

Methodology for risk-free discount rates and CPI assumptions for accounting valuation purposes

Herwig Raubal	Chief Risk and Actuarial Officer
Nicholas Bagnall	Investment Manager
Tore Hayward	Manager Investment Strategy

Outline

- Background and context Herwig Raubal
- Approach recommended in our consultation paper Nicholas Bagnall
- Evolution of this approach Tore Hayward
- Questions and Feedback

Background and context



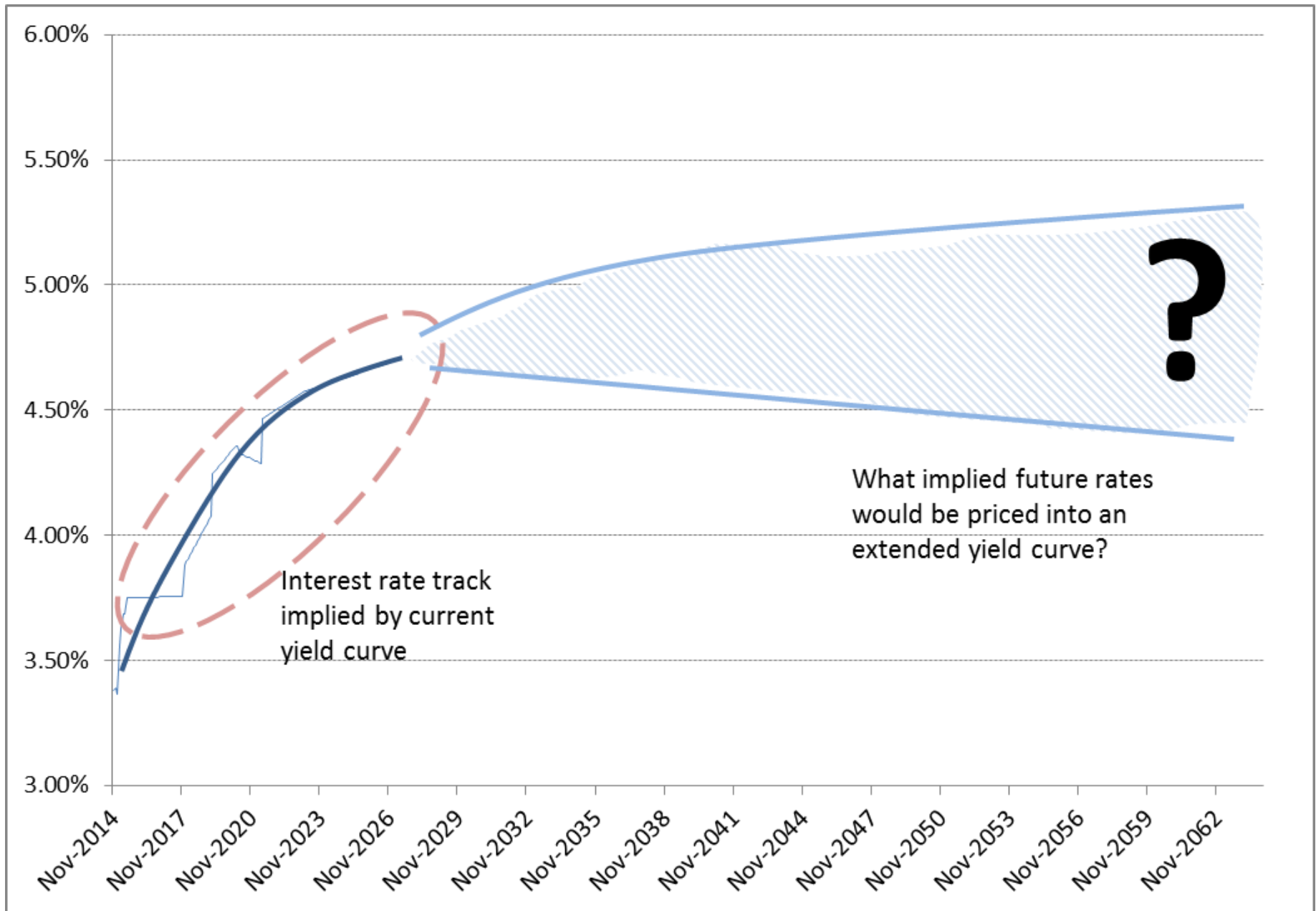
Herwig Raubal

Approach recommended in our consultation paper



Nicholas Bagnall

Future track of interest rates implied by yield curve



What would an extended yield curve imply about interest rates in (say) 50 years' time?



Factors that could be relevant:

- What is priced into the long end of the current NZ yield curve?
- What is priced into the long end of offshore yield curves?
- Factors that might influence perceptions as to what a “normal” interest rate ought to be:
 - ❖ Historical average rates in NZ (50 years).
 - ❖ Historical average rates offshore (50 – 100 years)

Evolution of this approach



Tore Hayward

The next version of our paper (work in progress)



- Developments since our paper
- How our thinking has evolved
- Implications of uncertainty

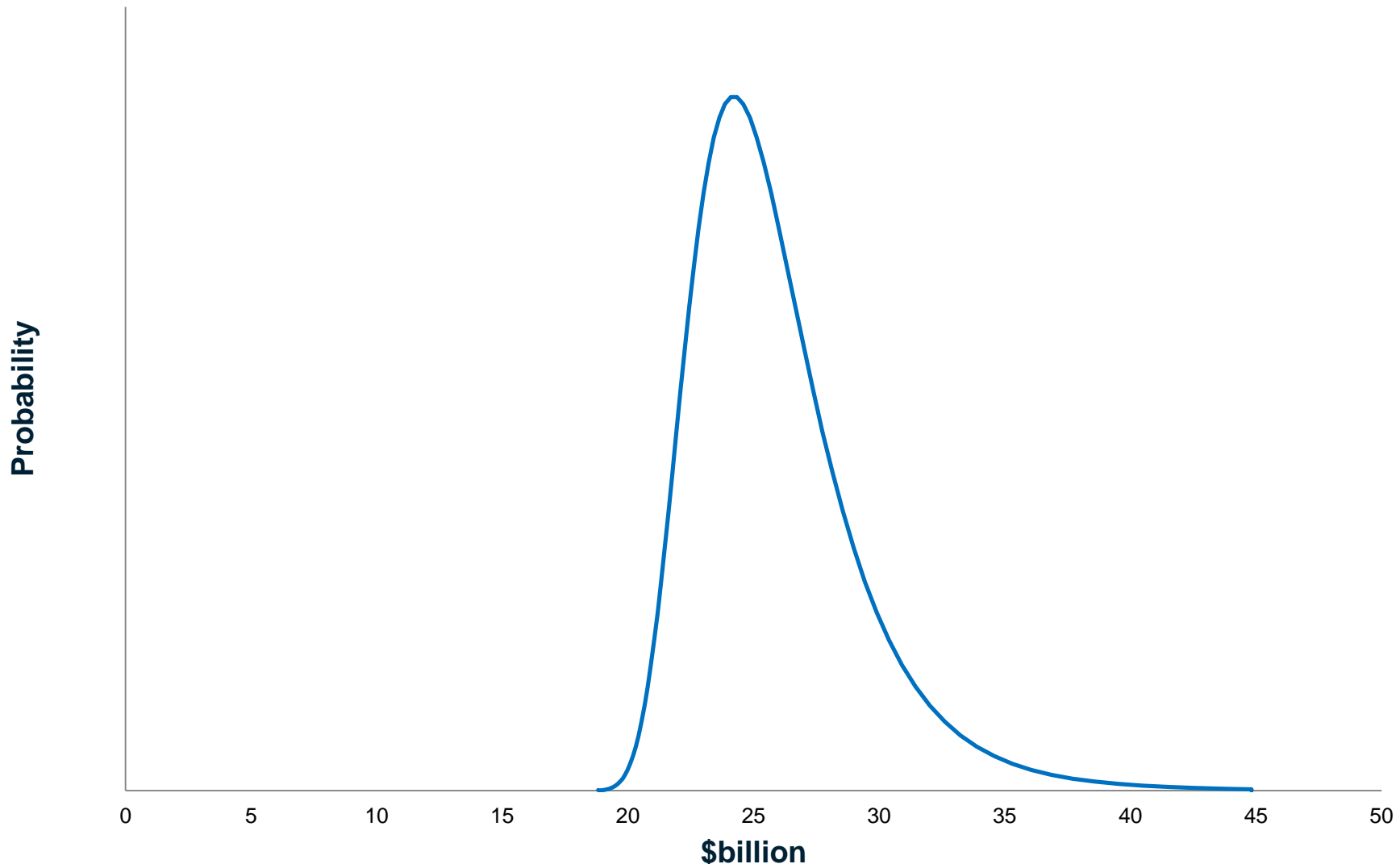
How our thinking has evolved

- More emphasis on inferences from market rates
 - ❖ More NZ yield curve to work from
- Refine the approach for doing this:
 - ❖ Implications of implied versus expected forward rates:
 - Convexity, risk preferences, liquidity, tax, regulatory
- What do offshore yield curves tell us about:
 - ❖ extrapolating beyond 20 years?
 - ❖ country 'gaps' beyond 20 years?

Implications of discount rate uncertainty and convexity



Present Value of Claims Run-Off



Discount longer cash flows at median expectation minus 15-30bp?