

Memorandum

To: Greg Ruthven and Johan van Niekerk, IMO
Copy to: Ray Challen, PwC
From: Julian Widdup
Date: 2 January 2012
Re: MRCP Weighted Average Cost of Capital Workshop

Set out below are some key questions we would like to table for discussion at the MRCP WACC workshop to be hosted by the IMO and PwC on 4 January 2012. The purpose of sending these to the IMO ahead of the workshop is to allow the questions to be considered and discussed more comprehensively at the workshop.

1. We understand the annual WACC parameters (nominal risk free rate, inflation, real risk free rate, debt risk premium and the corporate tax rate) will be revised prior to the final MRCP determination and anticipate that more updated estimates may be provided verbally at the workshop. Has the IMO sought any advice from PwC (or others) on whether the other WACC parameters including the equity risk premium and equity beta are appropriate?
2. We note that the risk free rate is to be calculated as an average of bond yields over a 20 day period. Can the IMO discuss what twenty day period is to be used in the final determination and how that particular period will be chosen?
3. We would also welcome advice on what periods would be used for resetting the inflation and debt risk premium. For example, will those parameters also be based on actual data points over the same 20 day period?
4. At a high level, the proposed fall in WACC appears to us to be counter-intuitive.

According to finance theory, a fall in WACC should coincide with an increase in asset prices. However asset prices generally (particularly listed shares, property, etc) have not increased in value over the past 12 months. In fact, the share market is well below levels it was at 12 months ago. This suggests to us that equity discount rates have generally increased, driven by an increase in the risk premium. Figure 1 (attached) indicates that the current risk premium for the Australian share market is around 10% on a pre-tax basis. This increase in the equity risk premium would more than offset the fall in the risk free rate resulting in an increase WACC. To lock in a 6.0% market risk premium and low beta factors for five years, while seeking to review debt parameters annually has the potential to unfairly bias the MRCP.

We would welcome PwC's thoughts on whether a risk premium of greater than 6% should perhaps be applied or whether there may be more fundamental shortcomings with the current building block approach to setting the WACC.

5. We would welcome PwC's thoughts on whether there would be sensible grounds for market participants to suggest the IMO increases the asset beta above 0.5 in light of the following points:
- The 4.26% debt risk premium exceeds the 3.0% asset risk premium (asset beta multiplied by market risk premium).
 - The pre-tax 8.63% cost of debt (debt risk premium plus risk free rate plus debt issuance costs) exceeds by a significant margin the pre-tax return to an equity investor of 7.85% (calculated as R_e less 30% corporate tax and after adding back franking credits). This result appears contrary the CAPM fundamentals.
 - The volatility in the MRCP is higher than the volatility experienced in listed markets. The proposed 31% reduction in the MRCP is significantly greater than the fall in equity markets over the past 12 months. This would suggest the beta of a WEM generator should be well above 1.0.
 - Using the following formula and historical MRCP we calculate that the asset beta should be 0.61 and the equity beta to be 1.02:

$$\text{Asset Beta} = \text{Covariance (MRCP returns, market returns)} / \text{Variance (market return)}$$

6. We remain perplexed as to how the debt risk premium could have reduced by 1.0% over the past 12 months given the recent movements in bond prices and credit default swaps (CDS). In particular, we note that CDS rates have increased significantly for AA rated Australian banks as well as for BBB corporate bonds over the last year. Figure 2 below shows the Westpac 7 year CDS rate has recently exceeded the highs experienced at the peak of the GFC in 2008. Can PwC discuss whether it has the ability to reconsider the methodology used to determine the debt margin and discuss how it extrapolated from the 7 year corporate bond yields to derive a ten year rate?
7. We note that section 2.9.8(k) of the MRCP market procedures specify that the inflation parameter is to be the forecast average inflation rate for the next ten years, using forecasts of the RBA. Using the Commonwealth Government ten year nominal bonds yields and the inflation linked bonds yields published by the RBA, we calculate the expected ten year average inflation rate to be 2.1% based on the following:

$$\text{Projected inflation} = (1 + \text{nominal government bond yield}) / (1 + \text{real inflation linked bond yield}) - 1$$

Can PwC discuss whether it would consider this approach the best long term inflation measure, particularly as that rate is set by the market, or whether it considers a different methodology more appropriate in setting long term inflation forecasts?

Figure 1: Australian Equity Market Risk Premium (Bloomberg)

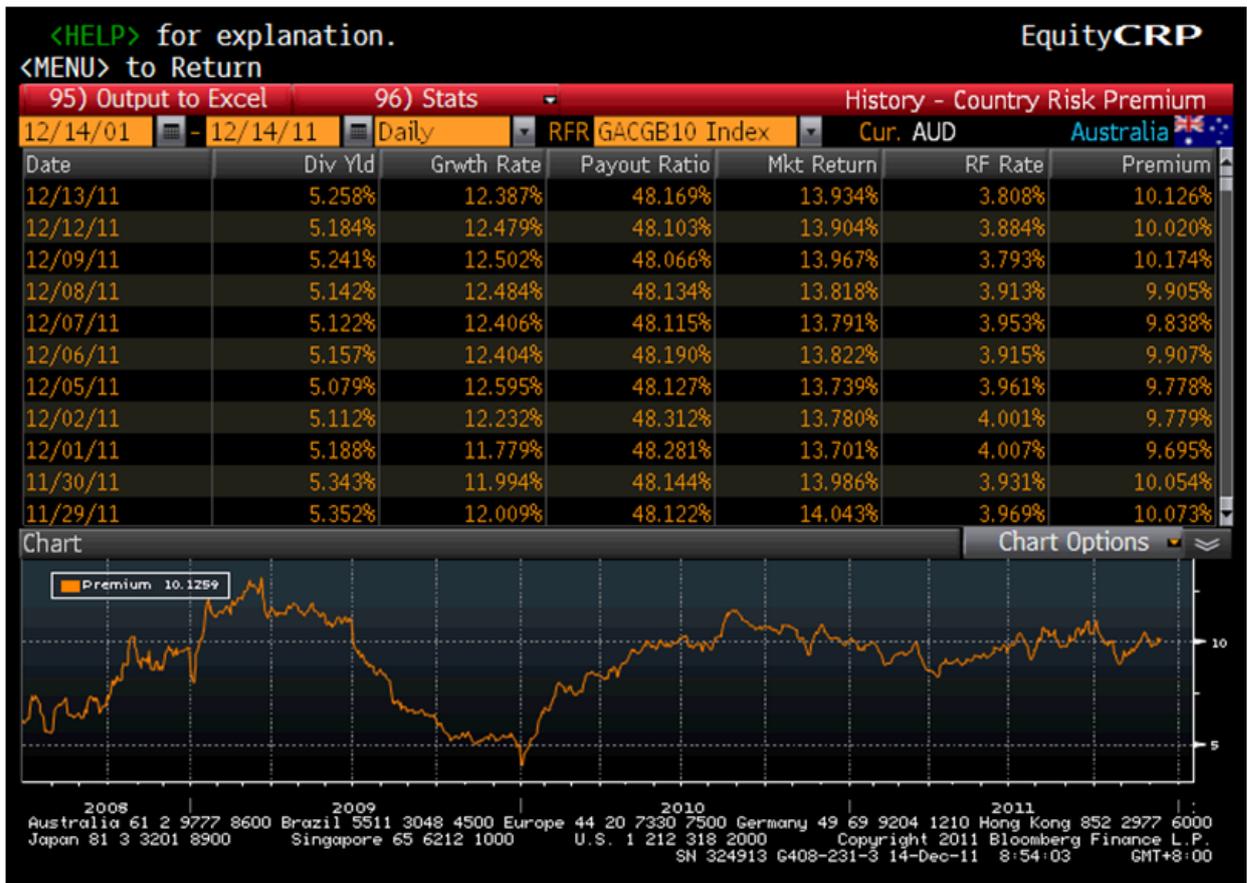


Figure 2: Westpac CDS 7 year rates



Source: Bloomberg