Term of the rate of return

Initial network sector views

AER Stakeholder Forum, 15 June 2021

Energy Networks Australia

Outline of presentation

1. Context for the 2022 Rate of Return Review.

2. Implications for the long-run interests of consumers.

3. **Matching terms:** ENA agrees that term issues for equity, debt and inflation can be considered separately.

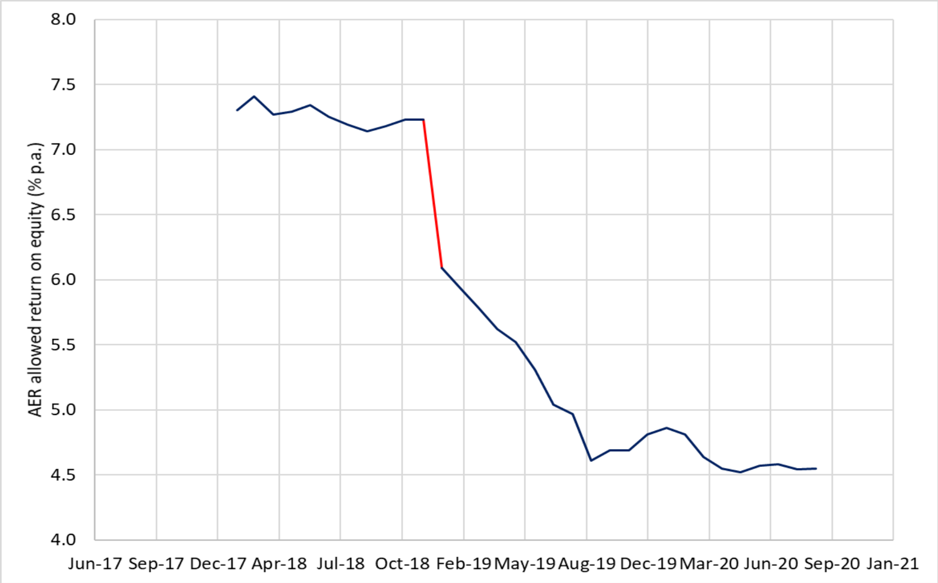
4. **Term of debt:**
   - The benchmark efficient financing assumption that forms the basis of the allowed return on debt must be one that is **viable for a network to implement**. The approach of adjusting the credit rating to account for a perceived difference in the term of debt results in a benchmark debt management approach that is not viable and therefore should not be used.
   - ENA submits that the evidence, and practical considerations, support **retention of a 10-year trailing average** for debt.

5. **Term of equity:** ENA submits that a 10-year CAPM risk-free rate should be maintained:
   - NPV=0 means that the **regulatory allowance should match the required return**.
   - Required returns in the **market** are based on a 10-year risk-free rate.
   - This has consistently been the **AER view since 2009.**
   - **Regulatory practice is converging** on a 10-year term.

Context for the 2022 Rate of Return Review

The AER's allowed return on equity has fallen to almost one third of its previous level…

…the allowed return on equity was reduced by 24% in the 2018 RoRI…



…and has since fallen by a further 36% due to the decline in government bond yields.

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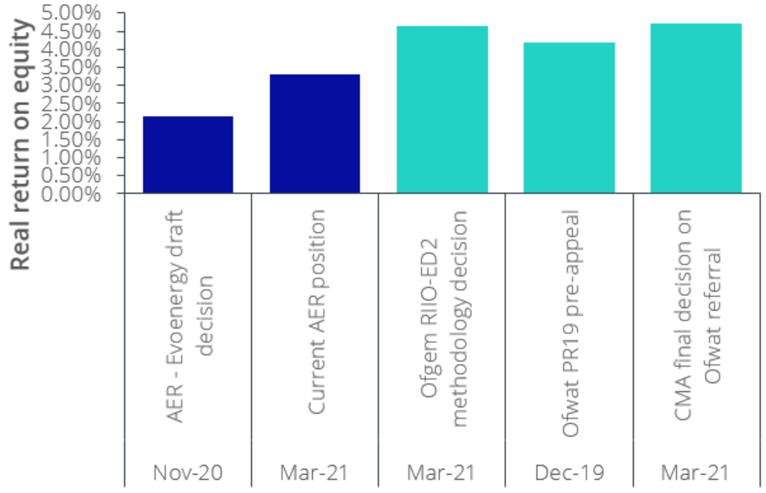
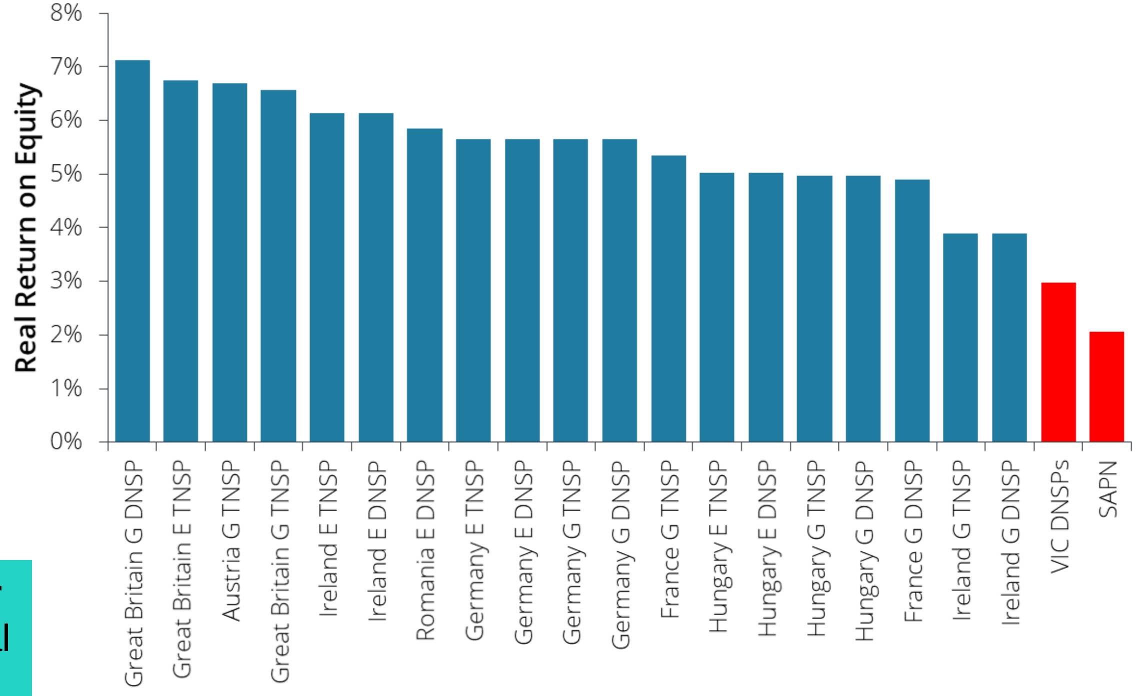
Context for the 2022 Rate of Return Review

Brattle advises that the AER’s allowed return is materially lower than the allowances of other comparable regulators.





All of the issues raised to date would have the effect of **further reducing** the allowed return – even below the current historical lows. Would this **exacerbate the gap between the AER’s allowances and those of other regulators?**

Unclear that there is new evidence requiring a re-examination of some of these issues, particularly in the context of already record low return allowances.

ENA understands that the 2022 process is only just commencing, and looks forward to the balanced set of issues to be covered in the Return on Debt and Return on Equity papers.

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The AER's guiding principle raises important considerations from a consumer perspective

Do we understand the risks to consumers?

Traditional risks have centred on:

- Outages
- Resilience to severe weather and fires

Risks critical to this review stem from the **importance of timely network investments to:**

- **facilitate lower wholesale prices**, through both:
  - Transmission investments to interconnect the NEM and REZs by delivering AEMO's ISP
  - Distribution investments enabling consumers to lower theirs and all consumers' energy costs by efficiently integrating DER
- **facilitate customer agency**, absent investment to integrate DER, customers face constraint and control on their DER, thereby losing agency and risking stranding or underutilising their DER.
- **decarbonise Australia's economy**, emissions targets cannot be met without timely grid investment. EVs will need charging infrastructure as ubiquitous as our petrol stations, and renewable energy must be securely moved and stored from where and when it is produced to where and when it is used
- **maintain system security**, all of the above cannot be securely delivered without grid investment, the alternative for customers is outages, lower power quality, constraint on their DER choices, and slower more expensive renewable transition.

AER guiding principle:

An **unbiased** estimate of the expected efficient return, consistent with the **relevant risks** involved in providing regulated network services

Green bank hauls SA-NSW cable over line

Angela Macdonald-Smith and Simon Evans

A $2 billion-plus power cable will be built between South Australia and NSW to handle a huge influx of renewable energy thanks to a last-resort deal with the federal government's green bank that has raised worries about funding for other needed transmission projects.

The 330-kilovolt cable from Robertstown in South Australia and Wagga Wagga in NSW will include a spur line to north-west Victoria. It paved the way for NSW households to save $64 a year on average power bills, said TransGrid after its board signed off on the $1.83 billion NSW section.

ElectraNet, the South Australian partner, is holding a board meeting next week to make a final decision on

How will the AER ensure this review leads to an unbiased estimate?

- Brattle data shows AER's approach is driving lower outcomes than global peers
- Every issue raised to date would have the effect of further reducing the allowed return
- Are there adequate cross checks?

Task for this review

To deliver on the NEO and NGO, AER has to estimate the WACC that investors ***do*** require … not someone's view of what they ***should*** require.

The jury is out on whether the 2018 RORI achieved this:

- Vic govt establishing VicGrid to implement $540m REZ Fund
- CEFC contributing $295m to help get PEC across the line
- SA contributing to the early works to keep PEC progressing

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No requirement to link term for equity, debt and inflation

ENA agrees with the AER’s reasoning and conclusion that there is no need to link the term for equity, debt and inflation.

The term should reflect the role of each parameter in the regulatory framework.

Inflation: Role is to “take out what you expect to put back in.” Will put back in actual inflation over 5 years, so it follows to take out expected inflation over 5 years.

Return on debt: Role is to compensate for the efficient cost of debt – no more and no less. AER determines the term of debt for a efficient benchmark firm and sets regulatory allowance to reflect that term.

Return on equity: Role is to compensate for the required return on equity at the time of the decision. Observe how required market returns are formed and set the regulatory allowance to reflect the term that is used.

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Term for return on debt:
Allowed return must reflect a viable financing strategy

- The benchmark efficient financing assumption that forms the basis of the allowed return on debt must be one that is **viable for a network to implement**.
- The regulatory allowance should match the efficient cost of debt. A debt financing strategy that cannot be replicated by a network is not an appropriate benchmark financing assumption.
- The approach of adjusting the credit rating to account for a perceived difference in the term of debt results in a benchmark debt management approach that is not viable and therefore should not be used.
- ENA agrees with Dr Lally's conclusions on this point.

Term for return on debt

Three reasons for maintaining a 10-year term:

(1) **Consistent with standard industry practice of firms with long-lived assets.**

(2) **Industry data on weighted average term to maturity at issuance (WATMI) reflects an average term of close to 10 years.**

(3) **Changing the benchmark term would involve a highly complex transition that could be costly and difficult to implement**

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Industry data supports a 10-year term

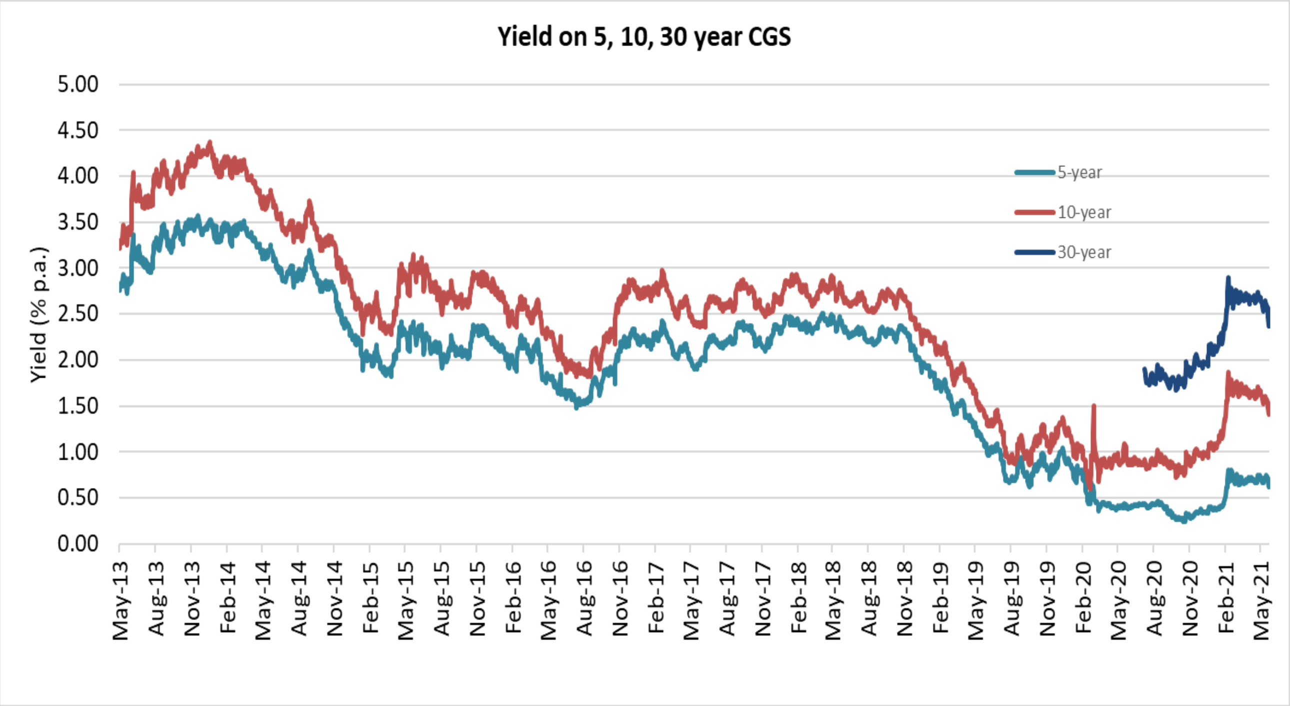
- It is important for regulatory stability to take a **long-term perspective** rather than a snapshot at a point in time.
- Many networks **explicitly target 10 year** debt.
- A firm with a 10-year target may issue some debt of shorter tenor and 'catch up' with longer tenors later – depending on market conditions at the time (e.g., financial crises and global pandemics).

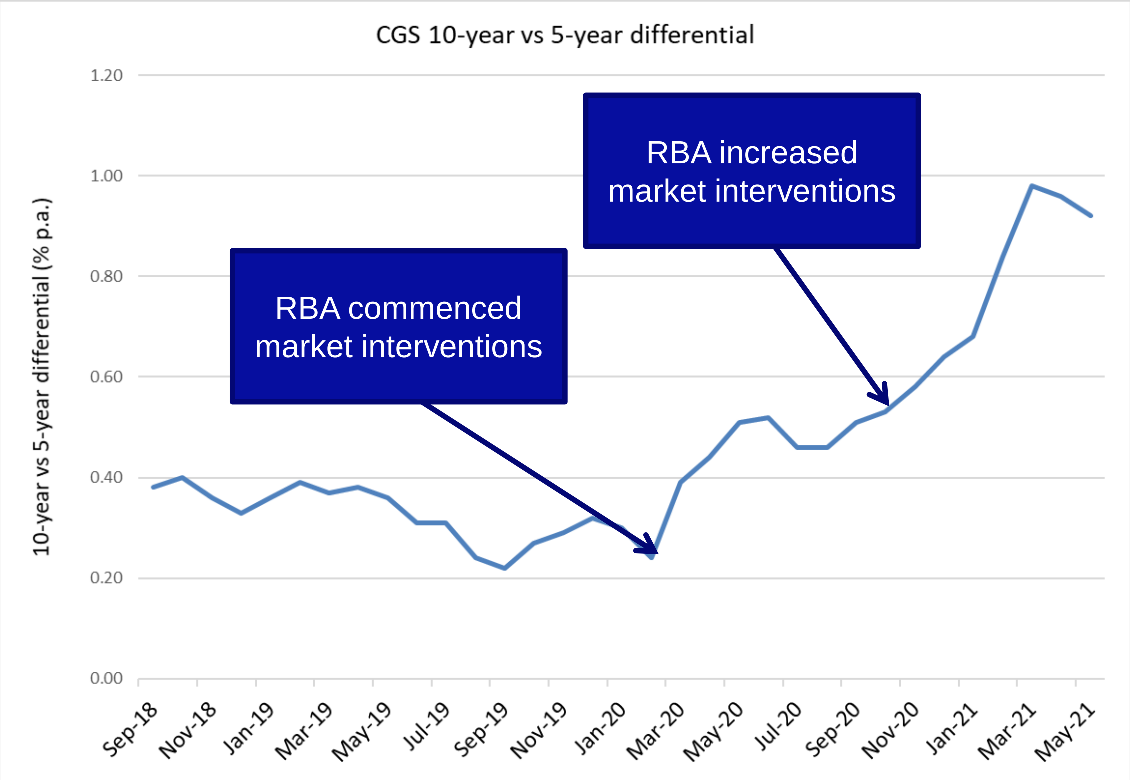
WATMI	30 June 2018	30 June 2019	30 June 2020
Excluding subordinated debt			
All firms	8.5	8.9	8.8
NSW firms excluded	8.9	9.1	8.9
Including subordinated debt			
All firms	9.3	9.7	9.5
NSW firms excluded	10.1	10.2	10.0

- Networks will take some **time to transition** to a steady state debt portfolio after a transaction. NSW firms are part way through that process.
- Should include all debt, not just a subset of it (agree with Lally on this).
- The costs and benefits of transitioning to an alternative benchmark term would need to be carefully considered.

- **Supports retaining a 10-year term**.

Term for return on equity: Key issue again is 5yr vs. 10yr risk-free rate





We consider the use of a 10 year term will lead to an overall rate of return that will better contribute to the achievement of the NEO and NGO. We consider a 10 year term is consistent with the theory of the Sharpe-Lintner CAPM which is a single period equilibrium model, estimating the returns an investor requires over a long-term investment horizon. The 10-year term also reflects the actual investor valuation practices and academic works.

AER, *Rate of return instrument – Explanatory statement*, December 2018, p.126.

Market participants use a 10-year risk-free rate

When using the CAPM, the standard market practice is to adopt a 10-year term for the risk-free rate.

- **Independent expert valuation reports use a 10-year term.**
- **Broker research reports use a 10-year term.**
- **Surveys indicate that market professionals use a 10-year term.**
- **Academic and expert literature adopts and recommends a 10-year term.**

The regulatory allowance should reflect the return that real-world investors <u>do</u> require.

Same as for the return in debt.

Other regulators use a 10-year rate, and some use longer rates

- All Australian regulators, other than the ERA, use a 10-year risk-free rate.
- International regulators use longer rates where available.

We acknowledge that we have undertaken extensive analysis on term-matching. However, we are no longer convinced that term-matching provides for an overall return on investment that is commensurate with the commercial and regulatory risks involved for regulated entities. As such, we have decided to adopt a ***10-year bond*** *term to estimate the risk-free rate.*
QCA, *Decision – Queensland Rail 2020 draft access undertaking*, February 2020, p. 42.

We set the bottom of the RFR estimate range as the 6-month average of the UK 20-yr ILG. We set the top of the range as the 6-month average of the IHS iBoxx £ Non-Gilt AAA ***10+ and 10-15*** *indices.*
UK CMA, *PR19 Final Decision, Paragraph 9.241.*

We considered evidence from both nominal and RPI linked gilt yields at ***10 and 20 year maturities*** *to construct estimates of the risk-free rate at our chosen 15-year investment horizon.*
Ofwat, *PR19 Final Decision, p. 29.*

*The CAPM allows us to estimate investor expectations by combining three parameters (the risk-free rate, equity beta, and Total Market Returns). In line with recommendation 2 from the UKRN Study, we estimate each of these three parameters using long-term tenors or long-runs of outturn data. [****20 years*** *used for term of risk-free rate]*
Ofgem, *RIIO -2 Decision, Paragraph 3.11.*

The ***10-year term to maturity*** *approximates the long-lived nature of the infrastructure assets being regulated. It is also in line with the term used by regulators and investment practitioners, and accommodates for the relatively limited liquidity of CGS that are well beyond a 10-year term to maturity.*
ESCOSA, *SA Water regulatory determination 2020 – Final determination: Statement of reasons*, June 2020, p.218.

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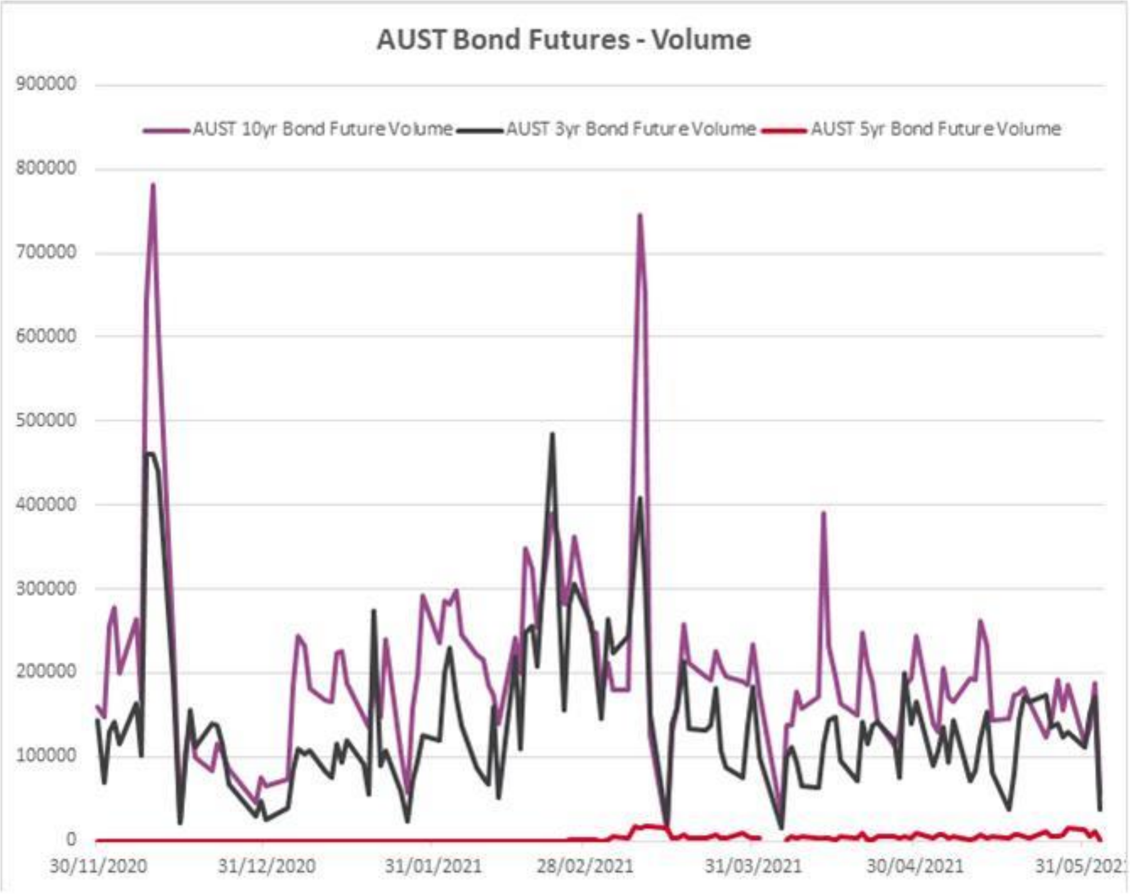
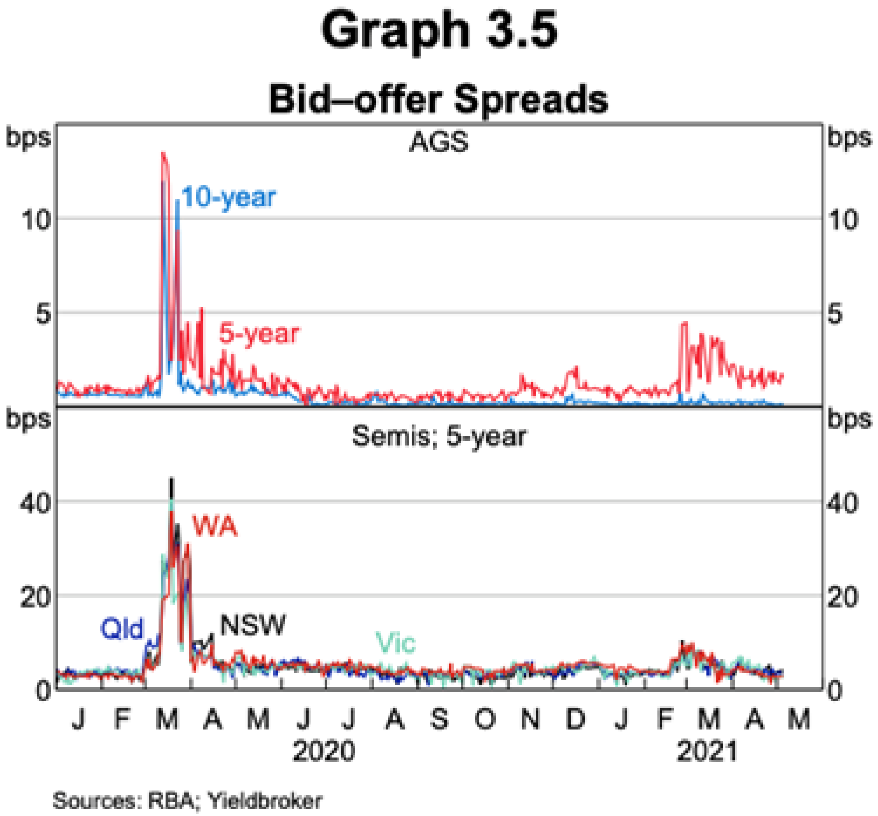
The 10-year bond is a key market instrument. The 5-year bond is not.



Source: Bloomberg



A 5-year risk-free rate is <u>not</u> consistent with NPV=0

1. NPV=0 means that **the regulatory allowance should match the required return** – no more and no less.
2. If required returns are actually determined in the market on the basis of a 10-year risk-free rate, so too should regulatory allowances.
3. For debt, the regulatory allowance is set according to the return that investors <u>do</u> require, and the same should apply to equity. Dr Lally's algebraic derivation of what investors <u>should</u> require relies on unrealistic assumptions.
4. We disagree with the conclusion that a 5-year term is consistent with NPV=0 and will provide detail on this in the ENA submission.
5. This issue was dealt with at length in the 2018 RoRI:
   - AER considered the NEO and NGO through the lens of NPV=0:

     A rate of return that meets the objectives must provide ex-ante compensation for efficient financing costs. This is ***a zero net present value (NPV) investment condition****.* [2018 RoRI, p. 22]

   - AER concluded that a 10-year term best promotes the NEO and NGO:

     Our final decision is to maintain use of a 10 year term for the risk free rate. ***We consider the use of a 10 year term will lead to an overall rate of return that will better contribute to the achievement of the NEO and NGO****. We consider a 10 year term is* ***consistent with the theory of the Sharpe-Lintner CAPM*** *which is a single period equilibrium model, estimating the returns an investor requires over a long-term investment horizon.* ***The 10-year term also reflects the actual investor valuation practices and academic works****.* [2018 RoRI, p. 126]

ENA preliminary views

Allowed return on debt

- The 10-year staggered maturity approach remains a prudent and efficient approach.
- The AER should retain that approach for setting the allowed return on debt.

Allowed return on equity

- The 10-year risk-free rate remains the standard approach for determining the required return on equity.
- The AER should retain that approach for setting the allowed return on equity.