The Allen Consulting Group

MEMO

Date:	**Wednesday, January 6, 2010**
To:	**Independent Market Operator (IMO)**
From:	**Jerome Fahrer, Director**
Re:	**Update volatile WACC parameters**

The Independent Market Operator engaged the Allen Consulting Group to update the volatile WACC parameters i.e. risk free rate and debt margin to the most recent available data. We used the same approach identified in our October 2009 report to estimate the risk free rate and debt margin for BBB+ rated debt as at 18 December 2009.

Risk free rate

As there are no Commonwealth Government securities (CGS) with precisely 10 years to maturity, approximate yields had to be obtained through linear interpolation. First, we obtained yield data on CGS coupon bonds closest to 10 year maturity from the Reserve Bank of Australia (RBA). Second, we interpolated the data to 10-year yield for the 20 trading days up to 18 December 2009, and then calculated the average equivalent annualised yield, which amounted to 5.49 percent. We repeated the above methodology to obtain the 20-days average real interest rate, which amounted to 2.80 percent.

Debt margin

We identified four different approaches available to estimate the cost of BBB+ rated debt:

Method 1: assume 7Y spread equals 10Y spread

Estimated 10Y BBB+ yield = 10Y AAA BBG FV

+ 7Y BBB BBG FV yield

- 7Y AAA BBG FV yield

Method 2: extrapolate from available BBB+ yields

$$\text{Estimated 10Y BBB+ yield} = \text{7Y BBB BBG FV yield} + \frac{3}{2} \times (\text{7Y - 5Y BBB} + \text{BBG FV yield})$$

Method 3: apply 10Y spread from CBASpectrum to Bloomberg data

Estimated 10Y BBB+ yield = 10Y AAA BBG FV

+ 10Y BBB+ CBASpectrum yield

- 10Y AAA CBASpectrum yield

Method 4: use CBASpectrum estimated yield

Estimated 10Y BBB+ yield = 10Y BBB+ CBASpectrum yield

Table 1 shows the estimated debt risk premiums for the four different methods discussed above. Figure 1 illustrates the movements in the estimated BBB+ bond rate using different approach over the period 2007 to December 2009.

Table 1

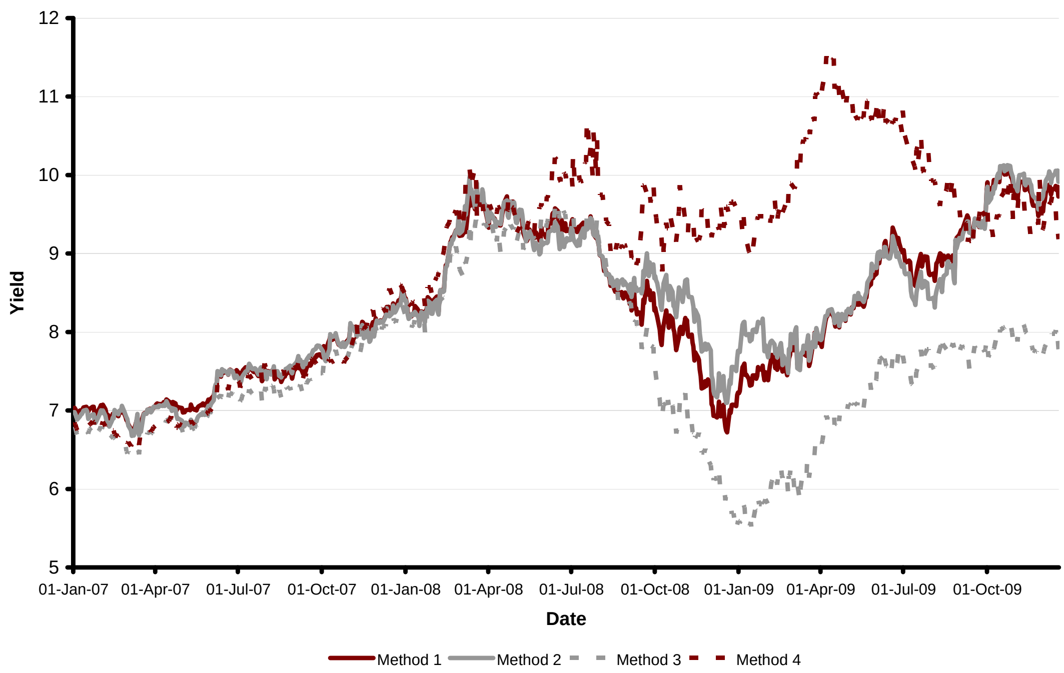
DEBT RISK PREMIUM ESTIMATES (PERCENT)

	Method 1	Method 2	Method 3	Method 4
20D Avg. Yield	9.71	9.87	7.84	9.48
Risk free rate	5.49	5.49	5.49	5.49
Debt Risk Premium	4.22	4.38	2.35	3.99

Source: ACG analysis

Figure 1

ESTIMATED BBB+ 10Y BOND YIELDS



Source: Bloomberg, CBASpectrum, ACG analysis

We noted in our October 2009 report that the estimates from Method 3 and Method 4 began to diverge, creating a lower bound and upper bound for the estimates. However, over the last two months leading to December 09, the estimates from Method 4 have converged with the estimates from Method 1 and 2. Only Method 3 remains as an outlier to the rest of the time series.

To be consistent with our approach in the October 09 report, we recommend that the IMO uses an average of 20-day yields from method 1 and 2 to estimate the 10Y BBB+ bond rates. Therefore, the debt risk premium applicable as at 18 December 2009 would be 4.30 percent and the corresponding cost of debt with a BBB+ rating would be 9.79 percent.