ETSA Utilities

Distribution Network Service Provider refinancing costs

Final Report

February 2010

PricewaterhouseCoopers

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Patrick Makinson
Manager Regulatory Finance
ETSA Utilities
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15 February 2010

Dear Patrick

Distribution Network Service Provider refinancing costs

We are pleased to present PricewaterhouseCoopers' ("PwC", "us" or "we") report outlining the costs associated with early refinancing. The methodology, and this report, has been prepared in accordance with the Scoping Brief dated 11 December 2009 (reproduced at Appendix A).

The report has been prepared by us for ETSA Utilities as expert witnesses in this matter. While a detailed curriculum vitae is provided in Appendix B, my credentials can be summarised as follows:

- **Matthew Santoro** – Matthew has over 20 years of corporate and institutional banking experience, including 12 years at Deutsche Bank and eight years at Citibank. At Deutsche Bank he held various senior banking positions covering the origination, structuring and syndication of debt facilities. Matthew is experienced in a wide range of financing and fundraising transactions, in particular in the area of acquisition financing, leverage financing, re-financings, project and property financing and procurement of debt capital markets instruments across the Australian, European and USA markets. His experience includes dealings with credit rating agencies such as Standard & Poor's and Moody's

  Prior to joining PwC, Matthew jointly established and was Joint National Head of KPMG's debt advisory practice for a period of five years. During that time, Matthew advised numerous companies on their debt and capital management needs, including the procurement of debt across a very broad industry sector. Matthew's experience covers capital management and financing applications for a wide range of structures, asset types and industries.

This report has been prepared with the assistance of the following PwC staff members:

- John Henderson (Associate Director – Debt & Capital Advisory)
- Dean Glasscock (Executive – Debt & Capital Advisory)

As a professional services firm, PwC has an ongoing relationship with each of the electricity distribution businesses. This relationship includes advising on matters pertaining to the upcoming regulatory review; the subject of this report. Further details of PwC's relationship with the businesses can be provided if necessary.

Based on the scope of our engagement and the assumptions outlined herein, we have made all the inquiries that we believe are desirable and appropriate and that no matters of significance that we regard as relevant have, to our knowledge, been withheld from this report. We have been provided with a copy of the Federal Court's "Guidelines for Expert Witnesses in Proceeding in the Federal Court of Australia" and this report has been prepared in accordance with those Guidelines.

Should you wish to discuss this report in any way, please do not hesitate to contact Matthew on (03) 8603.

Yours sincerely

Matthew Santoro
Executive Director

Contents

1 Executive Summary

1.1 Scope of work and assumptions

The current regulatory control period applying to ETSA Utilities is due to expire on 30 June 2010, and the next regulatory control period will commence on 1 July 2010 and run until 30 June 2015. ETSA Utilities submitted its regulatory proposal to the AER on 1 July 2009, and the AER issued its draft decision on 30 November 2009.

As a component of forecast operating expenditure, ETSA Utilities proposed a cash cost for the early refinancing of debt using the "completion method". As part of the material relied upon by ETSA Utilities to support the inclusion of an amount representing costs associated with the early refinancing of debt as a component of forecast operating expenditure, ETSA Utilities referred to a publication by Standard & Poor's[1] ("S&P"). The S&P publication outlined various aspects of debt refinancing and liquidity risk management and included the following requirement of S&P for Australian rated companies:

"For the Australian investment-grade corporates, we expect to see a measured and logical approach to meet upcoming debt maturities. We would want to see that the company has a credible strategy for repaying or refinancing debt maturing up to 18 months ahead. As maturities move into the forward 12-month time horizon, we will start placing more weight within the short-term rating analysis on the materiality of upcoming maturities and the company's refinancing strategy and execution ability. To avoid negative rating consequences, the ideal progression would be:

- 12-to-18 months ahead of maturity, the company would have a detailed and credible refinancing plan (including a contingency plan);
- No less than six months ahead of the maturity, the company would have documentation substantially in place for the replacement debt issue/s; and
- No less than three months ahead of maturity, the refinancing would be essentially **completed**[2], **committed**[2], or **underwritten**[2]."

The AER, in its draft determination, rejected the forecast operating costs associated with the completion method as it did not consider that this method represented the costs that would be incurred by an

[1] Standard & Poor's. Refinancing And Liquidity Risks Remain, But Australia's Rated Corporates Are Set To Clear The Debt Logjam. April 22 2008.

[2] Emphasis added

efficient benchmark network service provider.[3] The AER noted two principal concerns:

- that the financing choices made by ETSA Utilities may not necessarily reflect the efficient benchmark firm – for example, ETSA Utilities has structured its debt such that this large tranche of debt requires refinancing at this time; and
- that ETSA Utilities did not appear to have closely investigated the alternative approaches of the "commitment" approach and the "underwriting" approach.[4]

PricewaterhouseCoopers ("PwC", "us" or "we") has been engaged to undertake the following for ETSA Utilities:

Part 1. In relation to the three refinancing options identified by S&P:

- Define the three options of completing, committing or underwriting
- Generically cost the three options of refinancing three months prior to the maturity date
- Identify any other considerations for an Australian investment grade corporate in selecting between these three options
- Identify the approach that is likely to be most efficient for an Australian investment grade corporate

For this section of our engagement we have been asked to make the following assumptions:

- Consistent with the benchmark financing assumption that is prescribed in the National Electricity Rules,[5] the borrowing entity is assumed to be funded entirely by a portfolio of bonds
- Our cost methodology for the three refinancing options is based on the hypothetical scenario that the maturing debt is a bond instrument and is being refinanced by the issue of new bonds
- The refinancing risk is addressed 3 months prior to the scheduled debt maturity
- Consistent with the benchmark financing assumptions adopted in the National Electricity Rules and in the AER's Statement of Regulatory Intent,[6] the new bonds comprise 10 year fixed interest instruments with a BBB+ credit rating

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[3] AER, *South Australia Draft Distribution Determination: Draft Decision*, 25 November 2009, p 238.

[4] AER, *South Australia Draft Distribution Determination: Draft Decision*, 25 November 2009, Confidential appendix K.

[5] National Electricity Rules, clause 6.5.2(e).

[6] AER, Electricity Transmission and Distribution Network Service Providers – Statement of Revised WACC Parameters (Transmission) and Statement of Regulatory Intent (Distribution), May 2009, p.7.

- The bonds described above would be issued at a yield equivalent to 10 year Government Treasury bond rate plus a debt risk premium of 4.29% pa
- Given the assumed term of the debt of 10 years, the annual refinancing volume is approximately 1/10 of the debt-share (60 per cent) of the regulatory asset base (RAB)

Part 2. Identify whether it is currently market practice for an Australian investment grade corporate to complete, commit or underwrite the refinancing of an impending debt maturity, at least three months prior to the maturity date. We have also been asked to consider whether standard practice differentiates for varying volumes of maturing debt. We have been asked to provide evidence to support the conclusion.

1.2 Conclusion

In this report, based on the scope of our engagement and the assumptions outlined herein, we conclude that:

- the cash cost associated with the refinancing of debt based on $100 million, if it was **completed** no less than three months ahead of maturity, is estimated to be between $1.248 million and $1.498 million (equivalent to 20 bps pa and 24 bps pa);
- the cash cost associated with the refinancing of debt if it was **committed** three months ahead of maturity would be similar to the costs for the completion method, however unlike the completion method the borrower would not have much scope to reduce costs. The cash cost associated with the refinancing of $100 million of debt, if it was committed three months ahead of maturity, is estimated to be between $1.373 million and $1.498 million (equivalent to 22 bps pa and 24 bps pa);
- the cash cost associated with the refinancing of debt based on $100 million if it was **underwritten** three months ahead of maturity is estimated to be between $2.87 million and $3.36 million (equivalent to 46 bps pa to 54 bps pa) over the 10 year tenor of the bond;
- given the above conclusions, and based on the assumptions set out in this report, the cash costs associated with the completion method represent the lowest cost of the three options for securing suitable arrangements for renewing debt three months out; and
- it is common practice for commercial business to refinance debt according to the completion method at least three months prior to the relevant debt facility expiring.

Based on the scope of our engagement and the assumptions outlined herein, we have made all the inquiries that we believe are desirable and appropriate and that no matters of significance that we regard as relevant have, to our knowledge, been withheld from this report.

2 Incidental costs incurred by a Distribution Network Service Provider as part of its refinancing

2.1 A hypothetical bond refinancing

This report is intended to address a defined scope within the limits of the author's area of expertise, which is to advise upon how a debt market practitioner would derive the cost of certain actual or hypothetical debt market transactions and to offer observations upon related debt market issues. The report should not be interpreted as advising upon how those estimates and observations should be interpreted and applied for the setting of regulated prices, which is a matter that is outside the author's area of expertise.

We note that the cost methodology we have applied to the three S&P refinancing options is based on the hypothetical benchmark financing arrangements that are adopted in the National Electricity Rules and the AER's Statement of Regulatory Intent, namely that the entity is funded by Australian corporate bonds and that the refinancing of the maturing bond is via the issue of new bonds. We note that this benchmark is not intended to be descriptively accurate, as it is well known that DNSPs raise their debt from a number of sources and across a spread of maturities. One reason for this, amongst other reasons, is to reduce their risk associated with raising debt from markets or during time periods when there may be constraints to the quantity of debt that can be raised. We note that even when the Australian corporate bond market is well functioning, it is not sufficiently deep to provide borrowers with the required certainty in volume and pricing. Rather, all that is intended is that the benchmark provides a reasonable proxy for the cost of debt from any source, relying upon the assumption that market forces will lead to the full cost of debt raising to be equated across different funding sources, at least on average over time.

For the purpose of the current assignment, the fact that the benchmark does not describe how the DNSPs actually raise debt means that it need not be the case that the transactions that are described below would be observed in large number in Australia. This is particularly the case at the current time when there are very few issues from any firm in the Australian corporate bond market.

Having said that, it is important for the benchmark financing assumption to be applied consistently for all purposes, including when estimating the cost associated with refinancing debt. The equilibrium proposition described above that justifies the use of a simple financing benchmark applies at the level of the *total* cost of debt. Thus, for example, if the debt margin is drawn from observed yields on Australian corporate bonds but some other instrument is

assumed when estimating the refinancing cost, it is possible that the latter instrument may offer greater flexibility over refinancing but demand a higher debt margin for an equivalent term as a consequence. Mixing components from different instruments may lead to an estimate of the total cost of debt that is either not available under any of the instruments, or that exceeds what is payable under any of the instruments.

We note, however, that when applying the hypothetical benchmark described above there may be some argument as to whether it would be appropriate to build in premia for the lack of liquidity in the Australian market. For the avoidance of doubt, in costing the three S&P refinancing scenarios, we have assumed well functioning debt markets and accordingly have not added any pricing premium in our calculations. In this regard our approach may be viewed as conservative.

The table below summarises the three S&P refinancing options, and associated potential cash costs, if the refinancing options were to apply to a bond-to-bond transaction, that is, the scenario of a borrower refinancing maturing bonds through the issue of new bonds. It is our opinion that a borrower with a financing structure matching the hypothetical benchmark described above would utilise one of the three options specified by S&P to mitigate its refinancing risk.

S&P option	Description	Cost considerations
Completed	• New bonds fully documented and funded at T_0 • Proceeds of new bond issue are deposited • At the end of the 3 months, the cash on deposit is used to repay the old bonds/maturing bonds	• New bonds assumed to be issued at T_0 and proceeds deposited for 3 months at a predetermined interest rate (thus generating interest income) • Cash costs = interest rate on new bonds issued less interest income on deposit over 3 months • Some of the above costs could potentially be mitigated by approaching investors to sell the bonds to the issuer at an agreed yield/price. Market practice indicates a low acceptance/take-up by investors.

S&P option	Description	Cost considerations
Committed (with forward/delayed bond settlement)	• New bonds fully documented and price/yield locked in at T_0 • Bond investors agree to delay funding/purchasing the new bonds until T_0+3 months • At T_0+3 the proceeds from the new bond issue are used to repay the maturing bonds	• Costs/fees bond investors would require to hold unfunded commitment for 3 months • Investor would be required to "put aside" sufficient funds to satisfy the commitment to purchase bonds in 3 months time • Under a "normal bond issue" investors would purchase the bond within a short timeframe of committing to purchase the bond, thus receiving the bond yield immediately • Cash costs = income foregone on new bonds for the 3 month period issued less any income recovered by placing the "committed funds" on deposit for 3 months
Underwritten	• Bond Agent/Underwriter agrees to underwrite the bond transaction (volume and pricing) at T_0 for funding at T_0 +3months	• Underwriting costs of Bond Agent Bank • Recognising that the underwriting fees are in addition to fees Bond Agent normally charge on an non-underwritten bond transaction

Each of these alternatives is further discussed below.

2.2 Completion of refinancing 3 months prior to maturity

Under the "completion" scenario, it is assumed that the borrower addresses its refinancing risk by undertaking the new bond issue 3 months ahead of the existing bonds' scheduled maturity date. As issuers of bonds do not customarily have early redemption / repayment rights under the bonds, the issuer would be required to place the proceeds of the new bond issue on deposit until the old bonds mature. At maturity of the old bonds, the cash from the new bond issue is applied to repay the maturing bonds.

The additional cash cost incurred by the borrower refinancing under this scenario is the difference between:

- The cost of debt under the new bond issue over 3 months, and
- The income generated on the cash investment / deposited for 3 months

Over the 3 month period, the proceeds from the new bond issue may be invested by the borrower as follows:

  - Bank risk: Represented by either placing the funds on deposit with a bank or purchasing bank accepted bills of exchange. Either form of investment is regarded as bank risk and likely to be offered at substantially the same interest rate. A reasonable interest rate assumption is regarded to be the Bank Bill Swap reference rate (BBSW).[7] This form of investment is regarded low risk[8] and common market practice. The temporary investment of bond proceeds in the form of bank deposit or purchase of bank accepted bills until the old bonds mature is likely to have neutral credit rating impact on the borrower; or
  - Government risk: Purchase of 3-month Government treasury bills. This is a lower credit risk strategy to investing in bank-risk deposit / bank bills. The interest income generated under this option will be lower than the bank options due to the lower credit risk profile of the investment. The temporary investment of bond proceeds in the form of Government treasury bills is

[7] BBSW is the Australian Financial Markets Association's bank-bill reference rate, published daily on AAP Reuters page BBSW and on Telerate page 2676. BBSW is calculated as the average mid rate for Australian Dollar bills of exchange, accepted by an approved bank, having a tenor with a designated maturity, that appears on an approved information vendors service.

[8] We note that under normal market conditions bank risk is regarded as low. However, during the Global Financial Crisis, there was a high level of uncertainty over the credit quality of banks, resulting in many banks experiencing difficulties in raising funds from the wholesale market. To restore confidence in the banking market, many Governments offered guarantees (for a fee) over bank deposits as well as guarantees for bonds issued by banks.

likely to have neutral credit rating impact on the borrower.

We have considered the refinancing costs impact under both investment options.

In estimating the cash costs under the "Completion" option, we have also considered that the borrower may be able to reduce costs by negotiating with some existing bond holders for the early redemption or purchase of the old bonds 3 months prior to the scheduled maturity. As bonds do not commonly provide issuers with the ability to redeem or buy-back bonds, any buy-back or redemption will be subject to negotiation between the issuer and the holder, consequently the outcome is highly unpredictable. Below we have summarised the cost mitigation of a buy-back ranging from 0% acceptance to 100% acceptance.

It is reasonable to expect a relatively low acceptance from fixed interest investors to a buy-back or redemption offer. All else being equal, most fixed interest investors would prefer to hold the bond to maturity than to accept a buy-back proposal. Accepting a buy-back would result in the investor receiving cash ahead of expectations, therefore requiring the investor to quickly find reinvestment opportunities for the cash. Buy-backs also cause investors unnecessary or avoidable additional administration costs. For the purpose of our cost estimates, we have assumed that the borrower is able to buy back a percentage of its bonds on the open market at a yield equivalent to BBSW + 50 bps[9], being an estimate of the negotiated yield for a 3 month BBB+ rated instrument.

Buying back its own bond generates an equivalent return for the borrower to one of using the surplus funds from the new bond issue to invest in a 3 month instrument yielding BBSW + 50 bps being the assumed yield on a BBB+ 3 month rated instrument, and is detailed in the calculations below.

[9] Based on experience advising in capital markets our estimate of a 3 month BBB+ rated credit margin is based on pricing for BBB+/A-2 issues in the Commercial Paper market pre-GFC.

Cost Calculation

To illustrate the cash costs associated with the completion refinancing option, we have used the variables in the below table. The base rates[10] used in the illustrative example were market interest rates as at 15 December 2009.

Assumptions	Units	Value
New bond issue		
10 year Government rate	% pa	5.40%
AER debt risk premium	% pa	4.29%
Deposit		
3-month BBSW	% pa	4.20%
3-month Government Treasury bills	% pa	3.70%
3-month BBB+ rated yield (BBSW + 50 bps)	% pa	4.70%
Other		
Volume (assumption)	$m	$100

Calculation involves three components:

A. 3-months interest expense on the new bond

B. Offsetting interest income generated on monies invested over 3 months

C. Cost mitigation through successful negotiating with some bond holders to accept borrower's offer to buy-back / redeem old bonds 3 months ahead of scheduled maturity.

The calculation methodologies of each of these are outlined below.

A. Interest expense: New bond issue, coupon for first 3 months

= (10 year Government Treasury bill rate + AER debt risk premium) * Volume / number of quarters in a year

= (5.40% + 4.29%) * $100m / 4 = 9.69% * $100m / 4

[10] Base rates are: 10-years Government rate, 3-month BBSW and 3-month Government Treasury bills

= **$2.4225m or 2.4225%** this equates to 39 bps pa over 10 year tenor[11]

B.1 Interest Income (invested in bank credit risk): Interest income received from investment in bank deposit or bank accepted bills at BBSW for 3 months

= volume * 3-month BBSW / number of quarters in a year

= $100m * 4.20% / 4

= **$1.05m or 1.05%** this equates to 17 bps pa over 10 year tenor[11]

or

B.2 Interest Income (invested in Government credit risk): Interest income received from investment in Government Treasury bills for 3 months

= volume * 3-months Government Treasury bills / number of quarters in a year

= $100m * 3.70% / 4

= **$0.925m or 0.925%** this equates to 15 bps pa over 10 year tenor[11]

C. Partial Buying back / redeeming old bonds

As previously mentioned, the borrower has potential scope to reduce the costs by negotiating with some existing bond holders the early redemption or purchase of the old bonds. This method assumes the borrower is able to successfully negotiate with existing bond holders to buy-back a percentage of existing bonds 3 months prior to the scheduled maturity. We have assumed the borrower is able to buy back its bonds at a yield equivalent to BBSW + 50 bps, being the estimated interest rate for a 3 month BBB+ rated issuer.

Based on our experience we would expect that the buy-back would have a low acceptance rate by investors. The majority of investors are expected to be fixed interest managers whose mandate requires them to hold bonds and as a result would have an aversion to hold cash received from a bond buy-back.

[11] The annual basis point equivalent has been calculated based on a discount rate equivalent to 10 year Government Treasury bill rate + AER debt risk premium

Cost summary

The table below summarises each of the above cost components under the completion refinancing alternative.

Calculation element	Upfront cash cost for $100m ($m)	Annual equiv [12] for $100m ($m)	Upfront cost (bps)	Yield equiv (bps pa)
B.1 Interest Income (invested in bank credit risk): Interest income received from investment in bank deposit or bank accepted bills at BBSW for 3 months				
3 month interest cost on new bond	2.423	0.39	242	39
BBSW interest income	(1.05)	(0.17)	(105)	(17)
Total cost if invested in BBSW and no redemption / buy back	1.373	0.22	137	22
B.2 Interest Income (invested in Government credit risk): Interest income received from investment in Government Treasury bills for 3 months				
3 month interest cost on new bond	2.423	0.39	242	39
Treasury bill interest income	(0.925)	(0.15)	(93)	(15)
Total cost if invested in Treasury bills and no redemption / buy back	1.498	0.24	150	24

[12] Upfront cash cost annualised over 10 years.

Summarised in the table below is the cost mitigation of a buy-back ranging from 0% acceptance to 100% acceptance.

Percentage bought back / redeemed	0%	25%	50%	75%	100%
C. Partial buying back / redeeming old bonds					
Total cost assuming investment in BBSW					
3 month interest cost on new bond	2.423	2.423	2.423	2.423	2.423
less bond buy-back	-	(0.294)	(0.588)	(0.881)	(1.175)
less investment in bank risk	(1.050)	(0.788)	(0.525)	(0.263)	-
Upfront cash cost for $100m ($m)	1.373	1.342	1.311	1.279	1.248
Annual equiv for $100m ($m)	0.22	0.22	0.21	0.21	0.20
Yield equiv (bps pa)	22	22	21	21	20
Total cost assuming investment in Treasury Bills					
3 month interest cost on new bond	2.423	2.423	2.423	2.423	2.423
less bond buy-back	-	(0.294)	(0.588)	(0.881)	(1.175)
less investment in government risk	(0.925)	(0.694)	(0.463)	(0.231)	-
Upfront cash cost for $100m ($m)	1.498	1.436	1.373	1.311	1.248
Annual equiv for $100m ($m)	0.24	0.23	0.22	0.21	0.20
Yield equiv (bps pa)	24	23	22	21	20

In conclusion, based on $100 million, the cash cost estimate associated with the completed refinancing alternative is between $1.248m and $1.498m (equivalent to 20 bps pa and 24 bps pa.)

2.3 Bond holders Committed to purchase new bonds in 3 months time (i.e. forward / delayed bond settlement)

Under the "committed" scenario, it is assumed that the borrower addresses its refinancing risk by successfully negotiating with bond holders the purchase of the borrower's new bonds a date 3 months forward. The forward commitment would need to be in a legally binding form that is fully documented, otherwise there would be insufficient certainty as to the refinancing of the debt. Under this scenario, the timing of the new bond issue would coincide with the old bonds' scheduled maturity date, with the proceeds from the new issue applied to refinance the maturing bonds.

Under a "normal bond issue" (where no delay in settlement is involved), bond investors would financially settle the bond purchase within a short timeframe of committing to the transaction and accordingly generate the agreed bond yield / return immediately. However, under a forward / delayed bond settlement, bond investors would effectively be required to "put aside" sufficient funds to satisfy the commitment to purchase bonds in 3 months time.

The methodology for calculating the foregone interest income arising from the 3-months delayed settlement is consistent with the methodology outlined in 2.1 above. Namely, in setting aside the funds that have been committed to forward purchase the new bonds, the investor is likely to be investing the cash in very liquid and low credit risk instruments. Similar to 2.1 above, this is likely to be in bank-risk instruments or Government Treasury bills, if the investor is highly risk averse. The income generated on 3-months investment will only partially offset the income that would have been generated if the bond was purchased immediately.

Accordingly, the compensation that would be required by the bond investor for a delayed start bond purchase is estimated to be the difference between:

- The opportunity cost over a 3 month period of receiving the agreed yield on the bond immediately after committing to purchase the bond, and
- The income generated on the cash investment / deposited that has been committed to purchase the new bonds 3 months forward

Unlike the completion scenario set out in section 2.2 above, we do not believe the borrower would have much scope to reduce these costs. However, we note that from time to time bond markets can be in a state where the demand for bonds greatly exceeds the supply of new bond issues. Under such conditions, the cost premium for a delayed start bond can be below the hypothetical cost estimate.

Deferred settled bond transactions are not common in the Australian market for periods as long as 3 months. Very short delays (days)

sometimes take place at no / negligible cost. However, if compensation was offered to investors on the basis described above, it is reasonable to expect investors would accept delay settlements of up to 3 months.

Cost Calculation

As described above, an investor in a deferred start bond will be required to commit funds prior to investment and will look to invest these funds in a low risk interest bearing instrument, such as a bank deposit, bank bills or Government Treasury bills. The investor would receive a minimum BBSW return or Government Treasury bills for three months and would, most likely, look to be compensated through increased running yield on the bond. The additional cost to the borrower would therefore be similar to components A and B in section 2.2 above. Based on $100m, the additional cost would be between $1.373m and $1.498m (equivalent to 22 bps pa and 24 bps pa). This amount does not reflect the additional administrative and legal costs that would be incurred as a consequence of negotiating a deferred settled bond transaction for a period of as long as 3 months. The calculations below, detail the above summary.

A. Interest expense: New bond issue, coupon for first 3 months

= (10 year Government Treasury bill rate + AER debt risk premium) * Volume / number of quarters in a year

= (5.40% + 4.29%) * $100m / 4 = 9.69% * $100m / 4

= **$2.4225m or 2.4225%** this equates to 39 bps pa over 10 year tenor[13]

B.1 Interest Income (invested in bank credit risk): Interest income received from investment in bank deposit or bank accepted bills at BBSW for 3 months

= volume * 3-months BBSW / number of quarters in a year

= $100m * 4.20% / 4

= **$1.05m or 1.05%** this equates to 17 bps pa over 10 year tenor[13]

or

B.2 Interest Income (invested in Government credit risk): Interest income received from investment in Government Treasury bills for 3 months

= volume * 3-months Government Treasury bills / number of quarters in a year

[13] The annual basis point equivalent has been calculated based on a discount rate equivalent to 10 year Government Treasury bill rate + AER debt risk premium

= $100m * 3.70% / 4

= **$0.925m or 0.925%** this equates to 15 bps pa over 10 year tenor[13]

2.4 Securing bank underwriting of new bond issue 3 months prior to maturity of old bonds

Under the “underwriting” scenario, it is assumed that the borrower addresses its refinancing risk by securing a bank underwriting of a bond issue 3 months before the old bonds’ scheduled maturity. Accordingly, the bank would agree to underwrite the issue of 10 year bonds, at an agreed volume and credit margin at T_0 for executing at T_0 +3months.

The key risks to the underwriter are:

- Market volatility over the 3 months period that the underwriter is required to “hold” the pricing exposure on 10 year bonds. The combination of the 3 months “hold” period and ten year tenor of the bonds makes this the most significant risk component to the underwriter
- Market credit margins (for underlying 10 year bonds) may increase and reduce the market appetite for the underwritten bond, leaving the underwriter holding the bond and/or having to issue at a discount
- Underlying credit risk of the issuer, whereby the underwriter is taking borrower credit risk for 3 months. If the issuer’s credit profile deteriorates, market appetite will decrease for the issuer, making the successful sale of bonds into the market difficult to achieve

Underwriters would mitigate these risks through a combination of:

- Charging of upfront / underwriting fees to remunerate the bank for the risks
- Require the underwritten price (i.e. credit margin) to be at premium to where benchmark issuers / credits would normally be expected to price comparable bond transactions. The premium would be required to provide the bank comfort that it would be able to successfully sell all the bonds
- Underwrite the volume only, rather than volume and price. Under such scenario, the underwriter may incorporate a “market flex” provision in the pricing of the bond, providing the underwriter the flexibility to increase the yield/credit margin of the bond until sufficient bids are received from investors to complete 100% sale of the bonds.
- Ability to reprice or terminate the underwriting risk under certain circumstances. As this underwriting risk mitigation method is likely to weaken the underwriting and therefore expose the borrower to refinancing uncertainty, it is unlikely to satisfy the S&P requirements. Accordingly, we have assumed that the borrower would require an “unconditional” underwriting

The pricing structure for an underwriting is twofold:

- upfront / underwriting fee, and
- premium credit margin over benchmark issuers.

The quantum of upfront fees and credit margin premium are inversely related. Based on industry experience our best guess estimate of possible price ranges are:

- Upfront underwriting fees: 25 bps to 100 bps
- Premium credit margin to benchmark issuers: 50 bps to 30 bps pa

Accordingly, estimated cost combination of an underwritten bond transaction may range from:

- upfront / underwriting fees of 25 bps with required credit margin premium of 50 bps pa; to
- upfront / underwriting fees of 100 bps with required credit margin premium of 30 bps pa

For an underwriting that incorporates volume underwriting only, our cost estimate is that an underwriting fee of 25 bps to 50 bps would apply.

Underwritten bond transactions are customarily expensive. As a 3 months underwriting timeframe is regarded longer than normal, this refinancing option would be difficult to obtain from banks, and would be regarded the most expensive and not be commonly utilised by borrowers.

Cost Calculation

To illustrate the costs associated with this refinancing alternative, we have used the variables in the below table.

Assumption	Units	Value
Underwriting cost (upfront)	bps	25 bps – 100 bps
Credit margin premium (pa)	bps pa	50 bps – 30 bps
Volume (assumption)	$m	$100m

Estimated Fees	Present value for $100m ($m)	Annual equiv for $100m ($m)	Present value (bps)	Yield (bps pa)
Lower end				
Underwriting cost = 100 bps	1.00	0.16	100 bps	16 bps pa
Credit margin premium = 30 bps pa	1.87	0.30	187 bps	30 bps pa
Total cost	2.87	0.46	287 bps	46 bps pa
Upper end				
Underwriting cost = 25 bps	0.25	0.04	25 bps	4 bps pa
Credit margin premium = 50 bps pa	3.11	0.50	311 bps	50 bps pa
Total cost	3.36	0.54	336 bps	54 bps pa

The costs associated with an underwriting refinancing alternative, based on $100m is estimated at $2.87m to $3.36m (equivalent to 46 bps pa to 54 bps pa) over the 10 year tenor of the bond.

2.5 Considerations for selecting between the three refinancing options

The completion option is regarded as the most cost efficient and simplest to complete. Key observations are:

- The completed refinancing alternative provides the borrower more control over the execution phase. The borrower is able to undertake a “normal bond transaction” and is likely to attract the widest investor base to purchase its bonds. The buy-back / redemption option is a cost minimisation mechanism, but its success or otherwise is not detrimental to the borrower
- The commitment alternative, and certainly for a period that would involve a delay of more than a few days, is not regarded a “normal transaction” and accordingly increases execution risk. This option may exclude certain bond investors for the new issue as some investors are likely to be deterred by the “complexity” of a delayed funded bond (of some three months) when they are more familiar with or used to the commitment alternative where the delay is very short or not longer than a couple of days. Further complexity arises for the borrower as it involves the borrower taking a performance risk on the investor fulfilling its commitment to purchase the bonds in 3 months time
- The underwriting alternative is the most unlikely to occur of the three options in a bond transaction. The high risk nature of the underwriting means that this alternative would be very expensive for the borrower.

3 Market practice of refinancing maturing debt

3.1 Introduction

We have been asked to identify, and provide evidence to support, whether it is currently market practice for an investment grade corporate to refinance an impending debt maturity, at least three months prior to the maturity date. We have also been asked to consider whether the practice differentiates for varying volumes of maturing debt.

Our response is based on our extensive experience in dealing in the debt markets and evidence sourced from publicly available information on companies undertaking refinancings. Information sources include:

- Reuters LPC LoanConnector
- Company annual reports
- Company press releases

The data sample chosen was based on the following:

1 Refinancing of a bond transaction in Australian market in the last year;

2 Large caps rather than small and mid-sized firms; and

3 Transactions where data is available from LoanConnector, with financial statistics including maturity and refinancing dates being published.

4 The data excludes ETSA Utilities' July 2009 US Private Placement to refinance US$750m of debt due in April 2010.

The analysis presented in this section shows that companies do undertake refinancing of an impending debt maturity in advance of the debt maturity and, in any event, at least three months prior to the maturity date.

3.2 Market practice

Although the mitigation of refinancing risk has been heightened by the Global Financial Crisis, refinancing risk has always been a major focus for borrowers.

It should be noted that whilst the main reason corporate borrowers focus on managing refinancing risk is to ensure the business remains a going concern the management of refinancing risk also provides the benefit of maintaining a stable credit rating.

Debt requires the servicing of both interest and principal payment obligations. As the failure to satisfy a financial obligation under a loan agreement has very dire consequences for a borrower, market practice is to address refinancing risk in a sufficient timeframe prior to maturity.

In some instances, refinancing obligations can be satisfied by other sources such as operating cash flows, cash deposits and other committed lines of credit. Despite the source or repayment, an investment grade borrower would customarily secure the source of the refinancing well in advance of the scheduled maturity of the debt. Unless the borrower has surplus cash holdings on deposit available to repay the maturing debt, in most instances, the maturing debt is satisfied though the establishment of a replacement debt facility.

It is our opinion that the quantum[14] of the refinancing does not materially change the general practice of securing the source of refinancing in advance of the scheduled maturity date. If the borrower's forecast shows that the quantum of the scheduled repayment amount cannot be satisfied by internal sources, a prudent investment grade borrower is expected to secure the required replacement debt within an adequate timeframe of the scheduled repayment date of the existing debt. A three month prior timeframe is not unreasonable and as shown in the table below, refinancing are also secured more than three months ahead of the scheduled maturity date. The fact that S&P has specified that it expects investment grade borrowers to secure the refinancing at least three months prior to the maturing debt will result in most, if not all, rated investment grade borrowers complying to ensure they satisfy the rating agency's requirements.

CPA Australia Ltd, identify their "top tip" for Australian corporate treasurers is to start refinancing early.

> "Due to the limited funds available at acceptable cost and tenor, it is important to get in early in seeking to re-finance or financing. The risk of not being able to refinance (being the uncertainty regarding the continuation of some businesses as a going concern) is placing many businesses of all sizes under intense scrutiny to demonstrate that they have addressed refinancing risks. Given the smaller pool of potential lenders, lenders having less capacity to lend and a lower risk appetite, it may take time to effectively address refinancing risk."[15]

Also emphasising the need to refinance early, Standard & Poor's have published numerous articles surrounding refinancing risk, identifying the greatest challenge for Australian Utilities over the medium term will be refinancing maturing debt.

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[14] The quantum of the refinancing needs to be material relative to the size of the borrower.

[15] CPA Australia Ltd. "Top tips for the accidental corporate treasurer" http://www.cpaaustralia.com.au/ accessed, January 21, 2010.

> "With capital markets still effectively closed, funding options for Australian utilities remain invariably linked to the bank market, which has tightened terms and conditions, increased costs and shortened the tenor of funding (mostly to three years). Indeed, for the next 12 months, we expect the refinancing process to be costlier and take a lot longer than expected."[16]

Refinancing at least three months prior to maturity reduces refinancing risk, ensures the business does not default on the principal repayment of a debt issue, and removes the risk of any credit ratings negative action.

In a ratings announcement on March 18, 2009, Standard & Poor's placed TRUenergy on CreditWatch Negative, stating that the "short three-month timeframe to maturity of TRUenergy's A$300 million working capital facility places pressure on the company's ability to preserve adequate liquidity in a timely manner"."[17]

3.3 Refinancing activity of sample Australian corporates

The table below summarises refinancing activities of major Australian corporates over the past year, based on the criteria outlined in 3.1 above.

The data supports that borrowers do undertake refinancing at least 3 months prior to the scheduled maturity date.

[16] Standard & Poor's "Industry Report Card: For Australian Utilities, The Challenge Remains to Manage Refinancing And Balance Sheets" May 7, 2009.

[17] Standard & Poor's "Research Update: Ratings on TRUenergy Holdings And TRUenergy Placed On CreditWatch Negative Due To Refinancing Risks" March 18, 2009.

Borrower	S&P Long-term Credit Rating	Date of announcement of refinancing.	Previous Facility Maturity Date	Months prior to facility expiration	Facility Amount ($A million)	Comments
SPI (Australia) Assets Pty Ltd	A-	Jun-09	Sep-09	3 mths	240	Funds used to refinance the company's capital market bonds. This refinancing represents 5.6%[18] of SPI (Australia) Assets Pty Ltd total debt.
Energy Partnership (Gas) Pty Ltd	BBB	Apr-09	Jul-09	3 mths	100	Refinancing of existing Medium Term Note. This refinancing represents 9.2%[19] of Energy Partnership (Gas) Pty Ltd total debt.
Envestra Victoria Pty Ltd	BBB	May-09	Nov-09	6 mths	289	Funds used to refinance an outstanding A$175m of Medium Term Notes that matured in November 2009 and A$125m loan provided by CBA that expired in Aug 2009. This refinancing represents 87.7%[20] of Envestra Victoria Pty Ltd total debt.
Broadcast Australia Pty Ltd	NR	Feb-09	Jun-09	4 mths	447	Funds used to replace the A$250m Fixed Rate Note that matured in June 2009.
CitiPower Pty Ltd	A-	Sep-09	Feb-10	5 mths	175	Funds used to refinance notes that mature in February 2010. This refinancing represents 16.3%[21] of CitiPower total debt.

[18] Based on $4,312.0m, at 31 March 2009, as quoted in S&P Ratings for SPI (Australia) Assets Pty Ltd, 29 May 2009

[19] Based on $1,084.9m, at 30 June 2009, as quoted in S&P Ratings for Energy Partnership (Gas) Pty Ltd 22 December 2009.

[20] Based on $329.7m at 30 June 2009, as quoted in note 19 of Envestra's 2009 Annual Report.

[21] Based on $1,076.3m at 31 December 2008, quoted in S&P Ratings for CitiPower Trust 5 June 2009.

Conclusion

In this report, based on the scope of our engagement and the assumptions outlined herein, we conclude that:

- the cash cost associated with the refinancing of debt based on $100 million, if it was **completed** no less than three months ahead of maturity, its estimated to be between $1.248 million and $1.498 million (equivalent to 20 bps pa and 24 bps pa);
- the cash cost associated with the refinancing of debt based if it was **committed** three months ahead of maturity would be similar to the costs for the completion method, however unlike the completion method the borrower would not have much scope to reduce costs. The cash cost associated with the refinancing of $100 million of debt, if it was committed three months ahead of maturity, is estimated to be between $1.373 million and $1.498 million (equivalent to 22 bps pa and 24 bps pa);
- the cash cost associated with the refinancing of debt based on $100 million if it was **underwritten** three months ahead of maturity is estimated to be between $2.87 million and $3.36 million (equivalent to 46 bps pa to 54 bps pa) over the 10 year tenor of the bond;
- given the above conclusions, and based on the assumptions set out in this report, the cash costs associated with the completion method represent the lowest cost of the three options for securing suitable arrangements for renewing debt three months out; and
- it is common practice for commercial business to refinance debt according to the completion method at least three months prior to the relevant debt facility expiring.

Appendices

Appendix A Terms of Reference

Scoping Brief – Early refinancing

1. Purpose

The purpose of this brief is to set out the nature, scope and purpose of work that ETSA Utilities is seeking PricewaterhouseCoopers Australia **(PwC)** to undertake in relation to early refinancing.

2. Background

ETSA Utilities' current regulatory control period is due to expire on 30 June 2010 and the next regulatory control period will commence on 31 July 2010 and run until 30 June 2015. ETSA Utilities submitted its regulatory proposal to the AER earlier this year, and the AER recently issued its draft decision.

ETSA Utilities proposed a cost for the early refinancing of debt using the completion method, and attached a Standard & Poor's article[22] as supporting evidence. The AER, in its draft decision, rejected the costs of the completion method as it did not consider that this method represented the costs that would be incurred by an efficient benchmark network service provider. The AER noted that ETSA Utilities did not closely investigate the two alternative approaches - the commitment approach and the underwriting approach - referred to by Standard & Poor's.

3. Scope of works for PwC

3.1. Preparation of the Report

ETSA Utilities is seeking PwC to:

- Identify whether it is currently standard practice for an Australian investment grade corporate to complete, commit or underwrite the refinancing of an impending debt maturity, at least three months prior to the maturity date. Also, to consider whether standard practice differentiates for varying volumes of maturing debt. Provide evidence to support the conclusion; and
- Define the three options of completing, committing or underwriting the refinancing mentioned in the Standard & Poor's article. Generically cost the three options of refinancing three months prior to the maturity date. Identify any other considerations for an Australian investment grade corporate in selecting between these three options. Identify the approach

[22] Standard & Poor's. Refinancing And Liquidity Risks Remain, But Australia's Rated Corporates Are Set To Clear The Debt Logjam. April 22 2008.

that is likely to be most efficient for an Australian investment grade corporate.

The report must contain the following:

- The terms of reference;
- The qualifications of the person(s) preparing the report;
- Identify any pre-existing relationship the person(s) and/or PwC has with the businesses;
- Clearly and fully set out all the relevant facts;
- Explain the person(s) process of reasoning;
- Reference any documents relied on by the person(s);
- Include specified wording at the end of the report stating that "[the person(s)] has made all the inquiries that [the person(s)] believes are desirable and appropriate and that no matters of significance that [the person(s)] regards as relevant have, to [the person(s)] knowledge, been withheld"; and
- State that the person(s) have been provided with a copy of the Federal Court's "Guidelines for Expert Witnesses in Proceeding in the Federal Court of Australia" (Attachment 1) and that the Report has been prepared in accordance with those Guidelines.

ETSA Utilities emphasises that the report prepared by PwC will be provided to the AER in support of its revised regulatory proposal. Accordingly the report may become a public report.

3.2. Expert Witness

As noted, ETSA Utilities intends to provide a copy of PwC's report to the AER in support of its revised regulatory proposal. The person(s) may be required to act as an expert witness in relation to the advice provided in the report.

ETSA Utilities has attached a copy of the Federal Court's "Guidelines for Expert Witnesses in Proceeding in the Federal Court of Australia". These Guidelines contain useful direction regarding the steps that should be taken by potential witnesses to ensure the appropriate level of objectivity.

3.3. Timing

A draft report should be provided by 18 December 2009, and finalised by 8 January 2010.

Attachment 1

Guidelines for Expert Witnesses in Proceedings in the Federal Court of Australia

Practice Direction

This replaces the Practice Direction on Guidelines for Expert Witnesses in Proceedings in the Federal Court of Australia issued on 6 June 2007.

Practitioners should give a copy of the following guidelines to any witness they propose to retain for the purpose of preparing a report or giving evidence in a proceeding as to an opinion held by the witness that is wholly or substantially based on the specialised knowledge of the witness (see **- Part 3.3 - Opinion** of the *Evidence Act 1995* (Cth)).

M.E.J. BLACK
Chief Justice
5 May 2008

Explanatory Memorandum

The guidelines are not intended to address all aspects of an expert witness's duties, but are intended to facilitate the admission of opinion evidence (footnote #1), and to assist experts to understand in general terms what the Court expects of them. Additionally, it is hoped that the guidelines will assist individual expert witnesses to avoid the criticism that is sometimes made (whether rightly or wrongly) that expert witnesses lack objectivity, or have coloured their evidence in favour of the party calling them.

Ways by which an expert witness giving opinion evidence may avoid criticism of partiality include ensuring that the report, or other statement of evidence:

(a) is clearly expressed and not argumentative in tone;

(b) is centrally concerned to express an opinion, upon a clearly defined question or questions, based on the expert's specialised knowledge;

(c) identifies with precision the factual premises upon which the opinion is based;

(d) explains the process of reasoning by which the expert reached the opinion expressed in the report;

(e) is confined to the area or areas of the expert's specialised knowledge; and

(f) identifies any pre-existing relationship (such as that of treating medical practitioner or a firm's accountant) between the author of the report, or his or her firm, company etc, and a party to the litigation.

An expert is not disqualified from giving evidence by reason only of a pre-existing relationship with the party that proffers the expert as a witness, but the nature of the pre-existing relationship should be disclosed.

The expert should make it clear whether, and to what extent, the opinion is based on the personal knowledge of the expert (the factual basis for which might be required to be established by admissible evidence of the expert or another witness) derived from the ongoing relationship rather than on factual premises or assumptions provided to the expert by way of instructions.

All experts need to be aware that if they participate to a significant degree in the process of formulating and preparing the case of a party, they may find it difficult to maintain objectivity.

An expert witness does not compromise objectivity by defending, forcefully if necessary, an opinion based on the expert's specialised knowledge which is genuinely held but may do so if the expert is, for example, unwilling to give consideration to alternative factual premises or is unwilling, where appropriate, to acknowledge recognised differences of opinion or approach between experts in the relevant discipline.

Some expert evidence is necessarily evaluative in character and, to an extent, argumentative. Some evidence by economists about the definition of the relevant market in competition law cases and evidence by anthropologists about the identification of a traditional society for the purposes of native title applications may be of such a character. The Court has a discretion to treat essentially argumentative evidence as submission, see Order 10 paragraph 1(2)(j).

The guidelines are, as their title indicates, no more than guidelines. Attempts to apply them literally in every case may prove unhelpful. In some areas of specialised knowledge and in some circumstances (eg some aspects of economic evidence in competition law cases) their literal interpretation may prove unworkable.

The Court expects legal practitioners and experts to work together to ensure that the guidelines are implemented in a practically sensible way which ensures that they achieve their intended purpose.

Nothing in the guidelines is intended to require the retention of more than one expert on the same subject matter – one to assist and one to give evidence. In most cases this would be wasteful. It is not required by the Guidelines. Expert assistance may be required in the early identification of the real issues in dispute.

Guidelines

1. General Duty to the Court (footnote #2)

1.1 An expert witness has an overriding duty to assist the Court on matters relevant to the expert's area of expertise.

1.2 An expert witness is not an advocate for a party even when giving testimony that is necessarily evaluative rather than inferential (footnote #3).

1.3 An expert witness's paramount duty is to the Court and not to the person retaining the expert.

2. The Form of the Expert Evidence (footnote #4)

2.1 An expert's written report must give details of the expert's qualifications and of the literature or other material used in making the report.

2.2 All assumptions of fact made by the expert should be clearly and fully stated.

2.3 The report should identify and state the qualifications of each person who carried out any tests or experiments upon which the expert relied in compiling the report.

2.4 Where several opinions are provided in the report, the expert should summarise them.

2.5 The expert should give the reasons for each opinion.

2.6 At the end of the report the expert should declare that "[the expert] has *made all the inquiries that* [the expert] *believes are desirable and appropriate and that no matters of significance that* [the expert] *regards as relevant have, to* [the expert's] *knowledge, been withheld from the Court*."

2.7 There should be included in or attached to the report; (i) a statement of the questions or issues that the expert was asked to address; (ii) the factual premises upon which the report proceeds; and (iii) the documents and other materials that the expert has been instructed to consider.

2.8 If, after exchange of reports or at any other stage, an expert witness changes a material opinion, having read another expert's report or for any other reason, the change should be communicated in a timely manner (through legal representatives) to each party to whom the expert witness's report has been provided and, when appropriate, to the Court (footnote #5).

2.9 If an expert's opinion is not fully researched because the expert considers that insufficient data are available, or for any other reason, this must be stated with an indication that the opinion is no more than a provisional one. Where an expert witness who has prepared a report believes that it may be incomplete or inaccurate

without some qualification, that qualification must be stated in the report (footnote #5).

2.10 The expert should make it clear when a particular question or issue falls outside the relevant field of expertise.

2.11 Where an expert's report refers to photographs, plans, calculations, analyses, measurements, survey reports or other extrinsic matter, these must be provided to the opposite party at the same time as the exchange of reports (footnote #6).

3. Experts' Conference

3.1 If experts retained by the parties meet at the direction of the Court, it would be improper for an expert to be given, or to accept, instructions not to reach agreement. If, at a meeting directed by the Court, the experts cannot reach agreement about matters of expert opinion, they should specify their reasons for being unable to do so.

footnote #1
As to the distinction between expert opinion evidence and expert assistance see *Evans Deakin Pty Ltd v Sebel Furniture Ltd* [2003] FCA 171 per Allsop J at [676].

footnote #2
See rule 35.3 Civil Procedure Rules (UK); see also Lord Woolf "Medics, Lawyers and the Courts" [1997] 16 CJQ 302 at 313.

footnote #3
See *Sampi v State of Western Australia* [2005] FCA 777 at [792]-[793], and *ACCC v Liquorland and Woolworths* [2006] FCA 826 at [836]-[842]

footnote #4
See rule 35.10 Civil Procedure Rules (UK) and Practice Direction 35 – Experts and Assessors (UK); *HG v the Queen* (1999) 197 CLR 414 per Gleeson CJ at [39]-[43]; *Ocean Marine Mutual Insurance Association (Europe) OV v Jetopay Pty Ltd* [2000] FCA 1463 (FC) at [17]-[23]

footnote #5
The *"Ikarian Reefer"* [1993] 20 FSR 563 at 565

footnote #6
The *"Ikarian Reefer"* [1993] 20 FSR 563 at 565-566. See also Ormrod *"Scientific Evidence in Court"* [1968] Crim LR 240.

Appendix B Curriculum vitae

Matthew Santoro

Executive Director

Qualifications and memberships:

- Bachelor of Economics (Honours), University of Adelaide
- Affiliate, Institute of Chartered Accountants

Matthew has over 20 years of corporate and institutional banking experience, including 12 years at Deutsche Bank and eight years at Citibank. At Deutsche Bank he held various senior banking positions covering the origination, structuring and syndication of debt facilities. Following this and prior to joining PwC, Matthew jointly established and was Joint National Head of KPMG's debt advisory practice for a period of five years.

Project experience:

Matthew is experienced in a wide range of financing and fundraising transactions, in particular in the area of acquisition financing, leverage financing, re-financings, project and property financing and procurement of debt capital markets instruments across the Australian, European and USA markets. His experience includes dealings with credit rating agencies such as Standard & Poor's and Moody's.

Matthew has advised numerous companies on their debt and capital management needs, including the procurement of debt across a very broad industry sector. His clients have included the following:

- CSL
- David Jones
- Boom Logistics
- Pacific Brands
- Healthscope
- Hastings Funds Management
- Future Fund
- Australian Super
- Deutsche Asset Management
- South East Water
- Computershare
- ORIX Corporation
- Toll Holdings, and
- Tabcorp

Matthew's experience covers capital management and financing applications for a wide range of structures, asset types and industries. Matthew has over 20 years of debt markets experience with extensive dealings and established relationships with key participants in the capital markets such as banks, borrowers, fund and fixed interest managers, private equity investors, credit rating agencies, legal firms, etc.

Matthew's sector experience includes:

- debt structuring, arranging and procurement, onshore and offshore
- US Private Placement, Australian and European Bond markets
- capital management, and
- credit rating agencies.