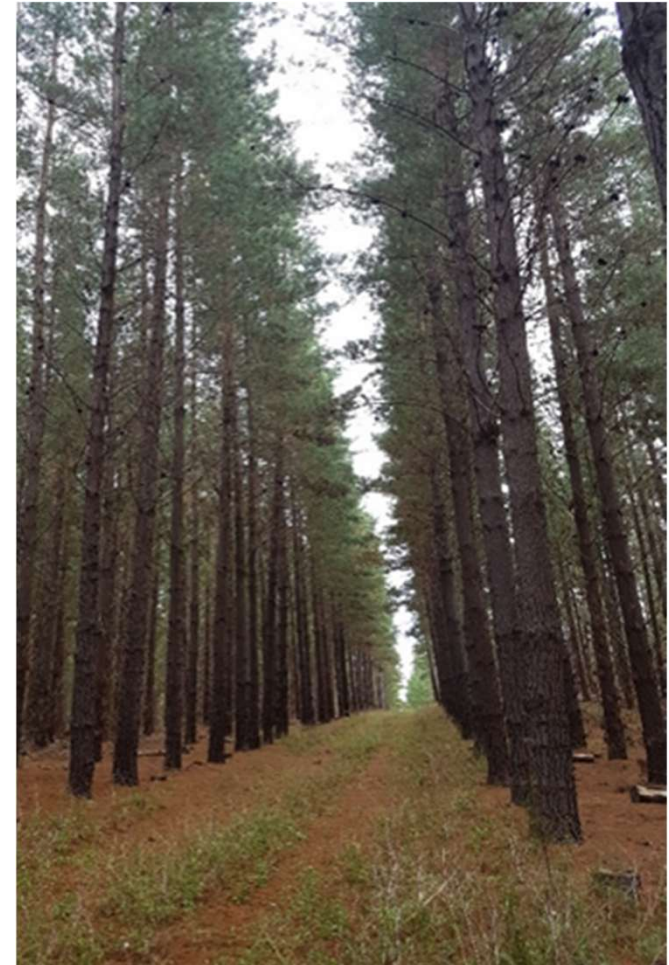


Photo credit: Andrew Bussau (HVP)



Summary

- **Valuations are not a fact, but rather an estimate of the most probable of a range of possible outcomes based on the assumptions made in the valuation process.**
- **Uncertainty exists in the operating environment for those owning and managing forestry assets**
- **Critical that valuers identify the material forms of uncertainty in a valuation opinion and communicate treatment of that uncertainty**



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