

**QUEENSLAND COMPETITION AUTHORITY  
WACC FORUM  
9:00 AM ON FRIDAY 13 DECEMBER 2013  
LEVEL 27, 145 ANN ST, BRISBANE**

## **Minutes**

These minutes record the key points and views expressed by experts/consultants of the Queensland Competition Authority, Aurizon Network, coal industry, train operators and water industry present at the WACC Forum (see Attachment 1 for a list of attendees). The meeting was hosted by Dr. Malcolm Roberts, Chairman, Queensland Competition Authority.

### **Summary**

The WACC Forum focused on two issues, namely:

- aspects of the QCA's methodological review of its approach to setting the WACC for regulatory decisions;
- the QCA's assessment of Aurizon Network 2013 draft access undertaking (UT4).

To assist in both matters, the QCA has engaged consultants, particularly Dr Martin Lally (Victoria University of Wellington) and Dr Michael Lawriwsky (Incenta Economic Consulting). Dr Lally and Dr Lawriwsky presented technical papers published on the QCA's website beforehand. These papers have not been finalised and have not been considered by the QCA's Members. A number of discussants were engaged by key stakeholders that have particular interest in the QCA's deliberations on cost of capital issues.

The Forum was intended to allow participants to better understand the issues contained in the technical papers, as well as to understand the critiques of those papers. The Forum also allowed participants to ask questions of the experts.

Any commentary provided by either consultants or QCA staff represented the views of the consultants and staff alone - they did not represent the QCA's considered views on the matters discussed during the Forum, nor were they binding on the QCA. Equally, to promote open discussion, stakeholders were not regarded as having committed themselves to a particular position when discussing, asking questions or making comments.

The presentations by the QCA's experts as well as stakeholders have been published on the QCA's website, therefore these minutes are mainly focused on the key issues raised during discussions as well as questions and answers sessions.

### **Session 1 of the Forum: Methodological Matters**

#### **Risk Free Rate and Market Risk Premium**

As the risk free rate is observable and the market risk premium is not, participants raised questions mainly in relation to the market risk premium (MRP). Queensland Resources Council (QRC) stated that there was no justification for specifying any upside or downside bias in WACC parameters, including for the MRP. Another discussant noted that the approach set out by Lally (2013), and adopted by the QCA in the past, produced an estimate over time of 6%. This estimate is based primarily on four approaches. The discussant noted that the estimate would be 7% in case of only slight changes to the methodology, i.e., by using the mean rather than the median of the approaches, by desisting from the use of the Siegel method, by using 2013 Fernandez survey results instead of the 2012 results, or by using an updated estimate of the MRP from independent expert reports. Dr Martin Lally responded that one cannot take the mean instead of the median as the DGM estimates do not yield a point estimate, and use of the median provides protection from a significant error in one of the methods. However Dr Lally also agreed to examine the more recent survey results that were referred to by the discussant.

Stakeholders raised further questions in relation to:

- whether it was possible to vary the weights applied to various methods?

- if the NPV=0 principle holds, should the MRP be based on a forward-looking basis, i.e. forecast for the next few years?
- should the mean be rounded to the nearest full percentage point?
- should more recent data be given more weight?

In respect of the first point, Dr Lally thought that the optimal weights across various methods were unlikely to be equal but there was no clear basis upon which to establish such differential weights; accordingly, he favoured equal weighting across those estimation methods that were invoked. In respect of the second point, Dr Lally agreed that the MRP estimate sought is forward-looking but historical data was one method of obtaining such an estimate. In respect of the third point, Dr Lally favoured this level of rounding to avoid frequent changes in the estimate arising largely from estimation error, and therefore also to discourage contentious debates about issues that would alter the MRP estimate only slightly. In respect of the fourth point, Dr Lally considered that the most recent estimates were the best, as in survey data from 2013 being superior to that for 2012 when seeking to estimate the forward-looking MRP in 2013.

## Cost of Debt

The discussion on the cost of debt was in relation to two key issues presented:

- (a) the methodology suggested by PwC (2013) and
- (b) the methodology under a trailing average cost of debt portfolio approach.

The first question on the PwC methodology was how to deal with the problem if two different methods (i.e., econometric methodology and extrapolated Bloomberg approach) produce two different estimates. Dr Lawriwsky responded that there would need to be further analysis to understand the reasons for the differences.

Another set of questions on (a) was in relation to Bloomberg data and approaches. In particular, it was noted that the quality of the Bloomberg data should be tested to confirm that it reflects the market's opinion (e.g. "bank feeds") and is up-to-date. Dr Lawriwsky indicated that Bloomberg data had a history of underestimating the cost of debt (and sometimes overestimating it), and so suggested it was best to apply more than one estimation method.

In relation to (b) the key questions were in relation to possibilities of the 'windfall gain' due to mismatches in allowance for debt and actual cost as well as possible material variations in the benchmark vs actual estimates (in case of e.g. substantial capital expenditure). The presenter of the trailing average approach responded that various transitional methods can remove this risk, e.g. a gradual phase-in over 10 years as well as weighting, otherwise the problem is very similar to the 'on the day' approach. SFG argued, if this method is to be introduced, regulators must give businesses advanced notice and use a phase-in period.

## Gamma

The discussion on gamma was mainly related to two key points:

- (a) the data issues and
- (b) Aurizon Network's suggested gamma value of 0.25.

In relation to (a) SFG suggested an approach of deleting outliers in pairs (i.e., the greatest outlier above the line of best fit and the greatest outlier below the line). Other experts did not agree with that approach, and observed that the conventional approach was to delete the most extreme outliers without regard to whether they were above or below the line of best fit. Using this approach, deletion of the most extreme 1% of observations approximately doubles the estimate of theta in SFG's most recent dividend drop-off study. The suitability of ATO data was also discussed - this issue is reflected in the presentations.

As to (b), the gamma estimate of 0.25 is based on the distribution rate of 0.7 (consistent with stakeholders submissions based on ATO data) and theta of 0.35 (consistent with SFG's most recent dividend drop-off study). Some participants noted that there is a volume of new evidence that has become available supporting a gamma value of 0.5. For instance, QRC said further work has been done by the AER since the ACT decision. SFG argued that the AER just 're-badged' what was used in the ACT case and has not produced new evidence or analysis.

## Session 2 of the Forum: Aurizon Network Specific Matters

### 2013 DAU WACC Framework Issues

The QRC emphasised that they do not support the Aurizon Network's UT4 proposal in relation to the Framework issues within the context of the pricing principles in the QCA Act. These framework issues mainly are: the legislative requirements, the investor's perspective, Aurizon Network's commercial and regulatory risks, the application of the 'NPV equals zero' principle, estimation error and the financial market conditions.

### 2013 DAU Cost of Debt Issues

The key discussion was around the efficient term of debt and the refinancing risk. In particular, the QCA adopted the approach that the firm would issue debt with a term that is consistent with prudent financial management and incur transaction costs associated with issuing this debt. Incenta Economic Consulting suggested that the benchmark debt term of 10 years continues to be appropriate for the Aurizon Network. Incenta Economic Consulting also stated in their report that Aurizon Network recently issued its BBB+ rated domestic bond, which has a term of 7 years to maturity.

QRC's expert addressed a question to Aurizon Network of why they could not go for a longer term debt recently. Aurizon Network responded that that was due to recent restructuring within the company. QRC also noted the Bloomberg estimates seemed to be 'bang-on' the cost of debt actually issued by Aurizon Network.

Another stakeholder, working in the same coal chain as Aurizon Network, suggested that higher refinancing risk does not mean longer term debt. The stakeholder noted that, for instance, the company may have gaps in the debt expiring profile and then the question is what would be the prudent efficient term of debt to fill those gaps. The experts advised that the 10-year benchmark term of debt is likely to be average.

It was also discussed that it would be a difficult exercise to align the term of debt with the efficient company's practice (i.e., if the efficient practice suggests 30 years).

### 2013 DAU Cost of Equity Issues

The discussion was mainly around the systematic risks of Aurizon Network as these risks determine the equity beta estimate as well as cost of equity. The experts agreed that the cost of equity is generally higher than the cost of debt.

Aurizon Network compared the UT4 proposed equity margin estimate to a set of benchmarks. Aurizon Network suggested that the UT4 proposed estimate is lower than the one in the Hunter Valley Coal Chain. Aurizon Network also noted that under-investment risk is significant under, for example, QRC's scenario and in that case the UT4 return would represent the lowest position of any market-traded company in Australia, which is not sustainable and not credible. The stakeholders noted that Aurizon Network cannot be compared to US Class 1 railroads, as even though the assets and the nature of service is similar, the risk profile is different.

Dr Lally questioned whether political and regulatory risks suggested by Aurizon Network were systematic. Aurizon Network responded that it considered there was at least some degree of relevant correlation.

The experts also agreed that the beta can be decomposed into two components – cash flows and discount rates.

## Way forward

Information gathered by QCA staff at the Forum may be used to inform the QCA's view on various cost of capital methodological issues and a position paper on pricing for Aurizon Network's proposed UT4.

Stakeholders have been invited to comment on the related papers published on the QCA's website, and presented by the QCA's consultants during the Forum.

## LIST OF WACC FORUM ATTENDEES

Dr	Malcolm	Roberts	Queensland Competition Authority
Mr	Brian	Parmenter	ACIL Allen Consulting
Ms	Jo	Daniels	Allens
Mr	Stuart	Ronan	Asciano
Mr	Dean	Gannaway	Aurizon
Mr	Samuel	McSkimming	Aurizon
Ms	Erin	Strang	Aurizon
Ms	Pam	Bains	Aurizon Network
Dr	Lucas	Kirke	Aurizon Network
Mr	Alex	Kummant	Aurizon Network
Mr	Thomas	Smeulders	Aurizon Network
Ms	Lana	Stockman	Aurizon Network
Mr	Alex	Sundakov	Castalia Strategic Advisors
Mr	Anthony	Timbrell	DBCT Management
Mr	Simon	Muys	Gilbert & Tobin Lawyers
Mr	Geoff	Petersen	Gilbert & Tobin Lawyers
Mr	Anthony	Ottaway	Gladstone Area Water Board
Mr	Frank	Coldwell	Glencore
Mr	Andre	Kersting	Gold Coast City Council
Dr	Michael	Lawriwsky	Incenta Economic Consulting
Mr	David	Kelloway	Logan City Council
Mr	Brad	Rogers	Marsden Jacob
Mr	Chris	Wicks	PN Coal
Mr	Gary	Costello	Queensland Resources Council
Ms	Christine	Ip	Queensland Treasury Corporation
Mr	David	Johnston	Queensland Treasury Corporation
Mr	Tim	Ryan	Queensland Urban Utilities
Mr	Xiao Fan	Zhuang	Rio Tinto Energy
Mr	Michael	Grimley	SEQ Water
Dr	Stephen	Gray	SFG Consulting
Dr	Jason	Hall	SFG Consulting
Ms	Jo	Blades	Synergies Economic Consulting
Ms	Pauline	Thomson	Unitywater
Mr	Adam	Johnston	Unitywater
Dr	Martin	Lally	Victoria University of Wellington