

**AER draft approach for measuring the debt risk premium for the  
Victorian Electricity Distribution Determinations.  
27 September 2010**

The AER is reconsidering its approach of relying on estimates from data service providers, such as Bloomberg and CBASpectrum, to estimate the debt risk premium (DRP). This late change has been necessitated by CBASpectrum's ceasing publication of its fair value estimates (communicated to the AER on 19 August) and by the decision of the Australian Competition Tribunal in the ActewAGL matter (ACT 1 of 2010) handed down on 17 September 2010.

The AER's June 2010 draft decision for the Victorian distribution network service providers (DNSPs) rejected their proposed DRP of 4.71%, derived from a linear extrapolation of Bloomberg's seven year fair value estimates. The AER concluded, after comparing the accuracy of Bloomberg and CBASpectrum's estimates against a sample of BBB+ bonds, that a DRP of 3.25% derived from CBASpectrum's fair value estimates provided the best available prediction of the benchmark BBB+ 10 year corporate bond rate.

Since then, there have been a number of relevant developments:

- the Tribunal has rejected the AER's decision for ActewAGL and directed that the DRP should be calculated by taking the average of Bloomberg and CBASpectrum curves. In its reasons, the Tribunal makes suggestions on how the AER might approach a future determination of the DRP, including widening the source of data points in distinguishing between competing curves and deriving a DRP through an averaging process where appropriate. The Tribunal also said it did not intend to discourage the AER from investigating other ways to estimate the DRP.
- CBASpectrum is no longer publishing fair value estimates, citing data reliability concerns.
- Australian Pipeline Trust (APT) has issued a bond which has characteristics of the benchmark bond rate that the AER is required to consider when setting the DRP.

Taking these factors into account, the AER is proposing to adopt an amended process for calculating the DRP, which takes into account the Bloomberg fair value estimates, the APT bond, and relevant information provided by other corporate bonds.

This is a significant departure from the draft decision and so the AER is offering stakeholders an opportunity to comment on this position and the AER's reasoning.

## **Background**

Under the National Electricity Rules (NER) the AER is required to set the DRP with respect to the Australian benchmark corporate bond. The AER's Statement of Regulatory Intent (SORI) on the revised WACC parameters (distribution) published on 1 May 2009 adopted a credit rating of BBB+ and a maturity of 10 years for the benchmark corporate bond.

The AER's recent decisions regarding the DRP have addressed issues around the transparency and construction of Bloomberg's fair value estimates (e.g. its 7 year BBB estimate, extrapolated by various means to a maturity of 10 years), CBASpectrum's 10 year BBB+ fair value estimate, and their appropriateness against the requirements of the NER regarding the benchmark corporate bond rate.

Since the global financial crisis, the AER, various regulated network businesses and their advisors have expressed concerns about a lack of market information on corporate bond yields with these characteristics, and the increasing need to trust in the methods employed by CBASpectrum and Bloomberg given their proprietary nature. In an attempt to provide some predictability and objectivity in setting the DRP using these service providers, the AER developed and refined a method for testing the accuracy of their fair value estimates using a sample of BBB+ bond yields. The information used in this testing process has been questioned by the Tribunal. The EUAA has also expressed more fundamental concerns at the ability of the AER to deliver appropriate outcomes for consumers regardless of whether CBASpectrum or Bloomberg data are used.

The materiality of these considerations is amplified in the current market environment. The AER's draft decision considered potential DRPs from the two service providers of around 330 and 430 basis points.<sup>1</sup> When these DRPs are inserted into the five Victorian DNSPs' revised proposals, the change in total building block revenue requirements is \$290 million (or 3%).<sup>2</sup>

A lack of data has recently become a critical issue for CBASpectrum in deciding to cease publishing its fair value estimates.<sup>3</sup> The AER notes that Bloomberg has not made any announcements regarding the reliability of its fair value estimates and still continues to publish its 7 year BBB estimates.<sup>4</sup> In view of the CBASpectrum decision and earlier concerns, the AER considers that it would be imprudent to place sole reliance on Bloomberg estimates given they are produced from the same type of market information as CBASpectrum.

In its recent decision on the DRP,<sup>5</sup> the Tribunal recognised that the difficulty in choosing between fair yield curves arose out of the lack of a sufficient number of long term bonds to determine yields.<sup>6</sup> It said if a basis for distinguishing between published curves could not be found, it was appropriate to average the yields provided by each curve, so long as the published curves were widely used and market respected.<sup>7</sup> The

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<sup>1</sup> This differs from the 471 basis points proposed by the DNSPs as the AER also rejected their proposed linear extrapolation method for Bloomberg estimates.

<sup>2</sup> This value was derived by replacing the DRP of approximately 4.3% in the DNSPs' revised proposal revenue modelling with the 3.3% set by the AER in its draft decision.

<sup>3</sup> Email from CBASpectrum to AER staff, 19 August 2010.

<sup>4</sup> It should also be noted that Bloomberg's BBB rated fair value curve estimates were "shortened" from 10 to 8 years in late 2007, then again to 7 years (along with its A rated estimates) in August 2009 as corporate debt has been retired and there have been few new debt issues.

<sup>5</sup> Application by ActewAGL Distribution (ACT 1 of 2010)

<sup>6</sup> Para 72.

<sup>7</sup> Para 78.

Tribunal also said it did not intend to discourage the AER from investigating other ways to estimate the DRP.<sup>8</sup>

Given recent developments in this area, it has become necessary for the AER to examine other ways to estimate the DRP.

### **The merits of the APT bond as a proxy for the benchmark corporate bond**

The recent APT bond issue is a 10 year, fixed coupon BBB rated bond. In summary, the AER considers it potentially provides a preferred source of yield information over the alternative derived from using Bloomberg fair value estimates:

- There has been some uncertainty over the reliability of Bloomberg and CBASpectrum estimates in the past. As a result, the AER and regulated businesses have undertaken various testing and cross checks of their estimates in all of the AER's consultation processes.
- For some time the AER has been relying on Bloomberg's estimates for BBB rated bonds (rather than BBB+), and furthermore extrapolating these to 10 years to augment its information in determining an appropriate DRP. Both practices have been practical but not ideal. CBASpectrum's recent decision to no longer publish its fair value curves raises further concerns over the transparency of the estimates produced by Bloomberg and the prudence of now relying on them as the sole or primary source of information for determining the DRP.
- Prima facie, the APT bond represents a useful benchmark corporate bond rate insofar as the yield calculation is transparent, it reflects a 10 year maturity, and it provides an acceptable proxy for the BBB+ credit rating. Indeed, its BBB rating means that its yields would be expected to produce a conservative estimate of the DRP.
- Furthermore, the nature of the APA Group's investments and markets provide a close match to those of electricity network service providers. Such industry specific comparisons potentially become relevant when setting the required weighted average cost of capital under the NER.

For these reasons the yields on the APT bond are likely to provide a close match to those of the benchmark corporate bond, however as it is only one relevant observation this proposition must be tested against other relevant information. Furthermore, Bloomberg estimates still potentially provide important information which can also be used in setting the DRP, but must also be subjected to appropriate scrutiny.

### **Commentary on NER/ NEL requirements**

Clause 6.5.2(e) of the NER defines the DRP as:

...the premium determined for that regulatory control period by the AER as the margin between the annualised nominal risk free rate and the observed annualised Australian benchmark corporate

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<sup>8</sup> Para 79.

bond rate for corporate bonds which have a maturity equal to that used to derive the nominal risk free rate and a credit rating from a recognised credit rating agency

Regarding the credit rating, during the WACC review the AER applied a best comparator approach and adopted a credit rating of is BBB+ for determining the DRP. The SORI also determined that the nominal risk free rate would be determined on a security with a 10 year maturity.

The cost of capital is described under clause 6.5.2(b) as “the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the distribution business of the provider”.

Using the yields on the APT bond to set the DRP would contribute to cost of capital that is consistent with clause 6.5.2(b). This is because the similarities between the network infrastructure businesses owned and operated by the APA Group would reflect a similar nature and degree of credit default risk as the benchmark electricity network service provider. While the risk of credit default is expected to be captured in the credit rating, ratings opinions are not intended as guarantees of credit quality or as exact measures of the probability that a particular issuer or particular debt issue will default. Investors use further complex tools to analyse the debt issuer and the setting within which it operates, to fine-tune their risk analysis. For this reason, industry specific factors may become relevant under clause 6.5.2(b).

In addition, the AER must take into account the revenue and pricing principles when exercising a discretion in making those parts of a distribution determination relating to direct control services. The revenue and pricing principles are set out in section 7A of the NEL. Those principles relevant to the current situation include:

- (2) A regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in —
  - (a) providing direct control network services...
- (3) A regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides. The economic efficiency that should be promoted includes—
  - (a) efficient investment in a distribution system or transmission system with which the operator provides direct control network services; and
  - (b) the efficient provision of electricity network services; and
  - (c) the efficient use of the distribution system or transmission system with which the operator provides direct control network

While the yields of the APT bond may be expected to, *ceteris paribus*, produce a return on debt that is close to but conservative relative to the that of the benchmark efficient DNSP, it reflects only one observation and thus cannot be solely relied upon to set the DRP. Similarly, the lack of transparency in Bloomberg’s estimates does not allow one to conclude whether it is reflective of the benchmark corporate bond. It is further noted that there is a clear divergence in yields from both sources, which is not readily explained by other information on long dated bonds.

## **Commentary on other relevant information sources**

The APT bond appears to be preferable proxy for the benchmark corporate bond, as it provides a close match for the 10 year maturity and BBB+ rating, and is also readily observable. However it is only one bond. Conversely, Bloomberg's 7 year BBB fair values appear to reflect a variety of potentially relevant market data, yet its derivation is not transparent and also requires extrapolation to a 10 year maturity.

The Tribunal's recent decision highlights the need to take account of a wider variety of information sources when scrutinising alternative methods to estimate yields on long dated benchmark corporate bonds. For these reasons the AER has compared the spreads on the APT bond, Bloomberg's seven year and extrapolated<sup>9</sup> 10 year BBB fair value estimates with spreads on other long dated bonds.

Figure 1 compares the average spread to CGS for the dates 1 August 2010 to 21 September for all bonds which have the following characteristics:

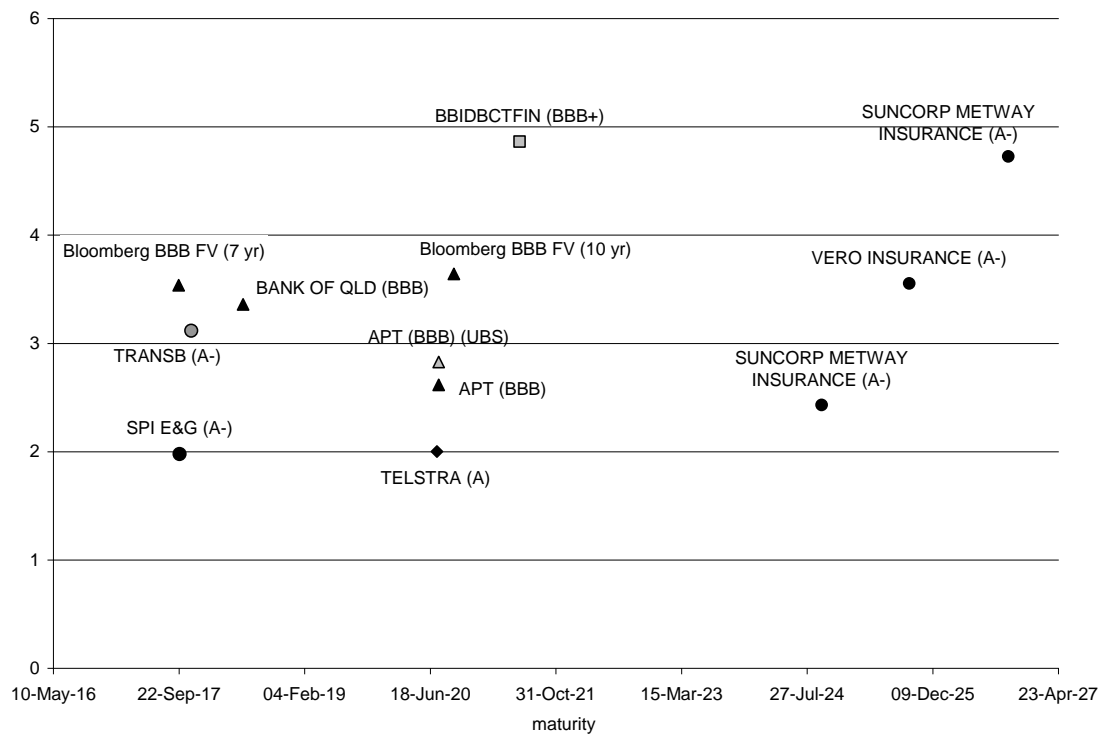
- credit ratings ranging from BBB- to A
- a maturity which is currently longer than 7 years
- observations which were reported on either Bloomberg or UBS.

This sample includes two floating rate bonds (BBI and Transurban) (converted to fixed rate equivalents), however the AER is still considering how much information can be reliability drawn from such bonds. Also note that yield information was reported on both UBS and Bloomberg in the case of the Telstra, SPI and APT bonds, however only UBS yields for the APT bond are separately reported as the others were not materially different between the two sources.

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<sup>9</sup> Using the change between Bloomberg's 7 and 10 year CGS estimates. This is discussed below.

**Figure 1: Spreads on long dated bonds**



While the AER has endeavoured to take in a wide variety of yield information on long dated bonds, this has still only produced a relatively small sample for comparison in this case. Nevertheless, the AER makes the following general observations:

- The BBB rated APT bond has a higher spread than the A- rated Telstra bond, both maturing in 2020. Significantly, the difference in spread is consistent with the credit ratings.
- The location of BBB observations (including Bloomberg’s fair values) are generally higher than the A and A- rated bonds, with the exception of the longest dated Suncorp Metway Insurance and Vero Insurance bonds, which is again consistent with the credit ratings.
- The spread on the BBB rated Bank of Queensland bond is below but roughly consistent with Bloomberg’s BBB 7 year fair value. The extrapolated 10 year fair value is almost 100 basis points above the spread of the APT bond. Possible explanations for this include:

- problems in the extrapolation method. At face value, the AER’s extrapolation method raises fewer concerns than the alternatives considered by the DNSPs and its consultant, PriceWaterhouseCoopers (including linear extrapolation) which produce spreads that are even higher.
- Bloomberg’s estimation processes have not yet incorporated yields of the APT bond, or place little weight on this bond.
- the risk attached to the APT bond is not generally reflective of bonds with a BBB rating.

- The AER has briefly examined market announcements regarding the APA Group, finding nothing to suggest business specific issues may be affecting its market perceived risk. Figure 2 below shows that the spread on the APT bond has now begun to steadily decline.
- SPI Electricity and Gas has a lower spread than the APT bond, which is consistent with its higher rating (A-) and shorter maturity.
- The two Suncorp Metway Insurance bonds and Vero Insurance bond have the longest maturity (23/09/2024, 6/10/2026 and 7/09/2025). This may explain why they have the highest spreads out of the A- bonds.
- The placement of the BBB+ rated BBI bond so far above the BBB rated observations is difficult to explain, however the AER has presented qualitative analysis in recent determinations regarding BBI which suggests limited weight should be placed on this bond in these types of comparisons.

Given the relative placement of the two BBB bonds and Bloomberg fair values amongst bonds of other ratings in this comparison, it is difficult to make definitive conclusions about the appropriateness of either the APT bond or Bloomberg's estimates in setting the benchmark corporate bond rate. Further qualitative analysis of the businesses with bonds captured in the above sample may assist in explaining potentially anomalous bond yields. The AER will also consider various means to widen the scope of information to inform this comparison in its final decision, reflecting the comments made by the Tribunal, including yield information reported from other data service providers and from bonds of shorter maturities. That said, while it may add some value, additional efforts to obtain more data on low rated long dated bonds is unlikely to produce further useful information on which to judge the appropriateness of Bloomberg or APT bond yields, given present illiquidity in the market for bonds which reflect the benchmark under the NER.

In the context of this uncertainty, the AER considers it reasonable to average the yields implied by Bloomberg and from the APT bond when setting the DRP. In this situation, the AER considers that combining the yields from both data sources is more likely to produce an outcome that is consistent with the revenue and pricing principle in sections 7A(2) and (3) of the NEL than is simply taking yield data from either source.

### **Other comments**

Regarding the extrapolation of Bloomberg's BBB estimates to 10 years, the AER's draft decision presented analysis of the mean squared difference of estimates produced by various alternative methods from Bloomberg's 10 year BBB estimate, during a period when the 10 year estimate was still published.<sup>10</sup> Based on this analysis, the AER considered that the change between Bloomberg's AAA seven and ten year fair value estimates provided the most accurate approach to extrapolation. This analysis also suggests, in the event that Bloomberg's AAA estimates are no

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<sup>10</sup> AER, *Draft decision - Victorian electricity distribution network service providers - Distribution determination 2011–2015*, June 2010, p. 522.

longer available, that Bloomberg's CGS estimates produce the next best (in terms of accuracy) method of extrapolation.

The market parameters for calculation of WACC are derived from market observations averaged over a period proposed by the relevant DNSP. These averaging periods are confidential, but are not identical. Data on the APT bond have only arisen from mid July, hence data does not exist for averaging periods which have expired or commenced before this date.

In considering this issue, the AER has examined the spreads on BBB and BBB+ bonds over 2010 (as the DNSPs' averaging periods span this timeframe) as well as the DRP that would be derived from extrapolating Bloomberg data (see Figures 2 and 3 below). This indicates that there has been no systematic or material change in the yields on these bonds as a group over this time, at least to the extent that would justify making any ad hoc adjustments in the name of achieving greater accuracy. Hence the AER proposes to use the yield of the APT bond on 15 July (7.97%)<sup>11</sup> as what would have prevailed on days during averaging periods that have wholly or partly lapsed before this date.

### **Questions for stakeholders**

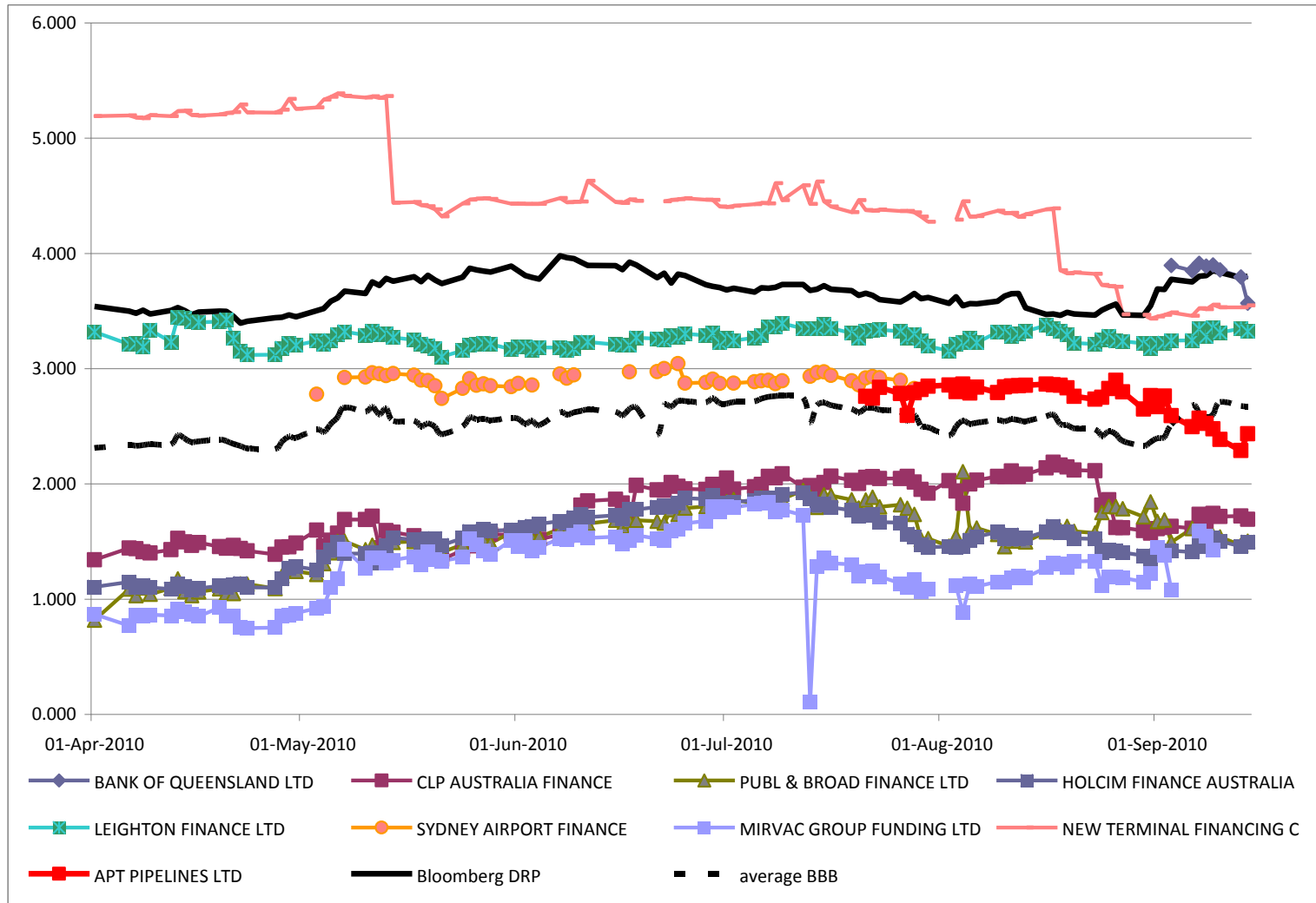
1. Given the paucity of available data, the fact that CBASpectrum recently ceased publication of its fair yield curve, the characteristics of the recently issued APT bond and the Tribunal's recent decision on the DRP issue, the AER intends to examine the yields from the recently issued APT bond and those derived from Bloomberg in terms of their appropriateness in estimating the DRP for the Victorian DNSPs' distribution determinations. Please provide comments on the AER's intended process.
2. Given the uncertainty in determining whether yields from Bloomberg or from the APT bond are more appropriate in setting the DRP, the AER intends to take an average of the two. Please provide comments on the AER's intended methodology.
3. Do stakeholders agree with the AER's conclusions regarding information from other sources?
4. Are there other sources of relevant information the AER has not considered above?
5. Do stakeholders consider it necessary to use an alternative method for estimating the DRP during days in averaging periods where APT data are not available?
6. Do stakeholders consider there is justification for making adjustments to the APT bond data to generate information during days where bond data are not independently available?

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<sup>11</sup> Mid price as reported on Bloomberg.



**Figure 2: Spreads on BBB rated bonds**



**Figure 3: Spreads on BBB+ rated bonds**

