Independent Panel questions to the AER

Dates of correspondence: 14-17 August 2018

Correspondence between: Natalia Southern (Chair of Panel) and Esmond Smith (Director – Rate of Return –AER)

*Please note the Panel's requests/comments are in **black** text and the AER's responses in blue.*

The Independent Panel (Panel) wrote to the AER regarding the following (**black** text):

Questions for AER

1 **Link between MRP and Imputation Utilisation Rate (theta)**
   a. Chapter 7 of the ES (MRP) refers to Historical excess returns being "calculated using an assumed imputation value (or theta value) of 0.6" (Table 25, page 215).

   b. However, the nature of this relationship is not explained or discussed.

   This is based on our existing approach. For an example, see the explanation in Attachment 3 to our 2015 Final distribution determination for SA Power Networks (SAPN) available here (see p3-398). The historical MRP calculations used in making the SAPN determination are the same as we have used for all determinations since April 2014 and are identical to the calculations used in making the draft 2018 Rate of Return Guidelines (Draft Guidelines). We did not separately explain these calculations in the Draft Guidelines Explanatory Statement given they reflect our existing (known) method. In Attachment 3 to the 2015 SAPN determination we stated (p3-398):

   > "Post-imputation (July 1987) returns consist of capital gains, dividends and the value of attached imputation credits. However, stock accumulation indices in Australia only include returns from dividends and capital gains. Therefore, market indices implicitly attribute no value to imputation credits distributed to investors. We estimate investors value distributed franking credits at 60 per cent of their face value (see attachment 4— value of imputation credits). Therefore, we must add back the value of imputation credits to the stock accumulation index. Otherwise, we will underestimate the after-corporate, before-personal tax return on equity. 1501

   > We use the methodology applied by Brailsford et al to adjust our historical excess returns estimates for the value of imputation credits. Brailsford et al. estimated a series for the value of imputation credits. This entailed the following:1502

   - Estimating an annual series of imputation credit yields applicable to the underlying stock index.

     - For the period 1998 to 2005, using the weighted average imputation credit yield on the Australian ASX All Ordinaries index for the 12 months ending December of each year. Brailsford et al. sourced these data from the Australian Taxation Office (ATO).

- Estimating the weighted average imputation credit yield, c_t for each year, t for the period 1988 to 1997. This is because the relevant ATO data are unavailable prior to 1998.[1503]

- Adjusting the series of estimated imputation credit yields for the amount that investors value them (theta). Our adjustment is based on investors valuing distributed franking credits at 60 per cent of their face value.

The methodology applied by Brailsford et al. entails calculating the total value of returns using actual market returns, dividends and imputation credits (adjusted for the amount that investors value them).[1504] As such, we have confidence in these estimates. We note that Handley also applied this methodology when he updated the Brailsford et al. study.[1505]"

They can also be seen in the Excel spreadsheet named AER – Historical Excess Returns and Wright Approach Data – 20 July 2018, (available on our draft decision webpage here):

- Open the Excel spreadsheet referred to above.
- Open Worksheet 'BHM Rm, MRP Calculations'
- Looking at the stock accumulation index return in column H (post 1987) you'll see it is higher than the values in column D.
- The values in Column H (post 1987) are higher than the values in column D due to the inclusion of the imputation credit yield from column J in worksheet 'Consolidated underlying data' multiplied by our utilisation rate of 0.6 in cell I1 in the 'BHM Rm, MRP Calculations' Worksheet.

Also note:

- Pre 1988 we have no imputation credit yield in column J in the 'Consolidated underlying data' Worksheet. As a result the column D and column H values in Worksheet 'BHM Rm, MRP Calculations' are the same before 1988.
- Pre 1998 (from 1988 to 1997) the imputation credit yield (in column J of Worksheet 'Consolidated underlying data') was calculated as the dividend yield (calculated as column B minus column C) multiplied by the average proportion of dividends franked (in column H) multiplied by the tax rate divided by one minus the tax rate. For example, 0.036 in cell J108 =(B108- C108)*H108*(I108/(1-I108)).
- The spreadsheet available on our web page does not contain the formulas (the cell values were copied and pasted as values). A full CONFIDENTIAL version of this spreadsheet (as used in making the draft Guideline) will be made available via our confidential portal. This spreadsheet demonstrates we have applied the same method as set out in our SAPN determination.

2 **Rounding of gamma and the Distribution Rate (F)**
   a. Thank you for your email of 3 August outlining the approach to gamma rounding
   b. However, it is still unclear why it is necessary to adjust the distribution rate (from 0.88 to 0.83).
   c. Is it not sufficient to round the final gamma calculation (0.528) to 0.5, having adopted a one decimal place rounding rule?
   d. And if an "adjustment" is required, why is the DR adjusted rather than the utilisation rate?

We needed to specify point estimates of both the utilisation rate and distribution rate to ensure consistency in parameter estimates (see Draft Guidelines Explanatory Statement here p 388 footnote 1482, and pp 397, 427).

We specifically needed an estimated value for theta for estimating historical returns on the market portfolio (see response to Q1 above).

We chose 0.60 for the utilisation rate because we considered the evidence supported 0.6 and we had expert advice supporting this value from Lally (see our Draft Guidelines Explanatory Statement here pp 66, 389, 399-400, 419-424 and 439-450).

The 0.83 was then chosen to be consistent with the gamma of 0.50 and the utilisation rate of 0.60. As stated on page 67 of the explanatory statement, we use 0.83 to be internally consistent with our rounded gamma value of 0.5 and our utilisation rate of 0.60. On page 67 we stated:

> "The estimated distribution rate of the top 20 ASX listed firms from 2000 to 2017 is 0.88. This supports a distribution rate for the BEE of at least 0.88. We consider an efficient service provider127 could be expected to be able to maintain a distribution rate of 88 per cent if it elected to do so. We have used 0.83 to be internally consistent with our rounded gamma value of 0.5 and our utilisation rate of 0.60."

We use our imputation credit distribution rate to estimate the cost of raising equity funds. Under the Draft Guidelines we would use a value of 0.83 for this purpose in estimating these opex costs (that are a small part of the opex allowance). This is not set out in the Draft Guidelines Explanatory Statement, but is set out the PTRM and one reason for quantifying a distribution rate consistent with our rounded gamma value of 0.5 and our estimated utilisation rate (or theta value) of 0.6. (See for example p15 of our January 2015 final decision amending the Electricity distribution PTRM available here).

3   **10-year trailing average approach**
        a. Does AER regard the move to a 10-year trailing average approach as a decision made in advance of this guideline?
        b. Or is a choice about this part of the 2018 determination?

While the decision was made to move to a trailing average in the prior rate of return Guideline made in Dec 2013, this prior decision is not binding on the AER in this Guideline process. Our obligation is to reach a decision that we are satisfied will, or is likely to contribute to the achievement of the NEO and NGO and which meets the rate of return objective (see Draft Guidelines Explanatory Statement pp30-31).

Key decisions with respect to the move to a 10 year trailing average (as part of the 2018 Draft Guidelines) were (see Draft Guidelines Explanatory Statement pp 55-56):

-   To move Service Providers (SPs) not yet on a trailing average to a trailing average with a revenue neutral transition
-   To continue the transition of SPs that had already commenced transition

However, we had regard to the prior Guideline decision (made in Dec 2013) and subsequent AER regulatory determinations to move SPs to a 10 year trailing average in making the 2018 Draft Guidelines (see Draft Guidelines Explanatory Statement p 56).

4   **Confidentiality of debt averaging periods**
   a.   The Panel understands that confidentiality is required ex-ante.
   b.   But is it a requirement of the draft guideline that confidentiality is maintained after the averaging period has concluded?

The Draft Guidelines requires any averaging period to be kept confidential after the averaging period has concluded (see Draft Guidelines Clause 17).

5   **Service Providers' debt**
   a.   Could Chairmont be asked to collect data on the characteristics of the **stock** of debt held by the service providers, rather than debt issuance.
   b.   This would inform the discussion on the appropriate term of debt.

The AER has the power to collect the information it requires to fulfil its regulatory obligations. Therefore, assuming it was relevant to determining the appropriate benchmark term of debt and this was relevant to determining the return on debt, the AER could ask the SPs for this information. The AER could then analyse it itself or have Chairmont or another consultant analyse it.

14 August 2018

22 August 2018