AER Draft Rate of Return Guidelines

APGA Early Views

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Things we accept – 60% + of Draft Guidelines

- Cost of debt, despite…

Table 42 Historical credit ratings of service providers

Issuer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
APT Pipelines Ltd	NR	NR	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
DBNGP Trust	BBB	BBB	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB	BBB
DBNGP Finance Co P/L	BBB	BBB	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB	BBB

- Gearing – roughly in-line with gas businesses (ES Table 14, p.164)

Things we don’t understand - 1

- **“Not all experts were (fully) available over the course of preparing the expert joint report to present their views…..”**
  - Three times in report, on beta and MRP.
  - Symptomatic of wider problems with respect of use of expert sessions

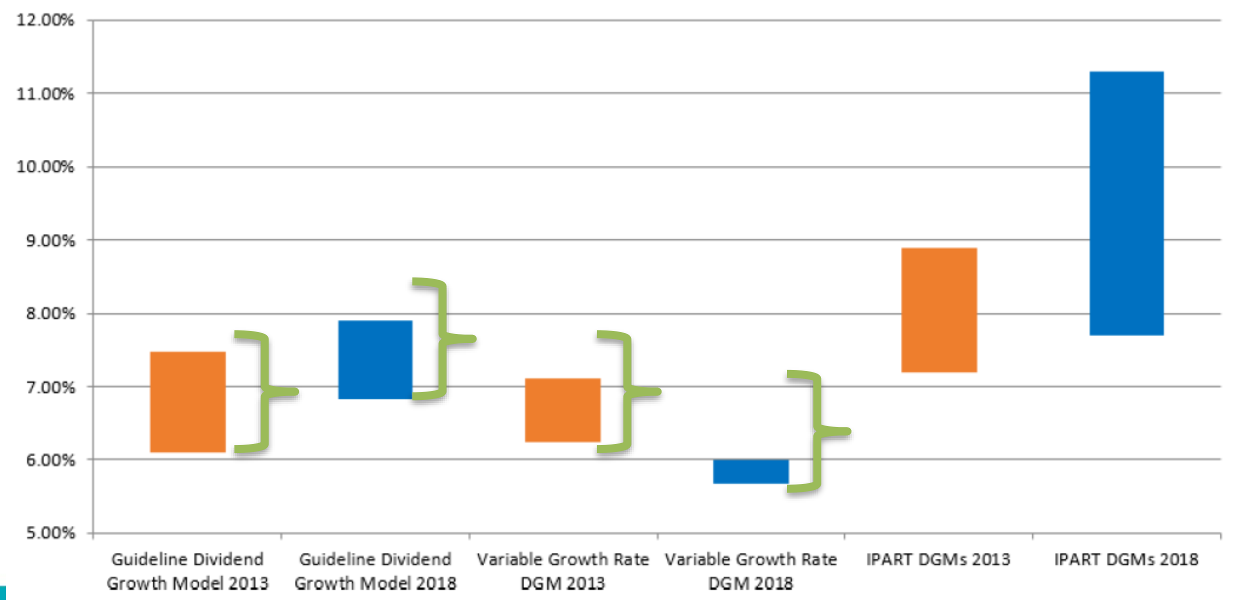
- **Whither the Black CAPM?**
    - “No change in role. However, at this time we have diminished confidence in the robustness of the Black CAPM and are…not persuaded to select an equity beta towards the top of the observed empirical estimates” (ES p.178)
    - “We have considered the Black CAPM and low beta bias. Our view is to not use the (theory of the) Black CAPM or the low beta bias when selecting our point estimate” (ES p.301)
  - Theory of the Black CAPM used in 2013, no change in theory since then. Debate has been about empirical validity of zero beta premium and use.

Things we don’t understand - 2

- **Whither the DGM – wide dividend growth rates?**
  - 2013 – 3.78 to 5.1%, now 1 to 5.5%, but lower bound appears due to Fenebris and AER’s expert said:
    - “It was noted in the submission from the ENA that Fenebris' growth rate can lead to results that seem implausible, and advice from Partington and Satchell agreed with that. The advice from Partington and Satchell also stated that whilst the general trend of the CGS rates may follow the GDP growth it has the potential to be a poor predictor when the risk free rate is particularly high or low.” (ES p219)

Green brackets are the historical MRP range

Figure 20 Results from various DGM constructions from 2013-2018



Things we don't understand - 2

- **Whither the DGM – other issues?**

Issue	question
Analyst forecasts	"The thrust of the argument is actually that if you want to know what rate of return investors are thinking about and acting on then look at surveys. That's the thrust of his argument. His argument is because behaviour follows. If you look at funds flows they follow the surveys". Session 2, unproofed transcript p89)
Analyst forecasts	CAPM biased against actual returns; ignore bias. Analyst forecasts biased against actual outcomes; ignore DGM
Inflation	Robust year long study by AER to get best estimate.
Term structure of equity	Unsure – Lally says "maybe" (ES p220)
Sticky dividends	"Frontier, in its 2018 report to the AER, submit that because the RBA data shows earnings forecasts have not fallen as much as expected in recent years that Sticky Dividend concerns should not be considered. Whilst this concern may not be an issue at the current time" (ES, p220)
Stable return on equity	See over
Dividend reinvestment	Unsure

ES p209-215 on historical MRP – where is assessment of its flaws?

Things we don't understand - 3

- **Whither the Wright CAPM?**
  - "…we consider there is neither strong theoretical reasons, nor strong empirical evidence, to support an ongoing and consistent inverse relationship between the MRP and the risk free rate. We also note the evidence since 2013 has increased our concerns about relying on the Wright approach" (ES p.235)
  - "We analysed the historical results from our construction of the DGM and found that there is as much as an 80 per cent negative correlation between the MRP estimates from the DGM and the risk free rate. This means the DGM implicitly (in its application) assumes a stable return on equity. This raises two concerns for us…

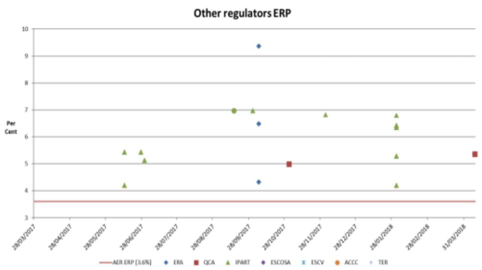
    …Firstly, this is inconsistent with our view that there is a lack of support for an inverse relationship between the risk free rate and the MRP. This was discussed at length in the second concurrent evidence session, and is covered in more detail in 0 (sic)." (ES p.221)
- **Note: not necessarily arguing for adoption of Wright CAPM, just confused as to why it was dropped**

Things we don't understand - 4

AER beta est	Wright CAPM 10.1%	Wright CAPM 12.6%
0.4	5.6	6.6
0.6	7.1	8.6
0.8	8.6	10.6

Adapted from Table 21 – AER RoE = 6.24%

Figure 11 Equity risk premium estimates from other regulators' decisions



Source: AER analysis of other Australian regulators since 2017

Figure 12 Equity risk premium estimates from broker reports

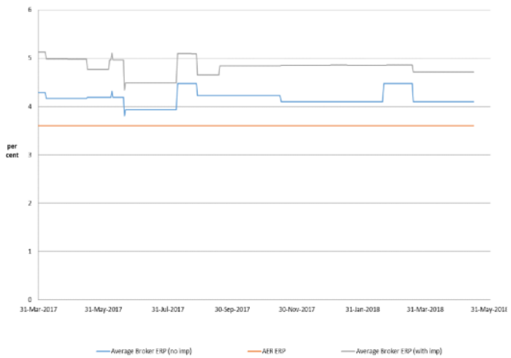


Figure 14 Equity risk premium from relevant valuation reports over time

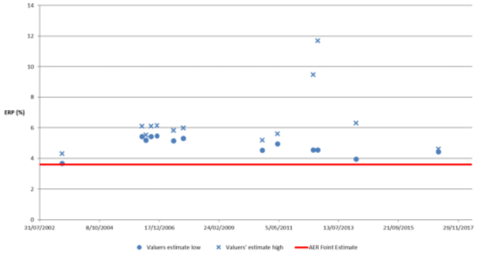


Figure 15 Comparison of ERP to DRP

Source: AER analysis, Bloomberg (BVAL) and RBA data.

"We recognise the equity risk premium ranges from the Wright approach, valuers' and other regulators' decisions are above the ERP we have estimated. By contrast, our ERP for this decision represents an increase in comparison to the DRP. Once their strengths and weaknesses of the available cross checks are considered, we do not see a case for making further adjustment to the result calculated using the SLCAPM. " (p189)

Things we don't understand - 4

Figure 15 Comparison of ERP to DRP

Source: AER analysis, Bloomberg (BVAL) and RBA data.

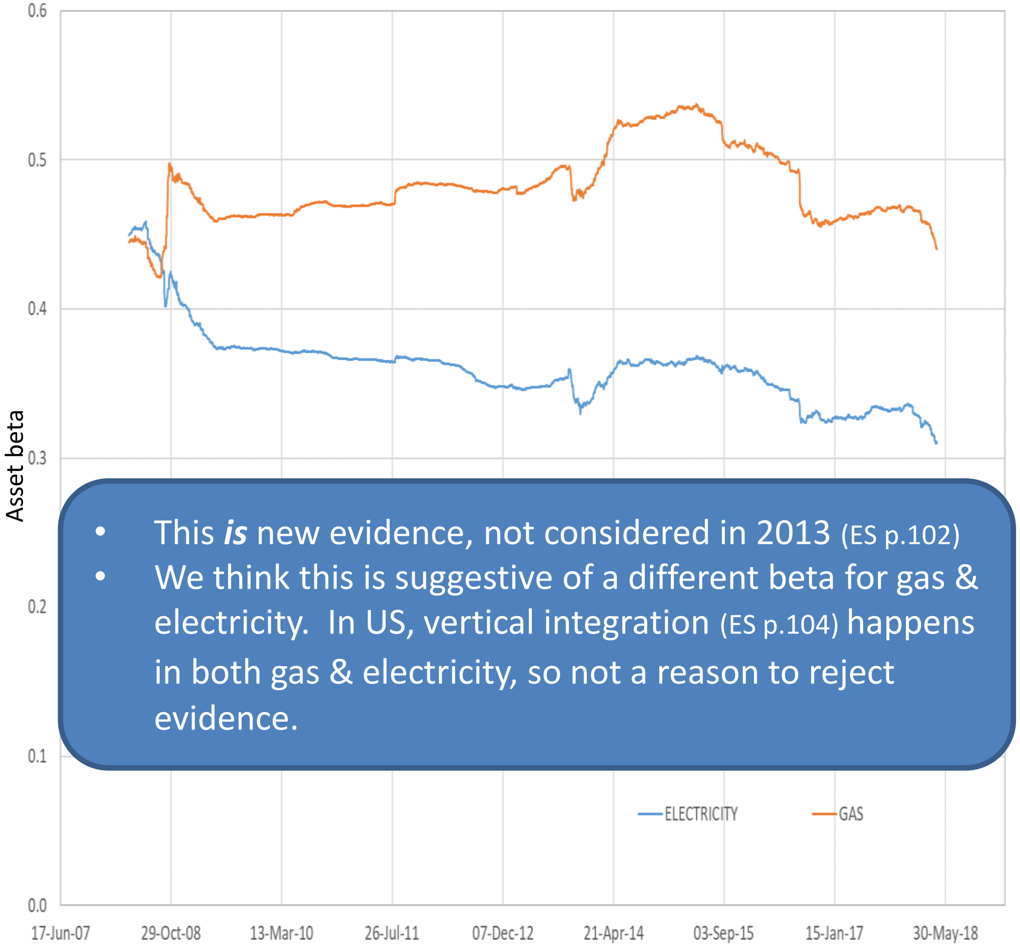
Concerns about electricity v gas - experts

- **Unsure about interpretation of expert views**

AER ref	Expert statement
"Stephen Gray and Greg Houston stated that there are differences in risk between gas and electricity businesses and that they warrant different equity betas. However, there was no agreement if equity beta would be different for different types of businesses." (p101 ES)	• "There are no strong theoretical reasons to believe that the asset betas of regulated electricity and gas businesses should be the same. • Stakeholders should be permitted to submit theoretical arguments and empirical evidence to support the case that there is a difference or, alternatively, to support the case that there is no difference between the asset betas of regulated electricity and gas businesses. • It would be open to the AER to reflect such differences in the Guideline (as the NZCC does). • Once the Guideline is set, there will be no further opportunity to change the beta allowance, so any risk differences (e.g., higher stranding risk for a particular asset) would have to be accommodated through accelerated depreciation or some other cash flow allowance." (Expert Statement p49)
"Graham Partington and Satchell's view is that it would be difficult to justify separate equity betas to different sectors of the industry and would be even more difficult to quantify this difference." (p102 ES)	"There appears to be no objective way to make such estimates, presumably the different betas would be based on the AER's judgement of the arguments presented. It is not clear that this would give the transparency often called for and could lead to concerns about uncertainty associated with the exercise of discretion." (Expert statement p49) "I take the point, all the utilities are not the same. They do have significant market power and relatively low price elasticity, so at least pretty similar revenue risks. Operating costs risks ..(not transcribable).. quite different. So, yes, there could be differences in risk. Do I think we've got any chance of reliably measuring that? No." (Proofed Transcript Session 1 p62)
"Illan Sadeh noted that differences in businesses do not necessarily translate into the rate of return, but rather the opex allowance. The point that differences may be reflected in opex was supported by Stephen Gray........ and Gray noted there may be discussions on whether risks are partially non-systematic." (p103 ES)	Sadeh: "I'll just talk about electricity, I'm not qualified to have a view on the difference between gas and electricity. But between transmission and distribution, there are differences in the businesses themselves, but I don't think they need to translate into the rate of return, because the overall regulatory framework puts them in a similar position on risk." (Proofed Transcript Session 1 p63) Gray: "MS CIFUENTES: Stephen, does that also address your point, where you were saying that the gas pipeline with the two mines at the end is vastly different to an urban electricity distribution company? The businesses need to bring that out in their proposals. Would you expect to see that addressed more at the Opex level, rather than rate of return? PROF GRAY: Yes, so some aspects of it might be Opex differences. But there may also be the point about income elasticity. That has a systematic component to it, so there could be elements of both." (Proofed Transcript Session 1 p64)

- **We think experts concluded there might be a difference in principle, but quantifying it difficult**
  - **We agree – but don't see that this leads to no difference**

Concerns about electricity v gas - evidence



- This *is* new evidence, not considered in 2013 (ES p.102)
- We think this is suggestive of a different beta for gas & electricity. In US, vertical integration (ES p.104) happens in both gas & electricity, so not a reason to reject evidence.

- Discussion on NZCC findings, but not APGA econometric work (ES p.104)
- AER ignores in Draft Guidelines that gas transmission is price capped (ES p.102)
    - Many US gas companies are revenue capped
- AER suggests risk can be addressed via depreciation; (ES p.103) but it isn't
    - APA tried 3 times; AER said no
    - Subject for further consultation?
- Credit rating differences not considered