Online forum
Rate of return working papers

Term of the rate of return

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15 June 2021, 9.00 am to 11.30 am

Agenda

Time	Duration	Item	Presenter
9:00	5 min	Check in period	
9:05	5 min	Welcome and Introduction	Warwick Anderson (Chair)
9:10	15 min	Overview of working paper	Eric Groom, PSM, AER Board member
9:25	40 min	Stakeholder Presentations	NSG, ENA
10:05	10 min	Break	
10:15	40 min	Stakeholder Presentations	CRG, APGA
10:55	30 min	Other presentations and questions	
11:25	5 min	Next steps	Warwick Anderson

Overview of the working paper

Eric Groom, PSM, AER Board member

Context and background

- Working paper program so far:

	Title	Draft paper	Forum	Subs close	Final paper
2020 working papers					
1	Energy networks debt data	26 Jun	29 Jul	14 Aug	18 Nov
2	International regulatory approaches to rate of return	27 Aug	16 Sep	9 Oct	16 Dec
3	Capital asset pricing model and alternative return on equity models	27 Aug	16 Sep	9 Oct	16 Dec
2021 working papers					
4	Term of the rate of return	21 May	15 Jun	2 Jul	Sep
5	Rate of return and cashflows in a low interest rate environment	21 May	23 Jun	2 Jul	Sep

Objectives

- National electricity objective (NEO)
  - To promote **efficient investment** in, and **efficient operation** and use of, electricity services for the **long term interests of consumers** of electricity with respect to:
    - price, quality, safety and reliability and security of supply of electricity
    - the reliability, safety and security of the national electricity system.
- Hearing – and understanding – stakeholder views is essential to our ability to advance the NEO and NGO
  - Also constructive for stakeholders to listen to each other's perspectives

Purpose of the Term of the rate of return draft working paper

- The working paper aims to:
  - Introduce the key topics
  - Present the AER's assessment of current evidence, building on the content of previous and current expert reports
  - Provide preliminary thinking and positions on potential changes to our approach
  - Invite stakeholder comment, and in particular provide constructive guidance on focus areas for stakeholders
- Comment on any area of the paper is welcome

Term of the rate of return

- The term of the rate of return relates to the expected time horizon of investors' investment in an asset
- The 2018 Instrument sets the term for the rate of return as ten years for both the return on equity and return on debt
  - There was evidence supporting a five-year term for the return on equity
- We committed to reviewing the term of the rate of return in the 2020 Inflation Review which changed the term for expected inflation

Whether the terms need to align between equity, debt and expected inflation?

- The term of rate of return and term for expected inflation should be independently assessed
  - Approximately half of the domestic regulators we reviewed set a different term of the rate of return to the term of expected inflation
- The term of equity and the term of debt do not need to align
  - Most Australian regulators that we reviewed, set the term for the return on debt and return on equity independently
  - Professor Davis, CEG and Dr Lally also supported this position

Our regulatory task and the NPV=0 condition

- Our regulatory task is setting the allowed revenue requirement that contributes to achieving the National Electricity Objectives (NEO) and National Gas Objectives (NGO)
- 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
- NPV=0 condition is central to our consideration but we also consider other factors

What is the suitable term for the return on equity?

- There are typically two options for the term of equity:
  - Match to the length of the regulatory period (typically five years)
  - Match the underlying asset lives (typically ten years is used as it is considered to better reflect long asset lives)
- Having considered all of the evidence, we accept that a case can be made for either option.

What is the suitable term for the return on equity?

- Reasons supporting matching to the length of the regulatory period:
  - It would satisfy the NPV=0 principle
  - Would provide compensation that is consistent with our regulatory task and investors' expectation over the same period
  - Consistent with the underlying long asset lives
  - It is supported by Dr Lally
  - The market practice of using a ten-year term differs from our regulatory task

What is the suitable term for the return on equity?

- Reasons supporting matching to the underlying asset lives:
  - Better match the long-lived nature of the underlying assets
  - There is reliable and consistent data for ten-year CGS
  - A shorter-term risk-free rate
    - exacerbates the CAPM's issue with respect to low beta assets
    - lead to greater volatility in the estimation of the cost of equity
  - There is uncertainty with asset value at the end of the regulatory period. Therefore, a longer-term discount rate should be used
  - It is consistent with most common regulatory practice.
  - Promotes regulatory stability and predictability

Whether to change term of equity?

- We are considering whether to move to match to the length of the regulatory period
  - Previous material from Professor Davis, Partington and Satchell, NZCC and the ERA indicate a relatively higher priority for satisfying the NPV=0 condition
  - Matching to the length of regulatory period provides compensation that reflects the expected return and investors' expectation
  - Other regulators have matched the term of equity to the length of the regulatory period
  - Investors can reasonably expect that they will be able to recover their investment due to the regulatory framework
  - Dr Lally has provided additional support for the importance of the NPV=0 condition and matching to the length of the regulatory period

What is the suitable term for the return on debt?

- We have been advised that the term should depend on the form of the return on debt

Form of the return on debt	Term
On-the-day	Match to the length of the regulatory period (typically 5 years)
Hybrid trailing average	Term of the base rate match to the length of the regulatory period Term of the debt risk premium match to the term of an efficient firm's debt
Trailing average	Match to the term of an efficient firm's debt

What is the suitable term for the return on debt?

- Preliminary position is to maintain the use of a trailing average return on debt
  - Provide certainty and stability
  - Consistent application of the trailing average approach would allow an allowed return on debt commensurate with efficient financing costs
  - Professor Davis has noted that regulatory judgement may ultimately be required on the form of the return on debt
  - Dr Lally has advised that a trailing average is feasible for businesses to implement
  - There is no clear 'best' answer for the form of the return on debt
- However, a trailing average return on debt may not be appropriate in all instances.

Using the EICSI to inform the return on debt term

- Considering using the EICSI and corresponding WATMI to inform the term of debt
  - An efficient firm's borrowing is likely to be best approximated by an industry-wide measure
  - International regulators have made some use of actual debt information in their regulatory decisions
- There may be potential limitations with this option, for example:
  - Professor Davis noted that there may be questions on businesses' incentives to minimise the cost of debt

Areas for stakeholder comment

1. Should the term for expected inflation match the term for the rate of return?
2. Should the term for equity match the term for debt?
3. Should the term for the return on equity align to the regulatory control period (typically five years) or a longer period more consistent with the life of the underlying asset life (e.g. ten years)?
4. What is the appropriate form for the return on debt for businesses we regulate?
5. What is the appropriate term of debt given the form of the return on debt (in your response to question 3)?
6. Should our index of network debt costs (EICSI) and the corresponding weighted average term to maturity at issuance (WATMI) be used to adjust the benchmark debt term?
7. What transitional arrangements would be required if a change in the debt term is implemented?

Stakeholder presentations