Overall rate of return

APGA Presentation

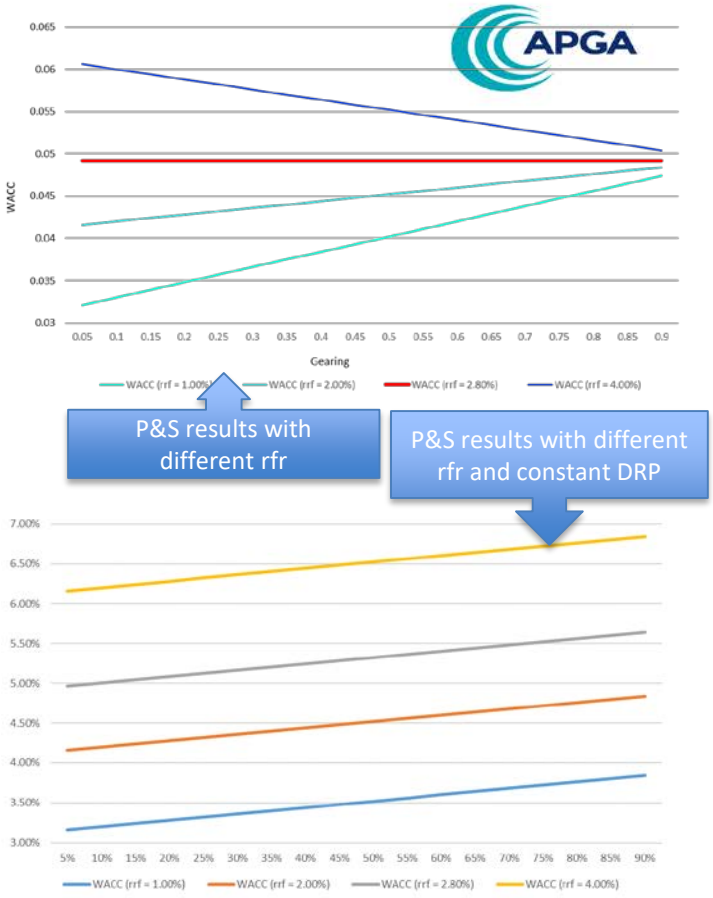
4 Aug 2021

Overview

- Gearing
  - Short – focussed on gearing and WACC
- Gamma
  - Accept, broadly, AER approach, particularly focus on ATO data.
  - Members don't get much tax allowance anymore, so hard to get excited
- Cross checks and scenario testing
  - Main focus
- Foreshadow some views about risks to gas
  - Not just related to equity, but will deal with at equity presentation because:
    - AER deals with this in equity paper
    - It gives us an extra week to prepare

Gearing

- Impact on WACC of gearing is zero only under some circumstances
  - Some unstated assumptions in Partington and Satchell
- Given how imprecise estimates of the required return on equity is, mechanistic re-levering may not be appropriate



Cross checks

- What cross checks are not
  - One model vs another
- Why cross checks are needed
  - Finance models are very imprecise
  - AER acts alone – if it doesn't check its work, who does?
  - Expected returns are not the mechanistic CAPM
- What cross checks we need
- How they should be employed
  - AER criteria assess whether you should use a cross check, not how to use them
  - A better schematic

Finance models imprecise

- Physics:
  - Deals with particles with no free will
  - Newtons laws of motion – good enough for a trip to the moon and back
- Finance:
  - Deals with human actors with free will
  - Finance models can’t predict stock returns for next week.
- If finance was physics, we would need to check only the calculations, but it’s not
  - Cross check, cross check, cross check!

Analysts and the AER

- Rob Koh presentation – explains how he uses some simple cross checks to check and change estimates, but note:
  - Many equity analysts; investors can ignore Rob if he is no good
  - Rob is independently assessed for quality, and ranked, every year
- AER's need for cross checks is greater:
  - AER is the sole estimator of allowed returns – cannot shop around
  - The NGL explicitly prohibits challenge of AER results except under extreme circumstances
- If Rob Koh fails, the consequences are small, but this is not the case for the AER

How the CAPM is used

- Partington:
  - The CAPM has “stood the test of time”
- Economic Insights (p27-8):
  - CAPM is widely used because it facilitates the use of judgement
  - Industry practitioners do not apply CAPM mechanistically, but add judgement
  - Maybe this is a reason for the low beta bias findings?
- If one is estimating investor expectations, one needs to recognise the faults in the model that they recognise
  - This means don’t assume the first mechanistic application of the model represents the best answer
  - EI suggests mechanistic CAPM for AER based on assessment of regulatory risks which are non-systematic
    - We are happy to have a debate on adjusting mechanistic CAPM for *all* non-systematic risks

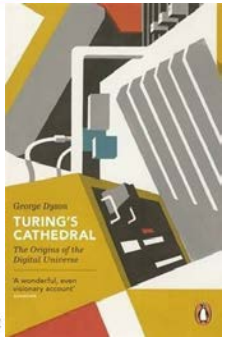
The cross checks we need?

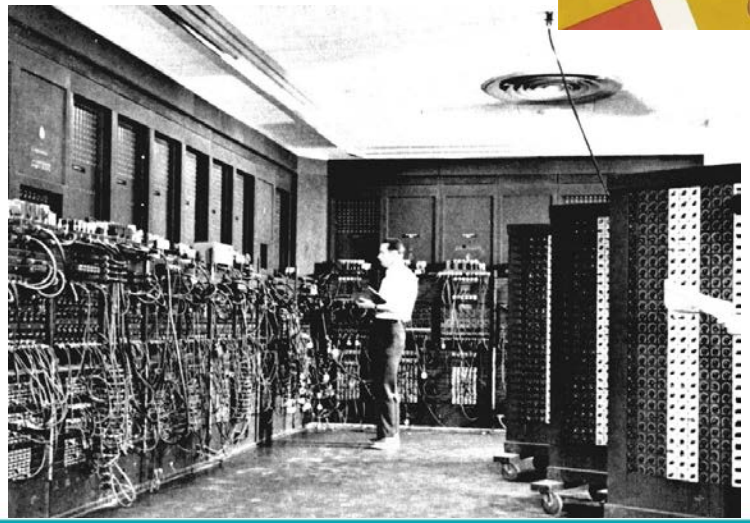
Cross check	Notes	Conclusions
RAB Multiples	Consider Coase	Theoretically suspect, empirically imprecise
Historical profitability	Looks backwards and issues with metric construction	Good test, in time, of 2018 RoRI; is this what we need?
Investment trends	Disentangling causes hard, past no guide to future	Limited use, and looks in wrong direction
Financeability	See previous submission	Useful if used correctly

Note – scenario testing is not a cross check, but is a good idea – pick a handful of economic conditions, likely and extreme, and make sure instrument is robust

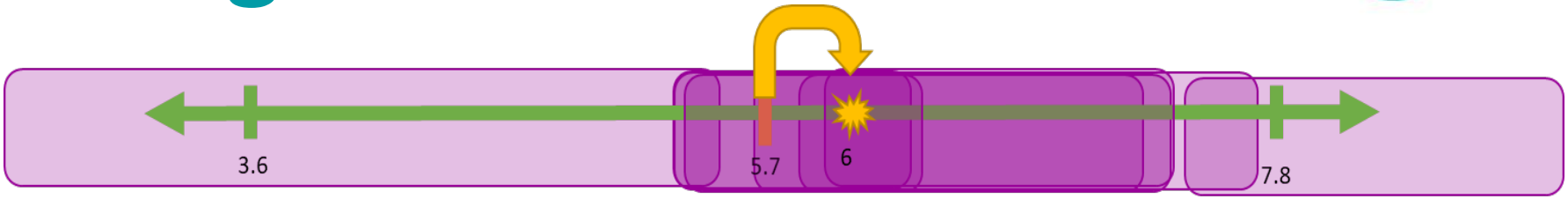
Employing cross checks

- Equity paper (p 47) considers merits of individual equity cross checks
- Overall rate of return paper (pp 50-58) summarises history of views on cross checks
- Neither paper looks at how cross checks might be used.





Using cross checks



- Step 1 – use lowest beta & lowest MRP, and highest beta & highest MRP [3.6 to 7.8]
- Step 2 – use judgement to make a first approximation (5.7)
- Step 3 – employ all cross checks as ranges (purple bars)
- Step 4 – look for range of maximum overlap
- Step 5 – revise judgement to choose point in range of maximum overlap (yellow star)

Note – at no time are the cross checks supplanting the CAPM, all they are doing is choosing a different point in the range supported by the maximum number of cross checks

Risks and gas

- Gas faces some unique challenges, and opportunities going forward
- Simple siloing of risks into systematic and non-systematic is unlikely to be adequate
  - Lally for the NZCC
  - This not a simplistic pitch for higher beta
- Need a more sophisticated understanding of what risks are and how much we know about them
- Will require several, well-evidenced tools