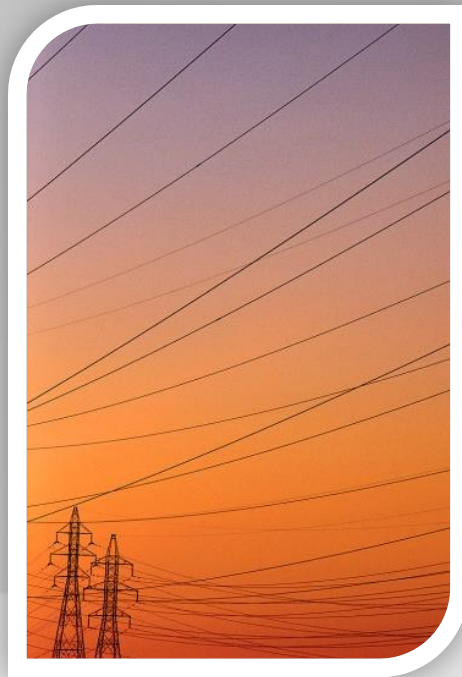


Presentation slides for AER Board  
Rate of Return Guideline Review  
Consumer Challenge Panel CCP16  
5 October 2018



# The purpose of this slide set

- This slide set complements our 102 page submission to the Draft Guideline and Independent Panel report
- We would like the Board to guide us regarding which parts of our submission they would like to discuss with us this afternoon
- The slide set can assist in that discussion
- There is no need to go through the full slide set

# Has the allowed ROR been too high under the current Guideline?

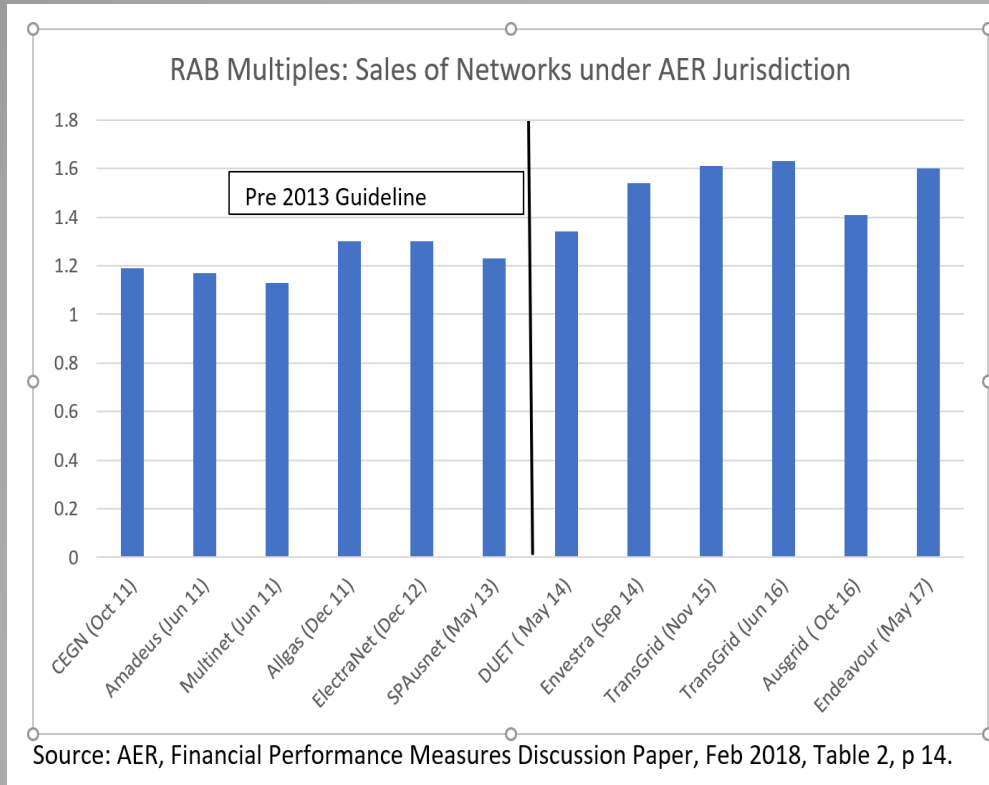
## Key points

- ROR assessed in the context of the overall outcomes
- Allowed ROR has consistently exceeded the required expected returns of the investors in the NSPs
- Persistent excess returns are not in the long-term interests of consumers
  - Excess returns should reflect exceptional performance, rather than being the norm
- Evidence: profitability data, RAB multiples, market benchmarks – all demonstrate excess returns

# Sources of excess returns

- Total excess returns (i.e. expected returns  $>$  required returns) can be split into:
  1. Expected returns exceed allowed returns
  2. Allowed returns exceed required returns
- RAB multiples show substantial total excess returns
- Profitability data provides evidence on (1)
- Competitive benchmarks provide evidence on (2)
- Excess returns cannot be solely explained by (1) or (2)
- But (2) must be a substantial contributor

# RAB multiples



RAB multiples have been rising, and are above benchmarks (around 1.3) that raise concerns for other regulators

RAB multiples of 1.4-1.6 strongly suggest excess returns

Ofgem, Ofwat giving greater weight to RAB multiples

# Actual returns compared to allowed returns

- Actual returns > allowed returns (average: +113 bp)
- Incentive payments a factor – but not the major factor

	Comparison of Actual and Allowed ROR - Average 2013-17				
	Actual (%)	Allowed (%)	Difference (Basis Points)		
			Total	Due to incentives	Other factors
Ausgrid *	5.09%	5.55%	-0.46	0.40	-0.86
Ausnet (D)	6.97%	6.14%	0.83	0.80	0.03
Citipower	6.57%	6.14%	0.43	-0.28	0.71
Endeavour *	6.88%	5.57%	1.31	0.60	0.71
Energex	7.00%	6.00%	1.00	0.24	0.75
Ergon	7.31%	5.92%	1.39	0.39	1.00
Essential *	6.61%	5.52%	1.09	0.01	1.08
Evo Energy (ActewAGL) *	6.82%	5.15%	1.67	0.00	1.67
Jemena	8.61%	6.70%	1.91	1.30	0.61
Powercor	7.85%	6.04%	1.81	0.29	1.52
SAPN	8.53%	6.67%	1.86	0.31	1.56
Tasnet (D)	8.43%	6.55%	1.88	0.09	1.79
United Energy	6.27%	6.35%	-0.08	-0.60	0.52

# Competitive benchmarks

- Competitive tenders for asset concessions provide a benchmark
- Benchmarks not available for Australia
- UK benchmarks show Bid WACC < Allowed WACC
  - Thames Tunnel (TTT) had a Bid WACC of 2.5% – less than Ofwat's indicative estimate (3.3%) and wholesale WACC (3.6%)
  - Bid infrastructure projects, such as OFTOs, indicate that specific projects can lock in a much lower [than allowed] cost of capital
- May reflect demand for these assets – but that is not a reason to provide excess returns

# Breaking it down...

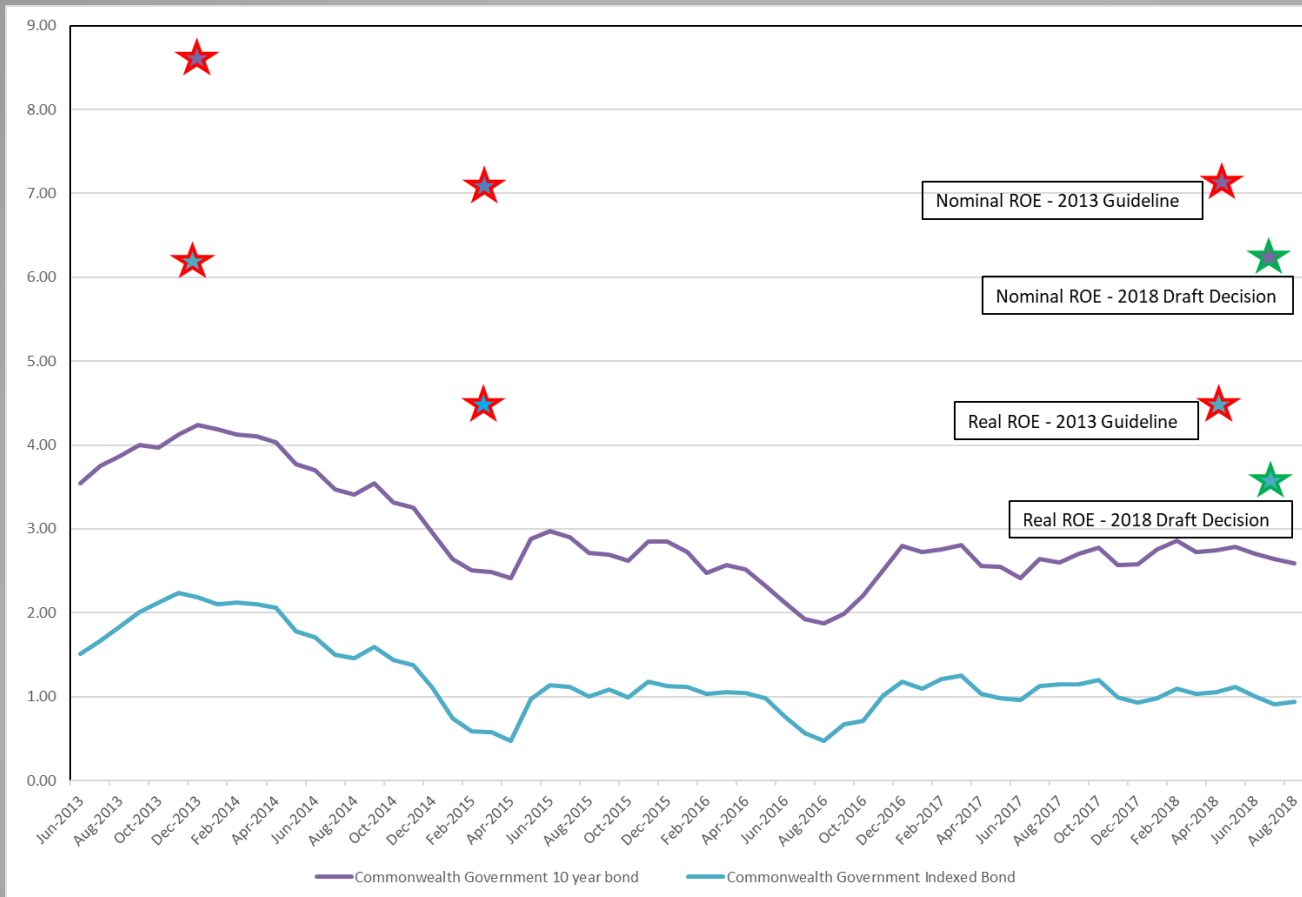
- AER should undertake further analysis of RAB multiples but...
- We can conclude that the gap between allowed and required ROR is a significant factor in the RAB multiples (as Wright et al concluded from similar evidence in the UK)
- In the case of a 50-year asset life and an allowed return of 5.5%:
  - For a RAB multiple of 1.5, the actual expected return would have to be 8.25% if the required return equalled an allowed return of 5.5%
    - This is more than double the actual difference since 2013
  - For a RAB multiple of 1.5, the required return would have to be 3.0% if the actual expected return equalled an allowed return of 5.5%
- Neither of these extreme positions appears likely. In practice, both factors are likely to have contributed to the RAB multiples
  - E.g. if the expected return exceeds the allowed ROR of 5.5% by 150 basis points (37 basis points above recent experience), the implied required return is 4.5% compared to the allowed ROR of 5.5%



# Is the DD Capable of Acceptance?

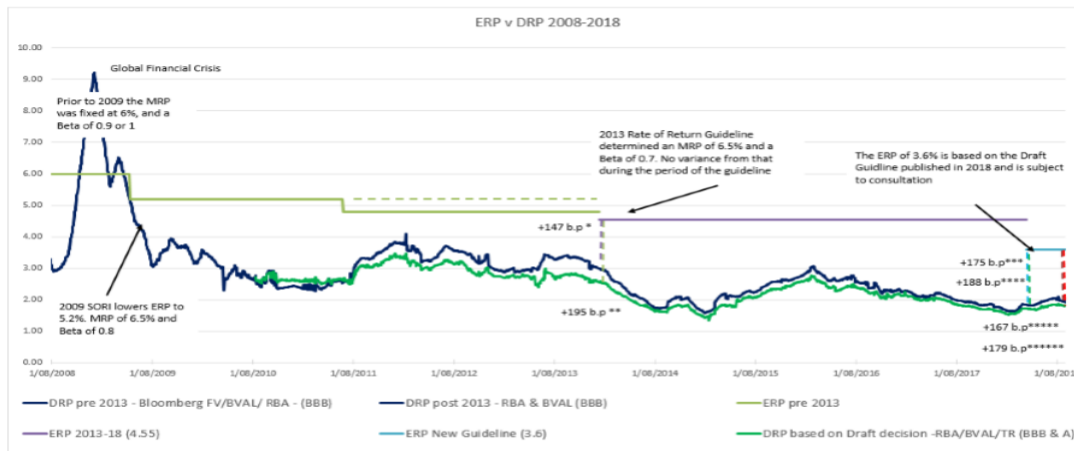
- Draft Decision: well-reasoned, cautious and prudent response to the changing market conditions and the evidence that the expected return on investment in the sector has exceeded the rate of return required by investors
- Would see a reduction in the ROE of 95 basis points, and a reduction in the overall ROR of 45 basis points (when compared to the continuation of the current ROR Guideline)
- AER would have been justified in setting a lower ROR
- DD is **capable of acceptance** given an overall tightening of the regulatory regime is underway, such as
  - treatment of tax
  - approach to the estimation of efficient opex
  - profitability review

# Most of reduction reflects declining interest rates



Consumer  
Challenge  
Panel

# Decision restores relativity of equity and debt returns



## Notes

	ERP (%)	DRP (%)	Difference basis points <sup>1</sup>
*	4.55	3.08	147
**	4.55	2.60	195
***	3.60	1.85	175
****	3.60	1.72	188
*****	3.60	1.93	167
*****	3.60	1.81	179

The basis points (bps) difference between the equity risk premium (ERP) and the debt risk premium (DRP) based on the 2013 guideline approach to estimating the return on debt (a simple average of extrapolated RBA and Bloomberg yields to 10 years) using updated closing price yield data for 17/12/13

The bps difference between the ERP and the DRP based on the 2018 draft guideline approach to estimating the return on debt using updated closing price yield data for 17/12/13

The bps difference between the draft ERP and DRP based on the 2013 guideline approach to estimating the return on debt using updated closing price yield data for 4/4/18

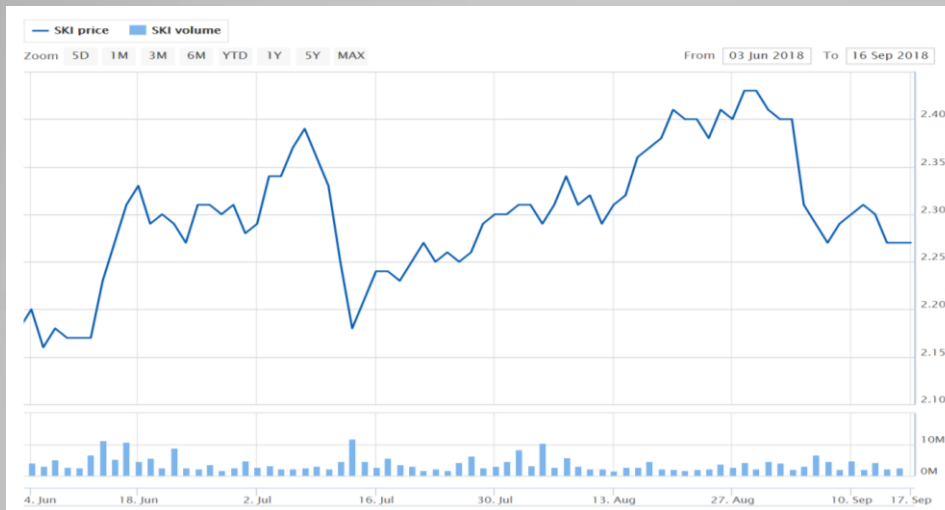
The bps difference between the draft ERP and DRP based on the 2018 draft guideline approach to estimating the return on debt using updated closing price yield data for 4/4/18

The bps difference between the draft ERP and DRP based on the 2013 guideline using updated closing price yield data for 31/8/18

The bps difference between the draft ERP and DRP based on the 2018 draft guideline using updated closing price yield data for 31/8/18

# Market reaction has been modest (given starting point)

- The brokers' reports show mild surprise at the decision. Some reduction in the ROR seems to have been expected by most observers.
- Modest initial reduction in share prices largely recovered



# Decision demonstrates consistency

- With past decisions – it is an incremental decision (see above)
- With decisions of other regulators to reduce returns
  - Ofwat foreshadowed returns of 2.40% (real, RPI-based) and 3.40% (real, CPI-based) - 133 and 33 basis points below PR14 estimate of 3.74%. Based on reduction in total market return from 6.15% to 5.1-5.5%
  - Ofgem foreshadowed reduction in returns from 6-7% to 3-5%

# Independent Panel has supported the decision

- The Independent Panel's report broadly endorses the AER's Draft Decision. For example, the Panel found in regard to:
- *Market Risk Premium:*

“The Explanatory Statement casts a wide net, collecting data from several sources and noting arguments and information from stakeholders with different interests and points of view. The Explanatory Statement has adequately considered available information relevant to estimating the MRP ... the road to the 6 per cent MRP estimate is clear and simple.”
- *Imputation credits:*

Panel considers that the AER has demonstrated that it has identified, accessed and considered the available, relevant information. It has critically assessed the merits and shortcomings of the data and made rational and well-reasoned decisions about the relevance and weight of data sources... The Panel consider that the proposed approach ... is supported by sound reasoning.

# Return on Equity

- AER's CAPM is estimate of long-term expectations (consistent with 10-year CGS / BBB+ bond horizons)
  - Longer estimation periods preferred over shorter periods
  - In particular, 5-year estimates of beta are problematic
- AER has made changes to two key ROE parameters:
  - MRP reduced from 6.5% to 6.0%
  - Equity beta reduced from 0.7 to 0.6
- CCP16 supports both these changes
- Three lines of argument to support these changes:
  - General market and financial risks
  - Empirical modelling of MRP and beta
  - 'Weighting' of different MRP and beta 'models'

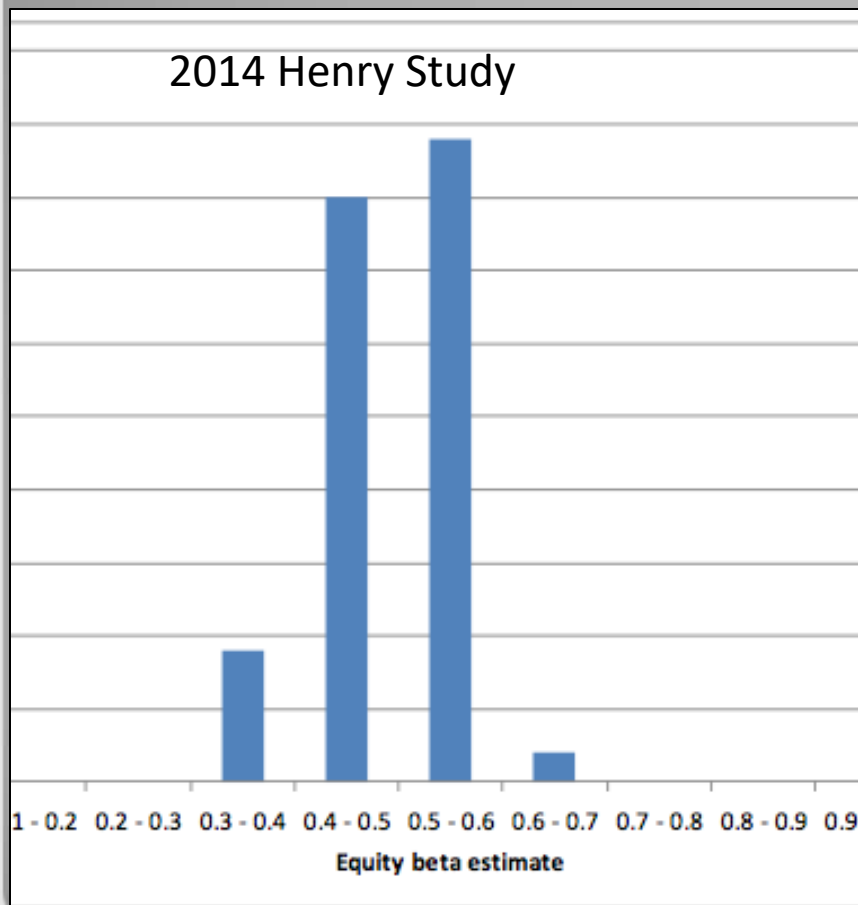
# Changes to MRP & Beta

- Market & financial risks (MRP)
  - Market and financial risks significantly lower in 2018 than in 2013
  - Evidence from measures of market volatility, profitability, share prices, RBA reviews/forecasts...
  - AER has historically been responsive to market conditions
    - See pre 2009 (6%), 2009 SORI (6.5%), 2012-decisions (6.0%), 2013 Guideline (6.5%)
- Empirical data analyses
  - MRP historical excess returns analyses consistent over time (average <6%)
  - Beta estimates (10-year) consistent range 0.4-0.7 (average<0.6) since 2009

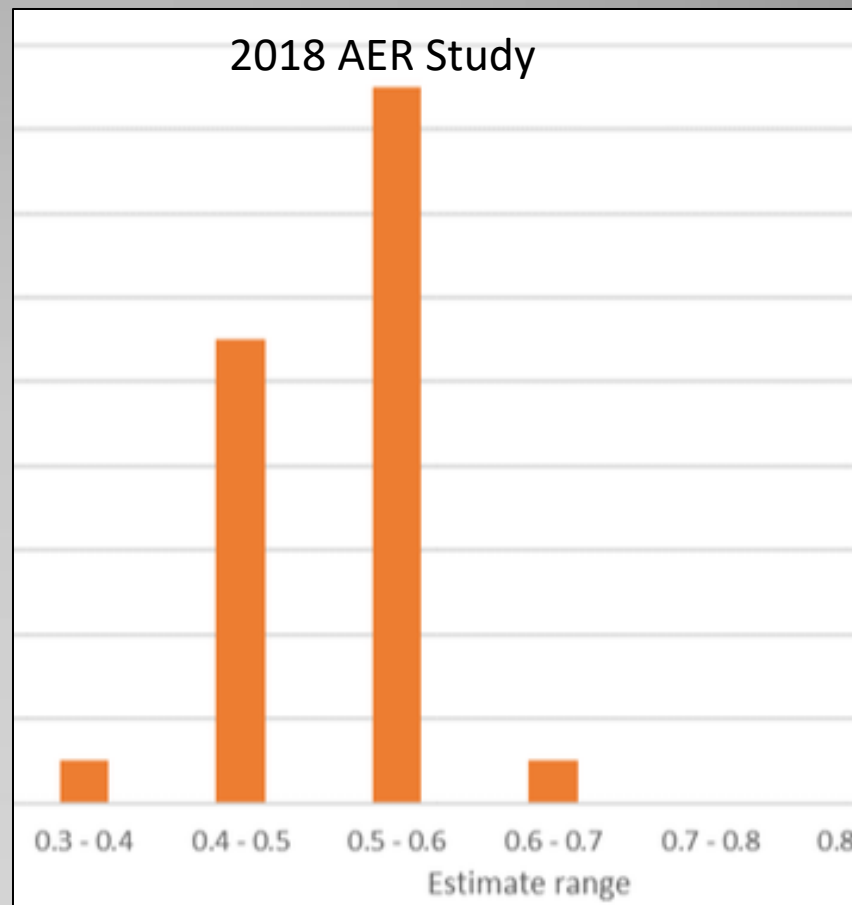


# Empirical range for beta 2014 & 2018 (re-levered weekly)

2014 Henry Study



2018 AER Study



# Changes to MRP & Beta

- “Weighting” given to other evidence re point estimates:
  - MRP: reduced reliance on DGM, due to impact of different ‘reasonable’ assumptions and counter intuitive outcome of increasing MRP
  - Beta: reduced reliance on Black CAPM/low beta bias, and no market evidence of changes in relative systematic risk
- CCP16 agrees with AER’s conclusions, but:
  - AER has not adequately explained its rejection of geometric averages (MRP)
  - Future development opportunities
    - alternative versions of DGM
    - Develop larger ‘comparison set’ for beta
    - International CAPM?

# Independent Panel (IP) recommendations: ROE

- IP confirms that AER has undertaken an extensive review that has considered all stakeholder views
  - Most of the IP recommendations seek further clarification of AER's position
- CCP16 generally agrees with IP's recommendations, e.g.
  - R6: Explain why placing any reliance on Wright approach
  - R11: Explain reliance on arithmetic averages in estimating MRP & what information could geometric average provide
  - R7/17: Clarify relevance of 'Black model' and 'low beta bias' in estimation of beta. Assess if role in overall ROE?
  - R14/15: Clarify links between MRP and (a) RFR & (b) DRP
  - R19: Explain why limiting the change in beta from 2013
- Some recommendations may require more fundamental changes, e.g.
  - R9: Justifying the use of a 10-year term for the RFR
  - R10: Confidentiality on averaging periods

# RBA Financial Stability Reviews

- 2013:

“Overall conditions in the business sector have softened over the past six months. Survey measures imply that conditions are now a bit below average in most industries; reported conditions deteriorated sharply in the mining sector following falls in bulk commodity prices through much of 2012...the softening of conditions in the mining sector is likely to have weighted on conditions in related industries. At the same time, the ongoing challenges of a high exchange rate and return to more traditional saving behaviours by householders have weighed on the manufacturing, retail and wholesale trade industries.

The softening of conditions is consistent with business profitability moderating over the past year...Market analysts continue to downgrade their earnings expectations for the coming financial year, with these downgrades having been particularly sharp for the mining sector.” (March 2013)

- 2018

“Businesses’ finances generally remain in good shape, supported by the ongoing improvement in overall economic conditions and low interest rates. Aggregate earnings of listed corporations continued to rise across most industries over the second half of 2017. The gearing ratio of listed corporations remains below its historical average and a market-based measure of default risk indicates that listed companies remain in generally good financial health...The business sectors is well placed to service its debt; businesses’ debt-servicing ratios declined over the second half of 2017, supported by a pick-up in profits.) (April 2018)