The cost of equity

AER forum

11 August 2021

Major Energy Users Inc.

About Major Energy Users

- The MEU comprises over 20 large energy using companies across the NEM and in WA and NT
- The members cover a wide range of industries
- The MEU focuses on the cost, quality, reliability and sustainability of energy supplies essential for the continuing operations of the members who have invested $ billions to establish and maintain their facilities
- MEU members have a major presence in regional centres across Australia, e.g. Gladstone, Newcastle, Port Kembla, Mount Gambier, Westernport, Geelong, Port Pirie, Kwinana and Darwin.
- What is important to the members is that all operate in a competitive environment and do not have their revenues guaranteed
- They all have observed that if they had their revenues guaranteed, they could operate with a lower return

Key elements impacting RoE

The AER has expressed a strong preference for using the SL CAPM as the basis for setting the RoE and the MEU concurs. This means there are four elements that impact the RoE

- Gearing
- Risk free rate
- Market risk premium
- Equity beta

This presentation focuses on a few aspect of each of these and an observation about financeability impact on RoE

Gearing

- In its omnibus RoR presentation, the AER contemplates reducing gearing from 60% to 55% debt, based on data from the few remaining ASX listed networks
- In the RoD presentation on Monday AM, there were discussions about where hybrid securities sit in the EICSI – debt or equity. An observation made was that hybrid securities should be in the development of the EICSI, implying they are debt. The MEU considers consistency is needed, impacting gearing.
- All MEU members access debt and they advise that, amongst other aspects, lenders use book values and revenue to identify how much they will lend and at what price.
- The MEU considers that gearing should be based on book values which are what lenders look at, not regulatory values

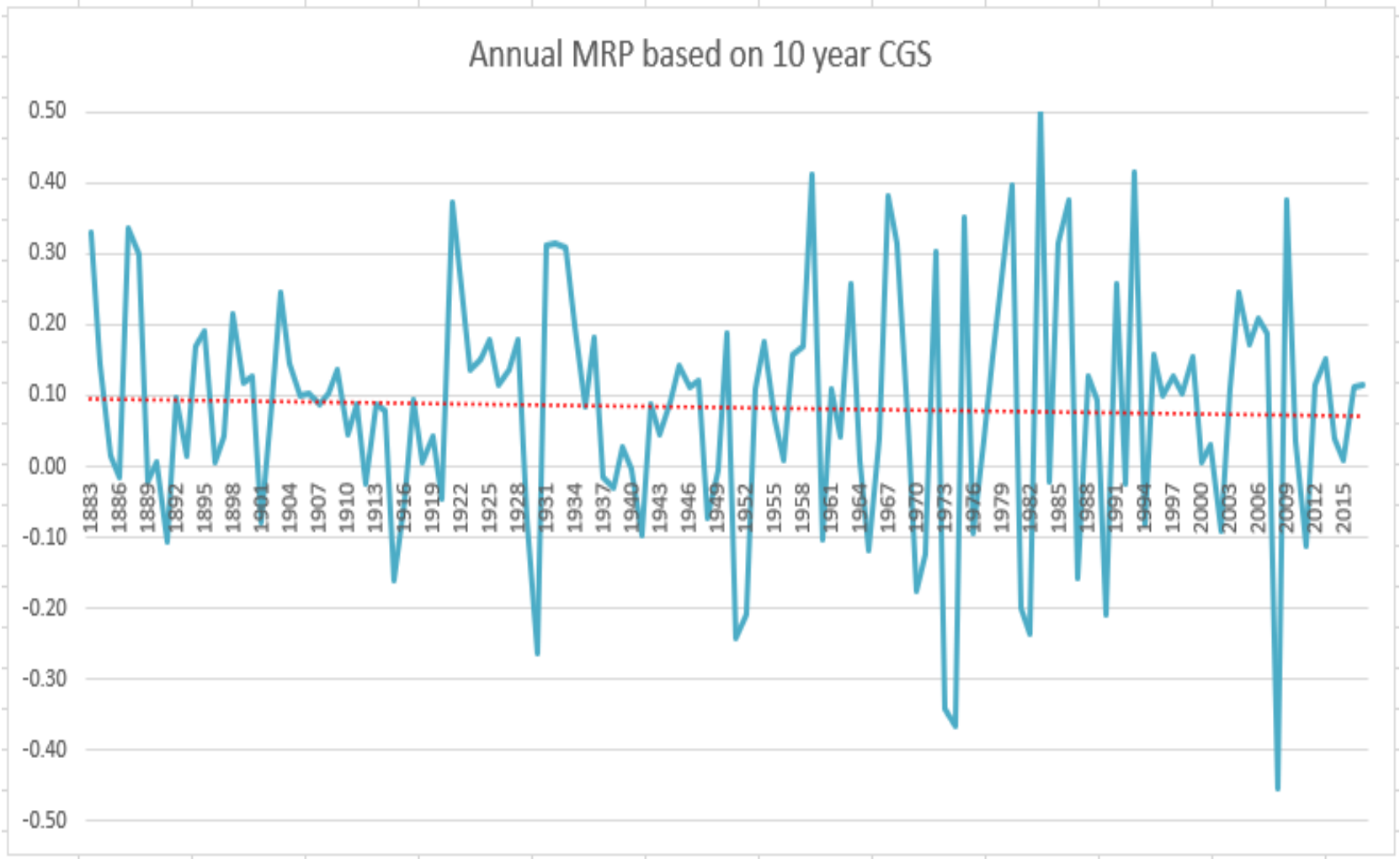
Risk free rate and MRP

- Market risk premium is the difference between overall company profitability (profits plus value growth) across publicly traded stocks (usually the ASX accumulation index) and a value considered to be a risk free rate
- That the MRP is the difference means that the selection of the risk free rate is to a degree immaterial to the development of the MRP
- What is important is:
  - Being the difference between two independent inputs, the MRP does not exist in its own right but is an outcome
  - The value of equity beta applied to the MRP before it is added to the RFR to generate regulated RoE

Valuing the MRP (1)

- In 2020, the ASX 200 acc index grew by 0.6% but so far in 2021 it shows 16.5% growth while CGSs have remained between 1.83% and 0.52 (2020) and 0.96% and 1.73% (2021).
- The volatility seen is quite extreme so averaging must be applied to reflect longer term expectations of MRP. We need to remember that the annual MRP is itself an average over a 12 month period as there are daily movements of the ASX and CGS.
- While the MRP is easy to calculate on a daily basis, it is the approach to averaging (arithmetic, geometric, inverse relationship, etc) that leads to disagreement
- What is also evident, is that volatility in MRP has increased in recent years masking what is occurring over time but the long term trend is that MRP is falling

Annual MRP, 10 year CGS



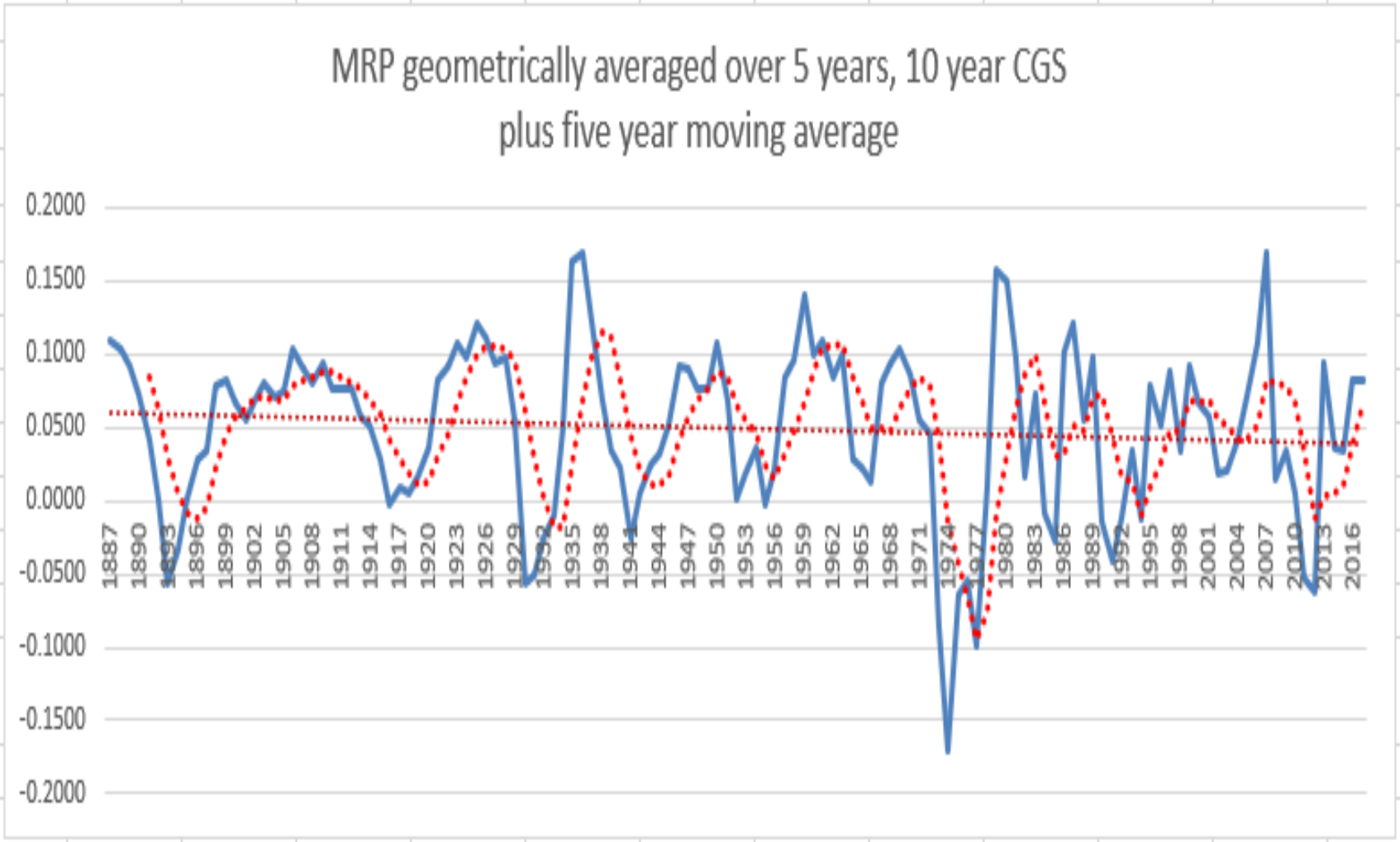
Valuing the MRP (2)

- As MRP is the difference between two independent inputs (ASX and CGS), mathematically it cannot have any relationship to just one of the inputs (CGS), even when averaged.
- There is much discussion in the AER working paper about MRP but as MRP is the difference between two known but independent inputs, the major issue becomes one of best averaging the data to allow extrapolation
- Considering the excessive volatility seen, averaging the data series is challenging
- The network assets have a long life (50-70 years) so short term averaging can lead to significant errors and significant volatility of RoE over the life of the assets when trying to forecast for the near term
- The AER current approach for setting MRP is to value it as a longer term arithmetic average of annually assessed MRPs

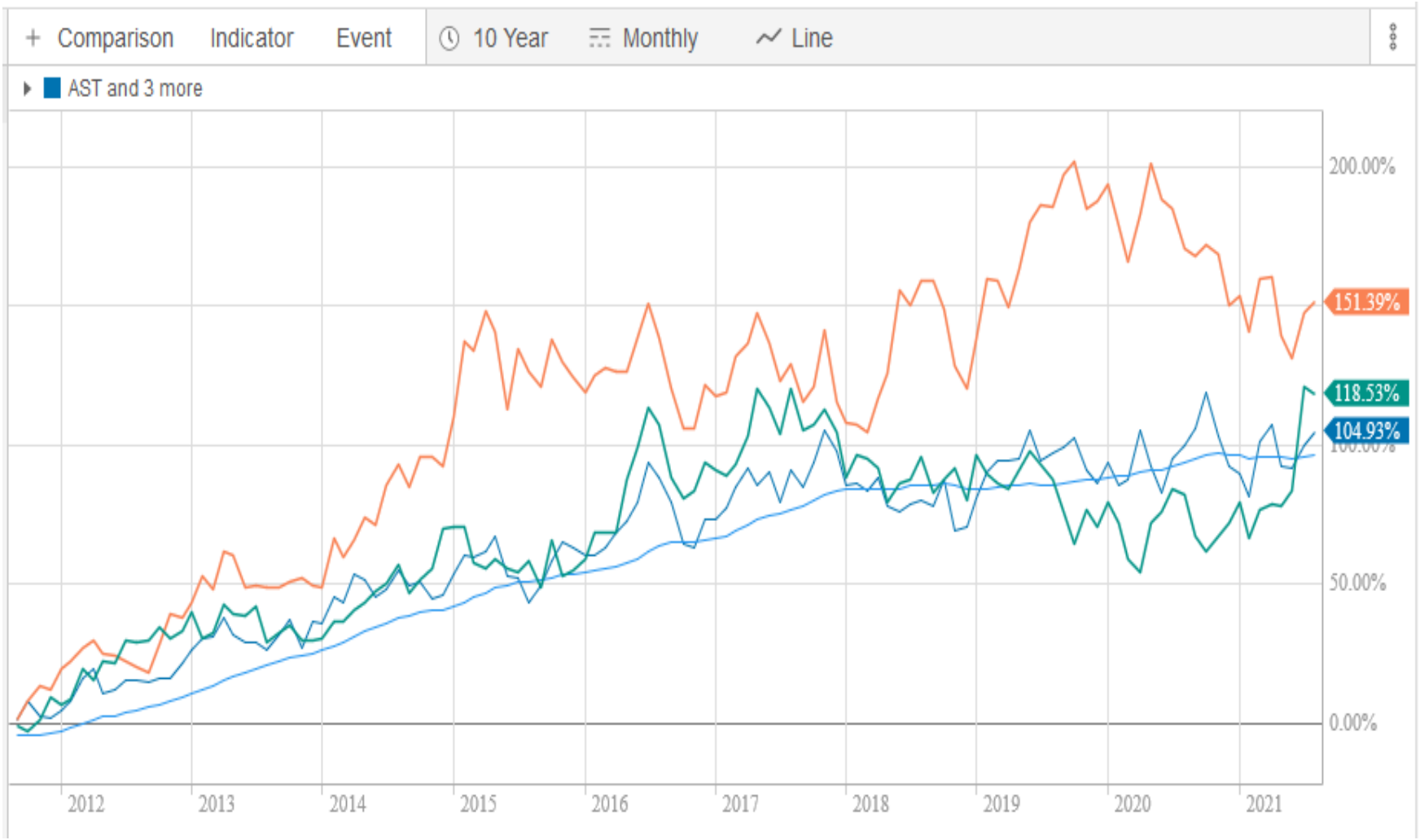
Valuing the MRP (3)

- In its assessment of whether to use 5 or 10 year CGS as the RFR, the AER expressed a view that networks effectively make an investment between the start and the end of the regulatory period (ie every 5 years) leading a view that the RFR should be based over the same timeframe ie using a 5 year CGS
- Accepting the networks notionally invest for the regulatory period effectively the expected return for the period is the geometric average of MRP over the 5 year period – this smooths annual volatility
- Because the networks get a review each 5 years of the RoE, this means that the 5 year geometric averages should be arithmetically averaged over the longer term to provide a long term view of what the MRP should be to reflect the long life of the assets
- So MRP should be the arithmetic average of geometric averages of annual MRPs for each 5 year period. This delivers significantly lower volatility, making it more practicable to set a longer term average and so extrapolate

Annual MRP average geometrically over 5 year periods



Movement of Spark, Ausnet, APA share price



Equity beta

- In the regulatory approach, equity beta is intended to provide a view on the risks faced by regulated entities operating under Australian conditions, rules and regulations
- In reality, equity beta is a measure of the price volatility of listed shares. The previous chart shows that even with similar risk profiles, volatility of network firms' shares are quite different
- This raises two questions:
  - Does equity beta really provide a reasonable measure of the risks faced by each network firm?
  - Does short term price volatility reflect the longer term nature of investments by Australian listed network firms?
- Clearly short term volatility does not reflect the underlying risk faced by investors in long lived investments with secure cashflows
- If using equity beta as a surrogate for risk, then longer term assessments are essential

Financeability

- There has been considerable discussion as to the "financeability" of projects by some TNSPs asserting there was insufficient debt coverage in their revenues to maintain the benchmark credit rating at the RoE allowed by the AER
- MEU members also face challenges in financing augmentations to their asset base with sufficient cashflow coverage for the debt they seek so they address this by:
  - Reducing the capital needed (redesign, better procurement, taking more risk themselves rather than contracting that risk out)
  - Building in a staged manner
  - Ensuring past performance on debt servicing is excellent
  - Using their entire balance sheet as security
- The AER needs to assess whether their approach to setting RoE will be distorted by using assessments of financeability when other approaches to addressing the concern are available
- What is also overlooked is that TNSPs have incumbency which prevents others with a lower cost profile the opportunity to provide the assets.