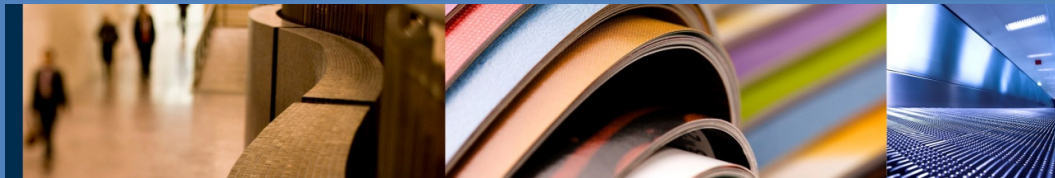


> **AMP Capital views around the Economic Regulation Authority's ("ERA") consultation process as it relates to Debt Risk Premium**



**DAMPIER TO BUNBURY NATURAL GAS PIPELINE**

11 SEPTEMBER 2012

## Important Note

This document has been prepared by AMP Capital Investors Limited (“AMP Capital Investors” or “AMPCI”) for the sole use of DBNGP Holdings Pty Limited (“DBP”) for the purposes of facilitating discussions during the consultative process currently being undertaken by the Economic Regulation Authority in the calculation of Debt Risk Premium (DRP) as it relates to the determination of a rate of return in accordance with the National Gas Access Law.

In preparing this document, any views, forecasts or estimates used in this document have been arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances of the terms of engagement.

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## Overview

This paper aims to provide AMPCI's views around the commercial dynamics associated with investments in Fixed Income Securities and it has been prepared by AMP Capital Investors ("AMPCI") as Advisor to DBNGP Holdings Pty Limited ("DBP") for the purpose of facilitating discussions with the Economic Regulatory Authority ("ERA") and specifically around the proposed revisions to the access arrangement covering the derivation of the Debt Risk Premium (DRP) as part of the consultative process initiated by the Authority during August 2012, as it specifically relates to DBNGP (WA) Transmission Pty Limited (DBP).

AMPCI's paper seeks to focus on the commercial aspects that form part of the fundamental decision making process and investment criteria utilised by institutional fixed income investors to determine their ability and appetite to participate in a primary or secondary market transaction for these securities. After all, these investors become the ultimate purchasers of corporate bonds and thus their support is imperative to maintain the necessary flow of funding in the Australian corporate bond market.

Based on the above logic, AMPCI adopts a commercial approach throughout the paper. We believe this should provide DBNGP with a realistic, practical and transparent overview reflective of commonly accepted market practice in the fixed income investment asset class.

## Credit and fixed income

Fixed income securities as an asset class are designed to provide a stable return in the form of income, often with minimum or no capital growth. This is in contrast to other asset classes such as equities, which aim to increase in value over time and aim to generate strong returns in the form of capital growth. As such for investors, understanding this risk-return balancing act between the performance of growth and a defensive asset classes such as fixed income is fundamental to achieving a well-diversified investment portfolio which reflects appropriate returns for them based on the risks being undertaken.

Credit is a fundamental part of fixed income and it specifically covers debt issued by non-governments. Types of credit securities include:

- Corporate Bonds;
- Securitised assets;
- Hybrids; and
- Credit derivatives

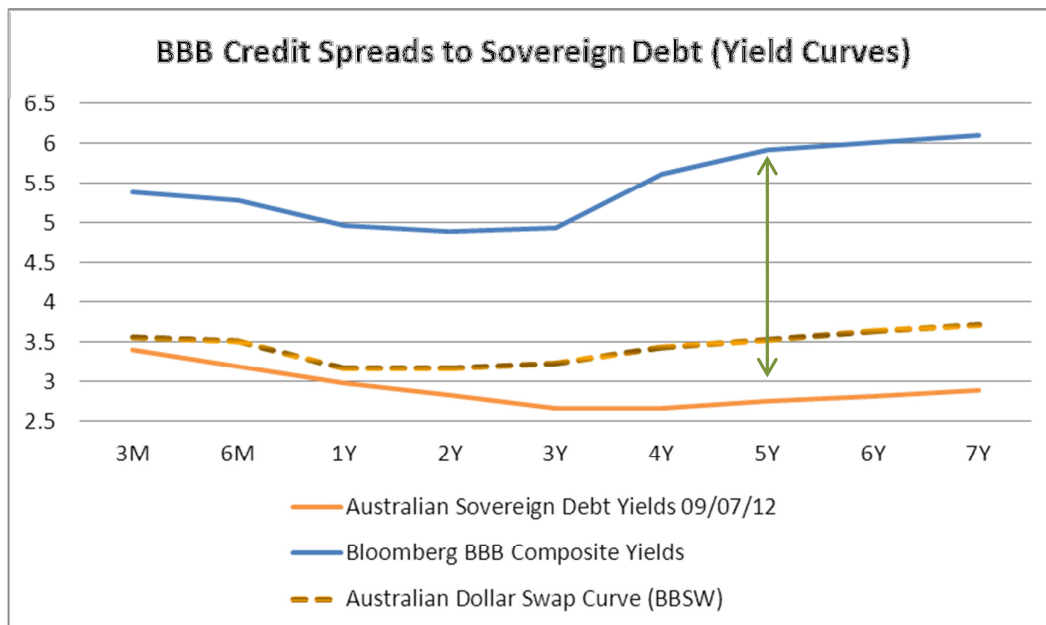
Fixed rate corporate bonds offer two components of return:

- Interest rate – this is the risk free rate an investor is able to obtain in an equivalent government bond (sovereign debt).
- Credit spread – this is the amount an investor is paid to take on the additional risk of lending to a corporate issuer.

Together, these components provide a smoother return over the long term when compared to equity investments.

The chart below depicts the BBB Bloomberg composite against Sovereign debt based on a running yield out to 7 years.

Figure 1



Source: Bloomberg and AMP Capital

Corporate bonds are used to provide investors with regular income. This income is generated via the interest coupons (which include a credit spread) companies pay on their borrowings from investors.

## Determinants of Bond Pricing

The key factors influencing the Price and therefore applicable yield for corporate bonds are as follows:

- Credit quality of issuer
- Economic environment (current and future expected interest rates)
- Term to maturity
- Other factors: liquidity, coupon rate, key mandate restrictions (e.g. maximum holding in high yield)

Most fixed income investor's policies and guidelines require active management to reflect the reality and unpredictability of commercial markets. As such, active risk management within a disciplined framework requires securities to be marked to market to take into account various changes in the movements in interest rate and the associated capital price adjustments required (in the opposite direction) to reflect the correct value of a security.

Aside from third party industry research, investment managers employ their own techniques both qualitative and quantitative in nature which apply a robust framework across active management strategies. This ensures investors are able to maintain a close eye on the performance of individual securities even though they are likely to manage these securities as part of a larger portfolio.

### Credit quality of issuer

In making an investment decision, one of the most important factors that form part of the investors' assessment will be around the credit rating for any given security being assessed.

The chart below summarises the high level approach used by Standard and Poor's' (S&P) to categorise the credit quality of issuers based on their internal methodology.

**Figure 2**

#### Investment grade ratings

<b>AAA</b>	Has extremely strong capacity to meet its financial commitments
<b>AA</b>	Has very strong capacity to meet its financial commitments
<b>A</b>	Has strong capacity to meet its financial commitments
<b>BBB</b>	An issuer has adequate capacity to meet its financial commitments, but more subject to adverse economic conditions or changing circumstances

#### Speculative investment grade ratings

<b>BB</b>	Is less vulnerable in near-term than other lower-rated obligors
<b>B</b>	Is more vulnerable than obligors rated BB
<b>CCC</b>	Is currently vulnerable and is dependent upon favourable business, financial and economic indicators
<b>CC</b>	Is currently highly vulnerable
<b>D</b>	Has generally defaulted on its obligations

Source: S&P

The highest credit rating for a security is AAA, indicating a very low probability that the borrower (the company issuing the debt) will default on its interest and principal payments to the investor (or institution). Correspondingly, income levels are much lower. As investments are placed further down the credit spectrum towards BBB or BB rated securities, credit risk increases but investors are rewarded by receiving higher interest. Investment managers will include the higher yielding, lower-rated investments in a diversified suite of fixed interest investments to increase returns. Credit risk is minimised and managed on an ongoing basis by employing skills and expertise in credit analysis.

In addition to looking at the external rating reports associated with a security, investors look at having their own credit departments shadow rate fixed income securities by taking into consideration the individual business profile (operational) and financial profile of the Issuer. A standard approach to evaluating the credit quality of an Issuer would typically involve the following:

- Internal ratings
  - The assessment of an issuer's expected likelihood of default and overall credit worthiness
  - This is achieved through the culmination of detailed business and financial risk analysis
    - This includes a review of profitability, balance sheet and liquidity analysis, shareholder support etc.
- Investment opinion
  - This is a relative value assessment of an issuer's bonds relative to other bonds within the same industry or peer group which somewhat reflects the theoretical approach being used by the ERA in deriving DRP but from a commercial perspective it focuses on a more closely related basket of comparable securities.
  - Is a forward looking assessment over a 6-12 month investment horizon, which is dynamically monitored and reviewed.
- Trade recommendation
  - The trade recommendation is used to determine the best security/securities to adjust credit exposure.
    - Security analysis involves a review of all supporting legal documents (eg. covenants, events of default), review of term sheets.
    - Trading analysis encompasses an analysis of available liquidity, expected entry and exit levels.

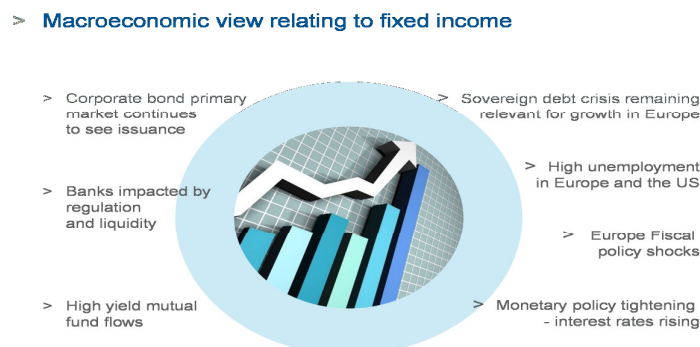
Based on our observations, most corporate bond fund allocations tend to gravitate towards investments at the higher end of the credit spectrum. For example, AMP Capital's own balanced corporate bond fund contains circa 60% of exposures rated A- and higher with only close to 30% allocated towards securities around the BBB spectrum. Generally speaking, most investors now require a coupon bump associated with a negative ratings event to ensure their expected return is maintained in line with the underlying credit quality of the securities they invest in.

As such, the impact the above investment discipline has in relation to bond pricing is that it directly influences the amount of demand for lower rated securities thereby impacting the potential pricing that can be achieved by issuers rated BBB+ and below.

### Economic Environment

Macroeconomic conditions at the time investment opportunities are being assessed as well as expectations around future event risk have a significant influence in the key decision process for investors. As uncertainty plagues investor confidence, their ability to support and participate on corporate bond transactions can contract significantly to levels that would exert significant pressure on credit spreads achievable by corporate issuers. This was evidenced during the Global Financial Crisis, where primary issuance activity dried up significantly in the domestic market creating a need for Issuers to seek alternate sources of debt funding at often significantly elevated premiums.

**Figure 3**



Whilst the domestic bond market has proved more resilient to market volatility during the 2012 calendar year, the uncertainty surrounding the European, US economies as well as the prospective further slow-down of growth in China, will most certainly influence investors in fixed income securities behaviour over the coming months.

Having regard to the active management requirements embedded in investors strategies, adverse movements in market conditions directly translate to changes in their expected rate of return (credit spreads) which result in increased costs to issuers.

### Terms to maturity

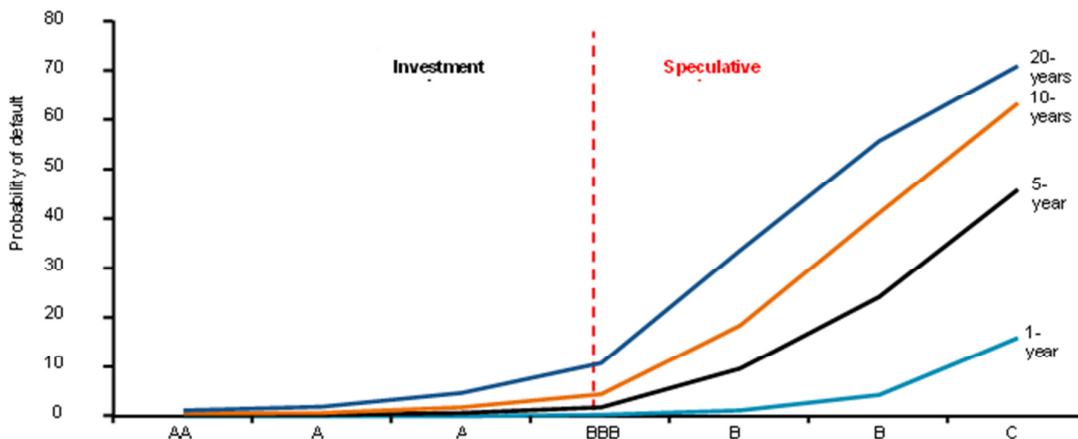
Credit ratings are very important, but fixed income investors will also place a high degree of emphasis to the duration of credit assets. Default risk grows exponentially as investments are made in lower grade securities and credit risk increases with time as the horizon is extended. Based on investors' internal guidelines (intuitively) a BBB rated portfolio with seven year duration is riskier than a BBB rated portfolio with two year duration. For example, based on AMP Capital's research:

- The two year probability of default for a BBB rated portfolio is circa 0.5%
- While the seven year probability of default steps up to 2.8%

As such, the maturity (tenor) of a security needs to appropriately reflect the risk being assumed by the investors and therefore the compensation in the form of income to investors must increase in line with the duration of the investment.

The chart below tracks AMP Capital's internal methodology in assessing the probability of default along the credit spectrum for various tenors.

Figure 4



### Other factors

Amongst a number of quantitative and qualitative factors influencing the investment decision process we would consider the following as instrumental:

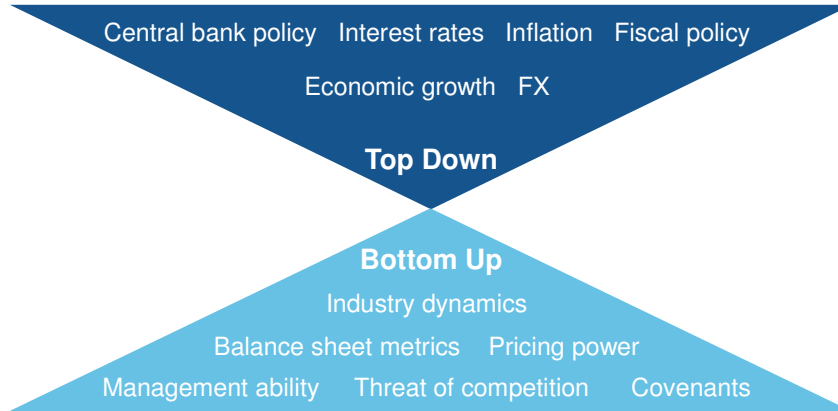
- Liquidity (associated with the size of the transaction as well as the brand recognition around the Issuer)
- Investment Mandates (some investors do not have the ability to invest below a certain credit level, with quite a few of the smaller institutions not being able to allocate investments below A-)
- Covenants structures

Portfolio requirements (specific to each potential investor, based on the individual exposures at the time a transaction is being assessed and can include sectors, geography, tenor and issuance size amongst various other determinants)

The chart below aims to cover the key factors influencing the investor's decision process from a broader external perspective (top down) as well as from a more pointed issuer specific view point (bottom up).

**Figure 5**

> **Factors impacting credit markets?**





## Methodology for the Calculation of the Debt Risk Premium

### Comment 1 – Averaging approach used in estimating DRP

- AMPCI believes the ERA's thesis surrounding the determination of cost of debt having regard to yields observed in capital markets provides an adequate measure in line with commercially observed market practice for constructing portfolios rather than delivering an accurate measure of an individual issuers DRP, notwithstanding, there are other sources of reliable evidence that should be taken into account when arriving at an estimate of DRP;
- AMPCI believes the ERA's approach taking a maturity weighted average of yields provides an approach which assists with ensuring that the resulting debt risk premium is not biased by difference in terms to maturity, though it does not fully reflect the DRP premiums for issuing for five year bonds;
- However, AMPCI believes taking a maturity weighted average of yields in isolation does not provide an appropriate proxy measure of determining the DRP for individual issuers even when applying a more holistic approach of assessing the benchmark efficient service provider (hypothetical provider);
- While AMPCI can recognise the difficulties in generating a line of best fit for a hypothetical efficient service provider is extremely difficult (based on readily available observable and comparable data points) we believe the approach requires further fine tuning to enable the derivation of the DRP which reflects prevailing condition in the market for funds and the risks associated with providing the reference services. Some of the factors include issuance size, sample set, weights used in a joint weighted average, and tenor.

### Comment 2 – Sample Bonds

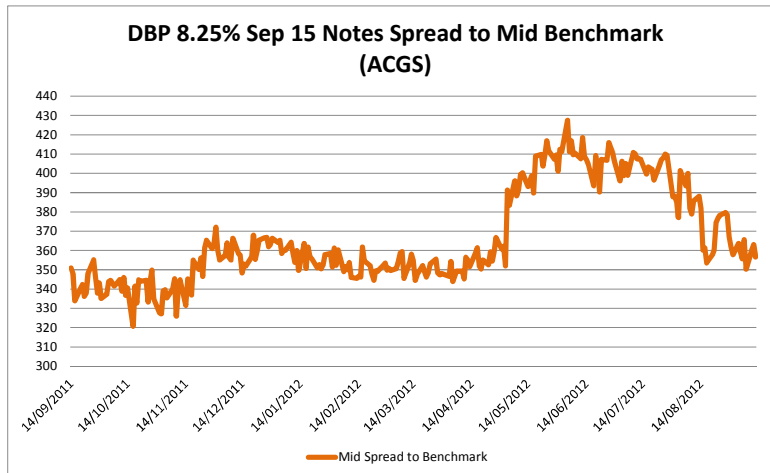
While AMPCI does not believe the ERA's sample of corporate bonds represent an accurate proxy for assessing the hypothetical benchmark efficient service provider (while reflecting the risk in providing the reference services), we accept the approach provides a theoretical benchmark that aims to replicate a fair DRP proxy. Based on this, it must be reiterated that the methodology does not capture the specific factors that in practical terms would be adopted by investors to assess the risks and merits between different issuers and bond issuances in live transactions.

We continue to maintain our views that one of the most important observation points which appears to be omitted from the ERA's sample group yet again is DBP's own 2015 maturity Medium Term Note. We find this quite surprising given the market price for DBP's own bonds is the best indication of where DBP's Debt Risk Premium estimate is currently being assessed by investors and therefore should form part of the analysis.

We believe the importance of including the DBP securities into the sample bond group is heightened by the fact that the DBP transaction is the single largest transaction completed in the Australian domestic bond market for an issuer and an issuance at the BBB- credit level and thus provides a closer benchmark of the levels credit markets are willing to accept for those securities for the type of volumes required for entities such as DBP to fund their respective capital structures.

We would like to highlight DBP's September 2015 securities have not traded below 320bps against ACGS in the 12 month observation period summarised in the chart below.

Figure 6



Source: Bloomberg and AMPCI

### Comment 3 – Joint weighted average approach

We have also reviewed the authority's observations around the ATCO revised decision published recently and note the Authority provided view on their approach surrounding the joint weighted average approach as follows:

1. "The APT pipelines bond contributes 0.126 (or 12.6 per cent) to the weighted average when the issuance is considered solely. When the term to maturity is considered on its own, this bond contributes 0.143 (or 14.3 per cent). However, when both characteristics of this bond, namely the issuance and the term to maturity, are considered jointly, this bond contributes 0.228 (or 22.8 per cent) in the sample. The compounding effect is more significant for this bond in the sample because both characteristics are assigned relatively higher weights in comparison with other bonds in the sample".

We note the Authority's observation and agree that there is a compounding effect evidenced in the joint approach, but in our opinion mathematically this provides a more accurate reflection of the commercial practice used to construct diversified investment portfolios by fixed income investors;

2. "Mirvac Group Finance bond (No. 7 of the sample) and Wesfarmers bond (No. 12 of the sample) are considered for illustrative purposes. When the issuance is considered, Wesfarmers bond is considered more important than Mirvac Group Finance bond (16.8 per cent versus 8.4 per cent). In contrast, when the term to maturity is considered, Wesfarmers bond is considered less important than Mirvac Group Finance bond (5.6 per cent versus 8.6 per cent). However, when the joint effect of the two characteristics is considered, Wesfarmers bond is considered more important than Mirvac Group Finance bond (11.8 per cent versus 9.1 per cent) in the sample. In this case, it is clear that the issuance effect dominates the term to maturity effect from Wesfarmers bond. The reverse effect (i.e. the term to maturity effect is dominant when compared to the issuance effect) can be found when comparing New Terminal Finance bond (No. 8 of the sample) and Snowy Hydro bond (No. 10 of the sample)".

Once again, we agree with the observations the Authority has made around the effects the terms to maturity and issuance size can have when treated in isolation. Based on this, we believe the joint approach does capture the commercial practice used by fixed income investors more accurately.

We believe the joint weighted average approach does generate a closer alignment to market practice, as issuance size is also a factor that is duly considered by investors in their decision making process.

After all, fixed income securities are subjected to the fundamental law of demand and supply and as such the higher the issuance size the less pricing tension that can be applied to a transaction which directly impacts the cost of debt than can be achieved by issuers. Therefore, a joint weighted approach that considers both maturity and issuance should be considered to arrive at a better estimate of DRP.

**Comment 4 – Term to Maturity**

In our opinion and acknowledging all the comments set out above, (without assessing alternate approaches) we believe at the very least a further adjustment to the Authority's joint weighted approach should be factored in to accommodate for differing term to maturity of the sample of bonds the ERA have used in their analysis and the period applicable to the relevant access arrangement - five years.

The fact that default risk grows exponentially as investments are made in lower grade securities and credit risk increases with time as raised earlier in this paper should be factored in to ensure a more commercially calibrated approach is adopted.

AMP Capital conducted quantitative analysis which compares the resultant weighted average debt risk premium of the ERA's sample group against the wider Bloomberg BBB composite which contains a total of 18 securities across the following 14 corporate names:

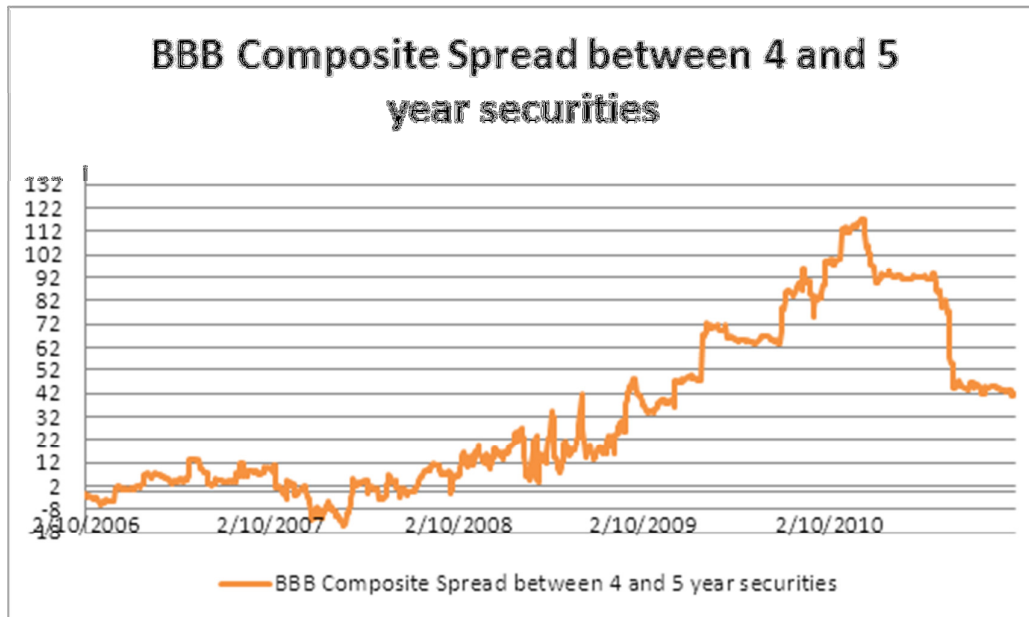
1. Transurban
2. Wesfarmers
3. Mirvac
4. Holcim
5. Sydney Airport
6. Santos Finance
7. DBNGP
8. Goodman Australia Industrial Fund
9. New Terminal Financing
10. Dexus Finance
11. Crown Group
12. Caltex
13. Brisbane Airport
14. United Energy

Given the broad nature of the sample Issuers included in the Bloomberg composite, the results show immaterial differences in the calculated weighted average debt risk premium across both sample groups. But we do however note that the average term to maturity of the ERA sample results in a shorter tenor than the expected access arrangement period of five years.

Based on this, we would suggest the appropriate step-up in credit spread is applied to the Authority's calculated debt risk premium to reflect the market accepted practice of applying a higher return requirement to compensate the investors for the exponential risk associated with investing in longer dated securities. On average the spread between the BBB Bloomberg Composite for four versus five year securities is estimated to be circa 33.4bps on a historical basis and from a forward looking point of view, at circa 31bps as evidenced by the BBB Composite yield curve generated as at 7 September 2012 (Figure 1).

For the purposes of comparison and to ensure a large enough sample is observed, AMPCI have included the chart below which tracks the spread between four year and five year tenors for a period of five years to September 2011. The statistical average of 33.4bps is based on the data points used to construct Figure 7 below.

Figure 7



Source: AMPCI and Bloomberg

## Conclusion

AMPCI has taken into consideration the theoretical averaging approaches used by the ERA to be used in calculating debt risk premium and compared these to the practical approach undertaken by some institutional fixed income investors and we make observations as follows:

- AMPCI believes the ERA's thesis surrounding the determination of cost of debt having regard to yields observed in capital markets provides an adequate measure in line with commercially observed market practice for constructing portfolios rather than delivering an accurate measure of an individual issuers' DRP, notwithstanding, there are other sources of reliable evidence that should be taken into account when arriving at an estimate of DRP;
- AMPCI believes the ERA's maturity weighted average of yields provides an approach which assists with ensuring that the resulting debt risk premium is not biased by difference in terms to maturity, though it does not fully reflect the DRP premiums for issuing five year bonds;
- AMPCI believes taking a maturity weighted average of yields in isolation (without factoring issue size), does not provide an appropriate proxy measure of determining the DRP;
- While AMPCI can recognise the difficulties in generating a line of best fit for a hypothetical efficient service provider and acknowledges it is extremely difficult (based on readily available observable and comparable data points) to do so efficiently we believe the approach requires further fine tuning to enable the derivation of the DRP which reflects prevailing conditions in the market for funds and the risks associated with providing the reference services. Some of the factors include issuance size, sample set, weights used in a joint weighted average and tenor.
- On the sample set, AMPCI believes that one of the most important observation points which should be included in the ERA's sample group is DBP's own 2015 maturity Medium Term Notes. We believe these securities serve as the most accurate indication of where DBP's Debt Risk Premium estimate is currently being assessed by investors.
- Finally on the tenor of securities, AMPCI believes the appropriate step-up in credit spread should be applied to the Authority's calculated debt risk premium to reflect the market accepted practice of applying a higher return requirement to compensate investors for the exponential risk associated with investing in longer dated securities and calibrate this to a five year period in alignment with the access arrangement period.
- Based on AMPCI review of the joint weighted average approach tested by the ERA, we believe this should be the approach undertaken in measuring DRP for the efficient service provider taking into consideration the inclusion of DBP's own 2015 Medium Term Notes and the step up in credit spread to adjust for a five year term security.