INDIRECT COSTS OF EQUITY AND DEBT RAISING

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Introduction

The cost of raising external debt and equity involves both direct and indirect flotation costs. Direct flotation costs comprise underwriting and management fees and out of pocket expenses. Indirect flotation costs can include issue underpricing, where the new debt or equity security is sold at a discount to current market prices. The AER's Draft Decision for TransGrid dated 31 October 2008 ("AER Draft") argues for the exclusion of indirect costs. Furthermore, the AER rejected the need for TransGrid to raise any external equity finance.

The purpose of this paper is to address whether TransGrid needs to raise any new external equity, address whether indirect costs are a legitimate cost of raising new funds, and how best to estimate these indirect costs[1].

We address this issue by taking as a starting point the AER's assumption that the benchmark efficient firm should be a large listed firm. In this paper we review the methods by which companies raise new equity and debt, and demonstrate that the granting of discounts is an essential part of the fundraising process. We then consider how best to estimate these costs in light of likely funding requirements.

Conclusions and Recommendations

TransGrid will need new external equity over the contract period in order to assist repay debt and fund dividend payments

1. The cash flow forecasts prepared by the AER do not allow for the full distribution of imputation credits over the forecast period. The forecast dividend based on the 70% payout assumption results in the accumulation of $124 million of imputation credits in TransGrid. The benefit of these imputation credits will not be received by equity holders, thus lowering the rate of return received by equity holders below that promised by the valuation analysis. We recommend that in forecasting the amount of external equity required that the AER adopt a dividend policy assumption which ensures all imputation credits created are distributed to equity holders. This will ensure comparability with the valuation analysis and provides a dividend strategy consistent with market conditions (Section 1.1).

2. Consequently the dividends need to be increased. We recommend a policy whereby dividends are set so as to fully distribute imputation credits on a timely basis. This would result in an additional $290 million of dividends being distributed over the control period.

3. The cash flow forecasts used to forecast funding requirements should be the same as those used in determining returns to equity holders. Otherwise equity holders are not getting the return which is expected. The AER's forecast of external equity requirements omits repayment of existing maturing debt. The AER allows for new debt to fund

[1] This paper does not address at all the question or level of direct flotation costs.

additional capital expenditure, but does not allow for refinancing maturing debt. In calculating the rate of return for equity holders it does make such an allowance..

4. As a result, TransGrid will need to raise new external equity funding to meet this extra dividend requirement. This is not an unusual situation for a listed company with a high level of imputation credits.

   New external equity does incur indirect costs due to the discount on issue. This cost is additional to the direct cost allowed by the AER

5. Although the AER has allowed for the direct cost of new equity raising they have not done so for indirect costs, which largely comprise discounts on the issue of new shares. The AER argues that the indirect costs of new equity are not an allowable expenditure. The AER argues that because companies use rights issues the discount on a new issue does not impose a cost on shareholders. They also argue that no additional return over and above the CAPM returns is required by investors in order for them to provide funds.

6. We demonstrate that the AER's assertion about the dominant role of rights issues and their apparent cost free nature does not accord with evidence and market practice. In most major economies, including Australia, rights are not the most common form of equity raising. Other methods, such as placements, which are more effective at generating demand from new investors and providing quicker execution (thus reducing risk) and are more common. The main technique in Australia is the placement. The amount raised via placements since 1990 is 66% greater than the amount raised via rights (Section 2.1.1 and 2.1.2).

7. Finance theory, extensive empirical evidence and market practice all confirm that raising new equity will generate a cost over and above the return implied by the CAPM. In the context of a rights issue, costs are imposed on equity holders who do not wish to participate in the issue. Price is also adversely affected as non participating shareholders simply sell their rights and shares on the market. Unless take-up of a rights issue by existing shareholders is extremely high then a rights issue will create costs for non participating shareholders, and have adverse market impact as shareholders sell their rights on the market. Capital constrained investors and diverse shareholder bases are usually associated with lower take-up levels. (Section 2.1.3).

8. When rights issues are used they are mostly for fund raisings in excess of 15% of existing equity, as mandated by ASX listing rules. It is therefore not clear that, even when rights issues are used, whether the choice of a rights issue is motivated by the opportunity to issue at low cost or the need to meet regulatory requirements. We provide evidence that when Australian companies have been able to choose between rights and placements, they will commonly choose the placement (Section 2.1.3).

9. Placements are generally offered at a discount (or underpricing) to attract new investors. This discounting serves the important economic function of attracting investors who provide liquidity, bear risk and provide information. The process adopted in these non

rights equity raisings effectively market and promote the issuing entity to investors. However the discount is a cost to existing shareholders as the discount transfers value to to new investors (Section 2.1.3.).

10. The CAPM is not designed to price newly issued securities. Underpricng serves an economic role in the sale of newly issued securities and is driven by liquidity needs, asymmetrical information and price pressure resulting from supply of new securities. These circumstances are all effectively assumed away for the CAPM. Indeed the so - called pecking order model used by the AER to determine whether any equity is required to fund capex is built on assumptions that are all assumed away by the CAPM (Section 2.2).

11. The cost of underpricing can be estimated by measuring the discount on placements. This measures the proportion of value being transferred to new investors. The cost of a rights issue is harder to measure, largely because it is borne by the shareholders who do not participate. We demonstrate that companies are effectively comparing the relative costs when deciding how to issue new equity. The popularity of placements suggests that the cost of placements will be lower than a rights issue, in most circumstances (Section 3.1).

12. We show that a major determinant of the relative cost of rights and placements is the level of take-up by existing shareholders. At typical take-up levels we argue that the cost of a rights issue is approximated by the discount required on a placement (Section 3.1).

13. Based on analysis of US data and Australian examples we conclude the cost of underpricing on an equity raising in Australia is in the range of 5% to10%, depending on market conditions, issuers circumstances and the level of participation by existing shareholders (Section 2.2).
14. **The indirect cost of equity should allow for the use of a Dividend Reinvestment Plan, with the balance to be provided by a seasoned equity offering**

15. We recommend allowance be made for the operation of a Dividend Reinvestment Plan ("DRP"). DRPs are effectively non renounceable rights issues. Given voluntary participation levels of around 30% we estimate the indirect cost of the DRP is 3.5%. This should be included in the costing of new external equity (Section 3.3.2).

16. Proposals have been made to include an estimate of the indirect costs of retained earnings. It is based on attempting to measure the cost of deviating from the optimal dividend policy. We recommend a more straightforward method, which is simply to assume that the optimal dividend policy is maintained. We argue that this optimal dividend policy is that which ensures imputation credits are fully distributed. This recommendation implies that any additional external funding will be met with a combination of new debt and equity. Target capital structure (of 60/40) and target dividend policy will both be maintained (Section 3.3.3).

Allowance should also be made for underpricing associated with debt raising

17. We recommend an allowance also be included for the indirect cost of debt financing. As with equity underpricing is an economic cost of attracting liquidity and risk bearing investors to subscribe to new issue. Estimates are more subjective here due to limitations of data availability, however an estimate of indirect costs of 3 bppa for an equivalent US issuer can be supported. These would serve as a lower bound on an estimate for cost in the Australian market given the lower liquidity in Australia. These underpricing costs would be added to the estimate direct costs of raising new debt. (Section 4).

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1. Does TransGrid need to raise external equity?

In the AER draft decision (page 146) the AER states:

> *"Based on the capex allowance in this draft decision, the benchmark cash flow analysis indicates that Transgrid would be able to fund its capex program over the next regulatory period with retained cash flows and therefore does not require additional equity finance"*

In preparing this forecast the AER draft has adopted a 70% payout ratio, and has used this assumption in preparing estimates of the amount of external equity required each year (as reflected in the AER Draft decision PTRM). While a 70% payout ratio sounds reasonable under most circumstances, its use in this case appears to generate a number of issues about the underlying projections. In particular, there appear to be inconsistencies between (i) forecast cash flows used to estimate external funding requirements ("*Funding analysis scenario"*), and (ii) cash flows used to estimate the return to equity holders over the control period (" *Equity holders return scenario*").

Under the forecasts it appears that equity holders are receiving higher net cash flows than what is required to give them the required return. However the dividends are not sufficient to fully distribute available imputation credits. As a result, imputation credits are being accumulated within TransGrid, and these will not be distributed to equity holders. This will lower the actual return of equity holders.

The solution to this problem is to ensure that the:

- forecast used to calculate external funding required is the same as that used to demonstrate that equity holders are receiving the target rate of return;
- imputation credits are fully distributed as they occur.

In the case of TransGrid this implies that:

- dividends should be increased to ensure imputation credits are fully distributed. We estimate dividends need to increase by $290 million over the control period to meet this objective;
- external equity needs to be raised to fund the dividend payment.

Although this does appear to be circular, it is a common situation faced by listed companies that have imputation credits which need to be distributed to shareholders. Unless imputation credits are distributed then equity holders will not receive the 11.46% required return. The value of imputation credits is included in the measurement of this return to equity holders.

Resolution of each of these issues will have a material impact on estimates of the amount of external funding required. It is recommended that these discrepancies be reconciled before estimates of the costs of external funding can be finalised, otherwise the funding scenario projections will be different to those used to generate equity holders returns.

The question of dividend policy still needs to be addressed. My recommendation is that the dividend policy should be set to ensure full distribution of franking credits each year. This policy is most consistent with the valuation parameters used to determine allowable revenue for TransGrid, and is close to market parameters. It provides a sensible compromise to the debate concerning the 70% payout versus the 8% yield approach recommended by CEG.

The following section examines these issues in more detail.

1.1 Inconsistencies between cash flow projections, new funding required and imputation credits distributed

To demonstrate these concerns we have used the forecasts prepared by the AER in their draft decision for TransGrid. My comments below are based on forecasts provided in the spreadsheet "AER Draft decision for Transgrid.xls". Two worksheets referred to are "Analysis" and "Equity Raising Costs – capex".

Key results from these spreadsheets are summarised in Table 1 and Table 2.

Table 1 shows the forecast dividend payout and amount of external funding requirement estimated by the AER (Worksheet: Equity raising Costs – capex). These have been used to estimate the direct costs of external equity (the *'funding analysis scenario'*). The net of these two items shows the net amount returned to, or raised from, equity holders. This does not include the benefit of imputation credits, as the cash flows are being used to estimate funding requirements. ***The forecasts prepared by the AER show that over the period equity holders will not be required to contribute new equity over the whole period, although equity will be required on 2009 – 2010 and 2011 – 2012.***

Table 1
'Funding scenario'
Forecast Dividend payments and External Equity Requirements
2009-10 to 2013-14
[$ millions]

	Year	2090-10	2010-11	2011-12	2012-13	2013-14	Total
1.	**Dividends paid**	**48**	**56**	**70**	**58**	**55**	**287**
2.	**External equity (SEO)**	**25**		**19**			**-44**
3.	**Net cash flow to equity**	**23**	**56**	**51**	**58**	**55**	**244**
4	**Value of imputation credits distributed to equity holders**	**10**	**12**	**15**	**12**	**12**	**62**
8.	**Equity component of Final year RAB**					**2621**	
Source: *AER Draft decision for Transgrid – PTRM..xls; Worksheet: equity raising costs - capex*							

Table 2 shows the cash flows from the "Analysis" worksheet. This worksheet is meant to demonstrate that equity holders earn the required return on equity over the five year period (the '*equity holders return scenario*'). The cash flows in Row 1 of Table 2 provide equity holders with a return of 11.46%, assuming that the equity is worth $2621 million at the end of the five year period. Row 2 of Table 2 shows the cash flows received by shareholders excluding the value of imputation credits. This is the item we need to compare to the cash flows used to estimate funding requirements.

Table 2
'Equity holders return scenario'
Forecast Cash Flows to Equity Holders
[Regulatory Control Period Analysis]
($ millions)

	Year	2090-10	2010-11	2011-12	2012-13	2013-14	Total
1.	**Cash Flow to equity holders including imputation credits**	**-3**	**53**	**17**	**54**	**140**	**261**
2.	**Cash flow to equity excluding imputation credits**	**-25**	**30**	**-6**	**28**	**111**	**78**

3.	**Value of credits included in equity holders return**	**22**	**24**	**23**	**26**	**29**	**124**
4.	**Equity component of Final year RAB**					**2621**	
Source: *AER Draft decision for Transgrid – PTRM .xls; Worksheet: Analysis*							

These two tables have been based off the same set of forecasts however they appear to be inconsistent, in three very important respects:

- The different cash flows also ***imply different amounts of equity*** need to be raised under the two scenarios. The cash flows from the two scenarios are summarised in Table 3. The first row shows that, for the 'funding scenario', equity holders are expected to receive net dividends over the period of $244 million, while the second row shows that under the 'equity holders return scenario' equity holders are expected to receive $138 million in cash flow (excluding the value of imputation credits in both cases). ***This implies a difference in total distributions of $106 million over the five year period.***

  The difference appears to largely arise from the fact that the forecasts used for funding do not appear to include any allowance for debt repayment. These differences are easily fixed by just using the same forecast.

Table 3
Comparison of cash flows under 'funding scenario' and 'equity holders return scenario'

Year	2090-10	2010-11	2011-12	2012-13	2013-14	Total
Net cash flow to equity for 'funding scenario' (from Table 1, Row 3)	**23**	**56**	**51**	**58**	**55**	**244**
Cash flow to equity excluding imputation credits for 'equity returns' (from Table 2, Row 2)	**-25**	**-30**	**-6**	**28**	**111**	**138**
Difference	**48**	**26**	**57**	**30**	**-56**	**106**

- The ***cash flows to equity holders*** are different, and so both cannot be giving the same return to equity holders[2]. ***However the cash flows in the funding scenario forecasts should give exactly the same return to equity holders as the underlying valuation scenario.*** This is demonstrated by referring to the cash flow comparison from Table 3.

- The ***amount of imputation credits*** assumed to be distributed to equity holders is different between the two scenarios. Table 4 shows that under the 'funding scenario' equity holders will only receive a value of imputation credits equal to $62 million, whereas under the 'equity holders return scenario' equity holders are forecast to receive $124 million. The difference is shown in the accumulation of imputation credits which results from the 70% payout policy assumption: at the end of the control period imputation credits will have accumulated to $124 million. Using a gamma of 0.5 attributes a value of approximately $62 million to these credits. Dividends are the only mechanism for distributing these credits. The AER's

[2] The equity share of Final year RAB is the same in both spreadsheets so the equity value at the end of the period is the same. Therefore if the intervening cash flows are different then the overall return must also be different;

WACC Parameters Explanatory Statement[3] (page 295) confirms the assumption of 100% distribution of imputation credits, and specifically precludes the use of alternative means such as streaming and buybacks to distribute these imputation credits. It is not clear how these imputation credits would ultimately be distributed to shareholders under the framework of the efficient benchmark firm, and certainly not within the time frame of the current control period. ***This therefore implies that the 70% payout policy means that equity holders will not receive the target return of 11.46% over the period.***

The obvious implication of this is that dividends need to be increased to facilitate the full distribution of imputation credits. This is discussed further in the following section however Table 4 shows that if imputation credits are to be fully distributed then a total of $577 million in dividends needs to be paid over the period. This is $290 million higher than the 70% payout ratio case.

[3] AER, "Electricity transmission and distribution network service providers: review of weighted average cost of capital (WACC) parameters Explanatory Statement, December 2008,

Table 4
Comparison of imputation credits distributed under 'funding scenario' and 'equity holders return scenario'

Year	2090-10	2010-11	2011-12	2012-13	2013-14	Total
Value of imputation credits distributed to equity holders (Table 1, Row 4)	10	12	15	12	12	62
Value of credits included in equity holders return (Table 2, Row 3)	**22**	**24**	**23**	**26**	**29**	**124**
Difference	**-12**	**-12**	**-8**	**-14**	**-17**	**-62**
Unutilised imputation credits[4]	**24**	**23**	**16**	**27**	**34**	**124**
Accumulated unused imputation credits	**24**	**47**	**63**	**90**	**124**	
Dividends required to fully distribute imputation credits	**105**	**109**	**107**	**121**	**135**	**577**

It is therefore recommended these two cash flow scenarios be bought into line with each other. The guiding principle should be that the cash flows used to develop funding scenarios should be the same as those used to demonstrate equity holders are receiving their required return.

1.2 Recommendation on dividend policy

The question of dividends is somewhat distorted by the fact that, whatever dividends are paid out, equity holders will be required to contribute back to the entity new equity funds in excess of dividends received. The funding scenario described above suggests that dividends of $287 million will be received by investors over the control period but that $577 million needs to be distributed to ensure imputation credits are fully distributed. If higher dividend payments are made then the external funding requirement is simply increased by the same amount.

[4] Unutilised imputation credits in each year are calculated as the difference between forecast tax paid, as per the AER spreadsheet, and the dividends x tax rate / (1 - tax rate)

The AER has argued that an 8% yield is unsustainable as it exceeds profit after tax forecasts. CEG argue it is sustainable as the 8% yield is lower than the cost of equity returns which the business is generating. This is a valid argument. In fact even if investors receive an 8% yield they will still be expecting a capital gain in the order of 3.46% per annum in order to bring them up to the required equity return. However the question that arises from this is how much benefit is derived by paying the 8% yield when it will simply be required back by the entity to fund capital expenditure.

The argument for the 8% yield is that it is line with yields paid in this sector, and presumably appeals to an investor base seeking income and imputation credits. However given the funding requirements over the control period, this particular investor base is unlikely to wish to reinvest dividends, plus contribute additional equity. Over time new investors will likely subscribe to new shares. However the 70% payout ratio will only be providing yields of under 3%[5]. As noted earlier this policy will also result in the accumulation of imputation credits. To the extent that financial policies can be associated with clienteles it is not clear what investor types would be attracted by this policy.

For an existing business, dividend policy would also be influenced by existing dividend levels. Even under these circumstances companies would attempt to maintain dividends in order to avoid adverse signalling effects of a cut in dividends. However it is not clear whether there is an existing agreed dividend policy for NSPs. However if we were to assume that it was in line with current market levels of, say, 8% then it would be appropriate to argue that this would be a reasonable starting point.

There are four potential broad policy options for dividends***:***

70% payout: as noted this will result in very low yields and will lead to the accumulation, and potential wastage, of sizable imputation credits. Furthermore if the AER is concerned about sustainability relative to profit after tax, then why not just choose a 100% payout;

8% yield: is sustainable in the context of the business's long term performance but over the control period higher dividends will be funded by raising new equity, and likely put more pressure on the existing equity holders to maintain their holding;

Assume current 8% yield but maintain dividend in absolute dollar terms: this is consistent with an assumption that dividends are currently in line with market levels but that future funding requirements will lead to greater use of retained earnings. However the company decides not to reduce the dollar amount of dividends due to potential advisers signalling effects;

Set dividends to ensure imputation credits are fully distributed: this policy is most consistent with the valuation parameters used in determining revenue. As noted earlier,

[5] This is based on dividing the forecast dividends at 70% payout by the estimated equity component of RAB each year.

failure to distribute imputation credits means that equity holders will not receive a portion of the value that has been assumed in the revenue determination.

Table 5 shows the forecast dividends that would result under each strategy, based on the forecasts for TransGrid used in the draft decision.

Table 5
Alternative dividend forecasts under alternative dividend policies
[$ million]

Policy	2090-10	2010-11	2011-12	2012-13	2013-14	Total
70% payout	**48**	**56**	**70**	**58**	**55**	**287**
8% yield	**135**	**151**	**164**	**182**	**198**	**846**
Maintain at 8% on opening equity value	**135**	**135**	**135**	**135**	**135**	**675**
Fully distribute imputation credits	**105**	**109**	**107**	**121**	**135**	**577**

We recommend the policy that fully distributes imputation credits, as it is most compatible with the valuation assumptions, and gives an acceptable yield under current market conditions. Adoption of this policy would result in an additional $290 million of new external funding being required. It should be noted that any dividends paid in excess of the policy to fully distribute would be unfranked dividends.

1.3 Revised estimate of external equity required by TransGrid

The combined impact of these recommendations is summarised in Table 6. It shows that the amounts of new equity required by TransGrid over the contract period will $433 million. This incorporates the effect of allowing for debt refinancing and paying out dividends to ensure imputation credits are distributed. It should be noted that even the adjustment for maturing debt generates the need for new external equity on the part of TransGrid

Table 6
Revised estimate of TransGrid's SEO Requirements
[$ million]

	2090-10	2010-11	2011-12	2012-13	2013-14	Total
AER Original assessment	**25.4**	**-24.5**	**18.7**	**-7.8**	**-87.7**	**-76.0**
Adjustment for maturing debt	**43.2**	**43.6**	**38.7**	**44.1**	**49.6**	**219.2**
Revised SEO Requirement	**68.6**	**19.1**	**57.4**	**36.3**	**-38.1**	**143.3**
Additional dividend to fully distribute imputation credits	**57**	**53**	**37**	**63**	**80**	**290**
Revised SEO Requirement	**125.6**	**72.1**	**94.4**	**99.3**	**41.9**	**433.3**
Total dividends paid	**105**	**109**	**107**	**121**	**135**	**577**

Having established the need for new external equity it is appropriate to examine the costs of this equity.

2. Should indirect costs of equity be recognised as a legitimate cost of a benchmark network service provider?

Having established that new external equity is in fact required we need to address the question as to whether the indirect costs of raisng this equity are a legitimate cost. We do not address the question of direct costs as the AER has already allowed these an a capital expenditure item.

The AER Draft (p 141) argues that indirect costs of raisng new equity should be excluded on two counts:

- To the extent that external equity is needed a large listed company should be able to complete a seasoned equity offering using a rights issue. It is generally regarded that such issues, even when issued at large discounts, are not dilutive to existing shareholders. The AER also states that such fund raisings are the most common form of seasoned equity offering;

- Secondly, the AER also argues that investors should be fully compensated by earning returns in line with the CAPM; such returns should be sufficient to induce new investors to provide equity.

Neither of these arguments is robust when tested against modern corporate finance theory, empirical results or common market practice. We explore each of these arguments below.

2.1 Rights issues as a source of equity

The AER argues that underpricing is not really a true cost to existing shareholders because there has been no dilution of shareholder wealth [AER Draft, p 141]:

> *"a firm…can use a rights issue where the firm offers shares at a discount to its existing shareholders. This is the most common practice for seasoned equity offerings. In a rights issue, even though the shares are offered at a discount, the existing shareholders benefit from the entire discount and there should be no wealth transfer to new shareholders or loss by existing shareholders. If they do not wish to invest shareholders can sell their rights (as rights are normally renounceable) or alternatively they can sell some of their existing shares to give them the funds to take up the rights" [AER Draft, page 141]*

The AER asserts that rights issues are the most common form of seasoned equity offering, and also acknowledges that shares sold under a rights issue will be offered at a discount. If this assertion were correct then we would see rights issues as the most common, if not sole, source of equity raising.

Furthermore we would expect to see issues made at significant discounts, and a neutral market response to the presence of discounts. With a rights issue, shareholders have a period of about three to four weeks before they have to commit to whether they should subscribe. On the last day of the offer period they will usually accept if the market price exceeds the subscription price in the rights offer. If the market price on the last day is lower than the subscription price, then shareholders will not subscribe. Setting the subscription price on the new shares at a discount to the current market price would increase the probability of existing shareholders subscribing to the offer, as the discount will provide protection against downward moves in the market over the period of the rights issue process. These potential downward moves could be either market wide or company specific. A larger discount should therefore maximise the chances of shareholders taking up the offer. According to the AER's reasoning, given that discounts do not involve a cost to shareholders a large discount will enhance the chance of success and therefore will be adopted by most companies.

Similarly, we should see a high rate of voluntary participation in Dividend Reinvestment Plans, as investors take the opportunity to acquire additional shares at a discount with nil brokerage.

The actual practice of seasoned equity raisings is at odds with these implications and therefore contradicts the AER's argument concerning the dominant role of rights issues and their apparent cost free nature. Our arguments in support of this are presented in detail below, and include:

- Rights issues are not the most common form of equity raising in Australia, nor in most well developed capital markets. These conclusions apply to utilities as well as industrial and service companies (Section 2.1.1);

- Evidence from Australian markets shows that the market reacts negatively to large discounts in rights issues. Companies with large discounts in their rights issues have, on average, 4% wiped from their total market value. This is economically material, equalling about 8% of the issue proceeds. This is inconsistent with an argument that rights issues do not cost anything (Section 2.1.2);

- Rights issues do involve costs. Unless all shareholders subscribe then costs are incurred by shareholders who do not participate. The average take-up of existing shareholders in rights issues is 66%. The costs of a rights issue occur whether the issue is renounceable or non-renounceable. Furthermore, in many instances, rights appear to be used as a result of regulatory requirements, specifically the 15% limit on placements in any twelve month period, rather than due to any cost advantages (Section 2.1.3);

- The most common form of equity raising in Australia, and internationally, is the use of placements. Under a placement, shares are issued to new investors at a discount and so involve the dilution of existing shareholders. This underpricng

serves to reward new investors for providing liquidity, bearing risk and providing information about demand for shares. The placement is a better method for placing shares with new investors due to the bookbuild and placement processes (Section 2.1.1 and Section 2.1.4).

- An Australian regulated company with large funding requirements would most likely need to utilise a range of equity funding sources but these will commonly involve dilution of existing shareholders' wealth or impose costs on existing shareholders (Section 2.1.5).

We examine each of these points in detail below.

2.1.1 Rights issues are NOT the most common form of seasoned equity raising.

The AER's asserts that rights issues are "the most common practice for seasoned equity offerings" (AER Draft, page 141). This is not supported by empirical data.

The use of rights issues in Australia

Table 7 presents recent data on seasoned equity offerings in Australia. It shows that placements have been the single largest method of seasoned equity offering, used to raise considerably larger amounts of equity than rights issues. The amount of equity raised via placements since 1990 is 66% greater than that raised via rights issues. In fact, Dividend Reinvestment Plans have been used to raise a similar amount to that raised via rights issues. For the years 2007 and 2008 placements have been used to raise double the amount of capital raised via rights issues.

Table 7
ASX Capital Raising
($ b)

	Financial year ending	2008	2007	2001 – 2006	1991 - 2000
Primary raisings					
	IPOs	11.2	19.7	40.7	
Secondary Raisings					
	Rights Issues	12.5	13.0	34.0	29.0
	Placements & SPP's	22.2	29.8	56.7	39.9
	DRP's	11.6	9.0	32.5	31.6
	Other	4.2	6.4	30.75	18.7
Total Secondary Raisings		50.5	58.2	153.9	119.2

Source: *ASX Fact Book 2001; KPMG Survey of Australian Capital Markets 2007-08; Australian Cash Equity Market, September 2008, Australian Securities Exchange,*

Definitions of each of these terms is included in Appendix 1.

The extensive use of placements is further demonstrated by examining the number of issues using each technique, as distinct from absolute dollar amounts raised. Chan and Brown[6] examined the use of rights issues and placements for the period July 1996 to March 2001. Table 8 presents summary results of this research[7]. In interpreting these results it is important to note that, in Australia, ASX listing rules require companies seeking to increase ordinary capital by greater than 15% in any one year to either obtain shareholder approval for a placement or undertake a rights issue. In any one year placements under 15% of ordinary capital can be completed without shareholder approval. Key conclusions to be drawn from these results are:

- rights issues accounted for only 15% of all issues, the balance being placements;

- of the rights issues, only 8.9% were for amounts less than the regulatory ceiling. The remaining 91.1% of rights issues were for amounts that exceeded the regulatory limit, described as 'compulsory' i.e. whenever the equity requirement was less than the regulatory limit issuers predominantly chose placements;

[6] H. Chan and R. Brown, (2004), "Rights issues versus placements in Australia: Regulation or choice?" C&S Law Journal, Vol 22, p301 - 312.

[7] Table 6 shows that the dollar value of placements has exceeded those of rights during the period of this study, and subsequently. We have no reason to believe these results are not still valid.

- 54% of the placements were in excess of the regulatory limit, indicating issuers preferred to undergo the shareholder approval process for a placement, rather than undertake a rights issue.

Table 8
Placements and rights issues in Australia, July 1996 – March 2001
[Number of Issues]

Type of seasoned equity offering	Number	Per cent
Placements		
Shareholder agreement not sought	675	30.9
Shareholder agreement sought and approved	1181	54.1
Sub total: placements	1856	85.0
Rights		
"Voluntary" rights issues < Limit	29	1.3
"Compulsory" rights issues > Limit	297	13.7
Sub total: rights	326	15.0
Total	2182	100.0
Source: *Chan and Brown, Note 3*		

International use of rights issues

The low level of rights issuance is typical of many developed capital markets. Eckbo, Masulis and Nori[8] note the low and / or declining use of rights issuance in Canada, Japan, United Kingdom and Hong Kong. In the United States, firm commitments are the most common form of seasoned equity offering and significantly outweigh the use of underwritten rights and non underwritten rights[9]. Although in Australia the main

[8] E. Eckbo, R. Masulis and O. Nori, (2007), "Security Offerings" in E. Eckbo, Handbook of Corporate Finance: Empirical Corporate Finance, Volume 1. North Holland. [Not independently verified]
[9] Known as standby rights and uninsured rights, respectively, in the United States.

alternative to rights is the placement, in the United States the firm commitment can be either a placement or a general offer to the public (uncommon in Australia). In either case they involve an underwritten offering of shares principally to investors who are not currently shareholders of the issuing company.

Table 9 presents details of offering proceeds via Seasoned Equity Offerings ("SEO's") in the US for the period 1980 – 2008, for industrials and utilities[10]. It shows that utilities have used the firm commitments method to raise 170 times more equity than via rights issues. In terms of numbers of offerings by utilities, rights offers have made up less than 1% of all seasoned equity offerings by utilities.

Table 9
Offering Proceeds in Rights and Firm Commitment SEOs (USD Millions)
1980 – 2008

Offer type	**Utilities**	**Industrials**
All Offers		
No. of offers	1,067	5,890
Total proceeds	102,325	475,323
Rights offers		
No. of offers	10	145
Total Proceeds	595	9,787
Firm commitment offers		
No. of offers	1,057	5,745
Total Proceeds	101,683	465,345
Source: *B. Espen Eckbo, note 6, sourced from SDC*		

[10] B. Espen Eckbo, (2008), "Equity Issues and the Disappearing Rights Offer Phenomenon", Journal of Applied Corporate Finance, Volume 20, No 4, Fall 2008, P72 – 85

Table 10 shows the different levels of direct costs associated with different methods of seasoned equity offerings. It shows that firm commitments have the highest level of direct costs, for both industrial and utility issuers. In spite of the higher direct costs, firm commitments are the most commonly observed form of fund raising. The fact that firm commitments have higher direct costs than rights issues yet are still the most commonly used fund raising technique is described as the "rights issue paradox". We return to this in Section 3 below.

Table 10
Total direct issues costs for US issuers of seasoned equity, classified by issuer type and flotation method

	Firm commitments		Standby rights		Uninsured rights	
	Ind	Util	Ind	Util	Ind	Util
Number of observation	351	639	42	89	26	23
Total costs / Gross proceeds (%)	9.09	4.23	4.03	2.44	1.82	0.51

Source: *Eckbo and Masulis (1992), "Adverse selection and the rights issue paradox", Journal of Financial Economics 32, 292 – 322. Results relate to a sample of 1249 SEO's over the period 1963 – 1981.*

The trend towards use of placements is continuing

Borlotti, Megginson and Smart[11] document the increasing use of accelerated offerings. These involve investment banks managing an accelerated book build process with large potential investors. Transactions are completed in a matter of days. Borlotti et al state that over the last decade this form of placement has become the most common form of seasoned equity offering, used in 50% of seasoned equity offerings in the United States and for over two thirds in Europe. The current market conditions will only accelerate the use of this equity raising technique because of its ability to achieve certainty in a very volatile environment.

From an issuer's perspective the very quick execution available with a placement offers considerable advantages. In Australia a rights issue can take up to 4 – 5 weeks before its outcome is known and requires a higher level of management involvement. A placement provides certainty of funding, removes substantial risk from the process and is an efficient way of accessing new investors. In Australia it has been common to combine the

[11] B. Borlotti, W. Megginson and S. Smart, (2008) "The Rise of Accelerated Seasoned Equity Offerings", Journal of Applied Corporate Finance, Volume 20, Number 3, Summer 2008

benefits of a placement with a smaller complementary issue targeted at retail shareholders[12]. A placement is used to raise a substantial amount of the funds required, and also to set a market driven price. This subscription price will usually be at a discount to the pre-existing market price. A complementary issue targeted at retail investors can then accompany the placement; this may take the form of a rights offer, Share Purchase Plan or Dividend Reinvestment Plan. The rights issue would usually use the price from the placement / bookbuild.

Equity issues in Australia

A sample of recent equity raisings in Australia is included in Appendix 2. It includes a range of issuers all with reasonably high payout ratios who have raised equity in the last twelve months. The sample includes several rights issues, a number of placements and also several examples of where issuers have used combinations of placements and some of form of complementary issue, either rights, Share Purchase Plans or Dividend Reinvestment Plan. We will use this sample as an input into estimating the discount under current market conditions.

2.1.2 Discounts on rights issues DO matter

Following the reasoning of the AER, companies can issue deeply discounted rights offerings. As the discount is not a cost, then increasing the size of the discount will increase the probability of investor takeup and ensure a successful fund raising. However recent research on Australian rights issues suggests that the market responds negatively to larger discounts. For a sample of 636 rights offerings in Australia during 1995 – 2005 Balachandran, Faff and Theobald[13] show that firms that offered large discounts suffered negative announcement period return of -4%. This means that the total market value of the issuing entities declined by, on average, 4%. This is economically significant, and is equivalent to approximately 8% of the issue proceeds.

These results are consistent with signalling arguments. Firms signal their quality by selecting a higher subscription price (smaller discount). A large discount reflects concerns about the firm's prospects, or expectations that shareholders may not take up the offer. Failure by shareholders to subscribe reflects a lack of confidence by them, giving an adverse signal to other investors. In the context of a non underwritten offer the higher price introduces the costs associated with potential failure. In the context of an underwritten offer it reflects the underwriter's views on firm quality and likely take-up of the offer. In both cases a higher discount imposes greater costs on existing shareholders who do not participate in the issue.

[12] Retail investors sometimes complain about lack of access to capital raisings. Indeed the 15% limit is in place to prevent this. The combination placement and complementary rights, Share Purchase Plan or Dividend Reinvestment Plan will give retail investors improved access. In May 2008 ASIC released a class order in an attempt to increase retail participation in fundraisings.

[13] B. Balachandran, R. Faff and M. Theobold (2008), "Rights offerings, takeup, renounceability, and underwriting status", Journal of Financial Economics, 89, 328 - 346

It is clear that management will face a tradeoff in selecting the discount. A low discount sends a positive signal and lowers the cost for non participating shareholders, however does carry a higher risk of failure.

Balachandran, Faff and Theobald examine a variety of alternative ways to undertake a rights issue and conclude:

> *"we find that the market's first preference, as shown by price reaction, is for non-renounceable / fully underwritten issues with a low price discount. The least preferred method is the non-renounceable / partially underwritten rights issue with a high price discount"*

We argue that these types of results are incompatible with the world view put forward by the AER concerning the apparent ease and cost free nature of rights issues.. In the next two sections we document the cost of rights and placements , and consider why firms would use placements as a preferred source of equity.

2.1.3 Rights issues: (indirect) costs and benefits

The AER states that rights issues involve no cost to shareholders as they can simply sell their rights or sell a portion of their existing holding[14]. However a rights issue does potentially cause costs for existing shareholders.

Before exploring these costs in detail it is necessary to consider the issue of renounceability. A rights issue is either renounceable or non renounceable. A renounceable issue means that existing shareholders receive the rights to acquire shares; they can either exercise these rights or sell them on the market to realise their value. This does involve taxes and transactions costs, to be discussed below. For a non renounceable offering shareholders do not receive any benefit from the discount unless they subscribe to the issue. ***Failure to subscribe means that they do not receive any benefit, and therefore will suffer a dilution of their value, in the same manner as under a placement.*** Consequently, a shareholder not wishing to participate still has to subscribe to the offering if they want to receive the benefit of any discount. They would subscribe and then sell a portion of their holding. This will generate transactions costs and tax costs. It is clear that a non-renounceable offer puts more pressure on investors to subscribe to an issue. For rights issues between 1995 and 2005, approximately 62% of rights issues were non-renounceable (34% by value)[15]. For this same sample, only 50% to 60% of investors participated in non – renounceable issues, implying a high level of dilution of existing shareholders and barriers to participation.

Costs of a rights issue

[14] The AER Draft Report does allow for direct costs of raising new equity, so this discussion is concerned with indirect costs

[15] Balachandran et al, cited Note 13

Eckbo, Masulis and Nori[16] document the following (indirect) costs entailed in a rights issue:

Tax effects: shareholders will suffer tax consequences in the event they do not wish to participate in the offering. The precise tax consequences will largely depend on whether a rights issue is renounceable or non renounceable. For a renounceable issue existing shareholders receive rights based on their pro-rata shareholding. These rights will be taxable as a capital gain if sold by the investor[17]. For a typical set of assumptions this CGT would equal about 1.5% of issue proceeds. Importantly, this tax cost increases with the size of the discount, providing another rationale for companies wanting to limit the discount. For a non-renounceable issue the shareholder will subscribe and then sell a portion of the holding to maintain their desired investment level. This will again trigger taxable consequences, which will not be at the discretion of the shareholder.

Liquidity impact and transactions costs: if the shareholder wants to sell the rights or a portion of his existing holding then there will be transactions costs incurred. This transaction cost includes brokerage but may also include costs of being forced to sell shares at a time when supply has been materially increased. This will affect price levels and bid offer spreads. In the United States, Kothare[18] finds that rights issues are accompanied by reduced liquidity and an increase in the stock's bid – offer spread. Hansen[19] argues that the disadvantage of a rights issue is that underwriters in a firm commitments issue are more efficient at placing shares with new investors, and are able to obtain higher than prices, than individual investors just selling their rights or excess shares on the exchange.

Risk of failure: the rights offer process can take four to five weeks. During this period the issuing firm's stock price could fall below the subscription price, either due to firm specific news or general market movements. While this can be addressed by increasing the discount, this will result in an increase in tax costs (noted above) and potentially negative market response, as documented in Balachandran et al.

Arbitrage activity and short selling: the existence of rights can be used to hedge short selling during the offer period. This can temporarily reduce prices, reducing the attractiveness of exercising the rights and increasing the risk of failure.

Anti dilution clauses to convertible security holders: if convertible or other securities have anti dilution clauses then they will gain improved positions, even though they are not ordinary shareholders.

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[16] Cited in footnote 8

[17] The tax treatment of rights was clarified in a statement by the Federal Government on 26 June 2007, which was implemented in legislation which received Royal Assent on 20 September 2008

[18] M. Kothare (1997), "The effect of equity issues on ownership structure and stock liquidity: A comparison of rights and public offers", Journal of Financial Economics, 43, 131 - 148

[19] R. Hansen, (1989), "The Demise of the Rights Issue", The Review of Financial Studies, 1989, Vol 1, No 3, pp. 289 - 309

These costs can be minimised if all existing shareholders subscribe to the rights offering. However, there is no guarantee that shareholders will do so. Firstly, subscribing to new shares will change portfolio allocations for shareholders and shareholders may choose to adjust their holdings as a consequence. However, the most important factor is the possibility that shareholders are capital constrained, and are therefore unable or unwilling to fund their full participation in the offering. As discussed previously, increasing the discount may encourage a greater participation rate in the issue but will also increase the costs on those not participating and does generate concerns about signalling the quality of the issuer to the market.

Response to the AER

The AER Draft (p 141) has argued that rights issues involve no costs because there is no wealth transfer. The AER Draft (page 141) asserted that shareholders not wishing to invest further can usually sell their rights or sell a portion of their existing holding. The above discussion demonstrates that, while it is true that shareholders can sell their rights or excess shares,, it is not without cost for those shareholders. The discussion has highlighted that unless there is an extremely high level of shareholder participation then a rights issue will incur indirect costs:

- For non renounceable issues failure to participate results in dilution of ownership in exactly the same way as it does for a placement. The results of Balachandran et al have shown that 34% (by value) and 62% (by number) of rights issues in Australia are non renounceable. Thus a material number of existing shareholders potentially have this cost imposed on them;
- For both renounceable and non renounceable issues non participation generates costs for those shareholders. Again, the Balachandran et al results show that, on average, 66% of existing shareholders participate in rights issues. Again, a material number of shareholders do not participate in rights issues and therefore would be subject to the costs discussed above;
- In the case of an issuing entity that is undervalued then even equity holders in a rights issue will suffer dilution should they decide to sell rights (this is discussed in further detail in Section 2.2).

This discussion has demonstrated that, not only are rights not the most common method of equity raising, when they are used they can result in material costs for shareholders and the information on renounceability and take-up indicate this is potentially material.

Deciding when to use a rights issue

For this reason, a key variable in deciding on the form of issuance is the expected level of subscription by existing shareholders (labelled as ‘take-up’). Levels of take-up can be interpreted as a guide to firm quality. The signalling argument implies that if management is confident about high levels of take-up then they would be more inclined to use a rights issue. However, if expectations of take-up are low then that increases the risk of adverse selection by new investors, increasing the need for a larger discount to

induce new investors to participate in the offering. ***Unless expected take-up levels are high then management are faced with a choice: increase the discount to encourage existing investors to commit, or pursue a placement where investment banks actively seek new investors.***

The importance of take-up is demonstrated by the Balachandran et al results. They found that for rights issues where the subscription by existing shareholders was low the negative announcement period returns were -3.22%; these negative returns are economically significant, equating to about 6.5% of proceeds received. Firms with high levels of take-up recorded less negative returns of -0.63%.

Unfortunately there are no well developed models to predict take-up. However one factor that does appear to be important is the level of concentration of shareholders and the presence of major shareholders. Cronqvist and Nilsson[20] examine Swedish issues over 1986 – 1999 and conclude that the use of rights is best explained by the desire of controlling family investors to maintain control over the issuing entities. In Australia, Balachrandran et al find that issuers with a higher proportion of shares held by the Top 20 shareholders tend to have higher levels of take-up. In our own sample of equity issuers (refer Appendix 2): Envestra, DUET, ConnectEast and Transurban each have significant shareholders who participated in the rights offer. The first three companies noted used rights as their main fund raising mechanism.

Clearly the presence of committed major shareholders reduces uncertainty about the level of take-up, however a rights issue also maintains the existing level of influence of these major shareholders. To the extent rights issues are motivated by control issues, this is not a valid argument to justify their use in the context of the AER's current considerations. The benefits of control by large shareholders are not a benefit that should be considered in evaluating the return to be earned by an efficient benchmark entity.

The size of the discount will also influence take-up. A large discount should increase the level of take-up. However it can also be argued that a large discount can be interpreted as a negative signal about the firm's prospects. A large discount also increases the costs for non participating shareholders. The design of a rights issue would therefore need to address this tradeoff between trying to minimise discount but also maximise the level of take-up of the offer.

It could also be argued that firms with low levels of information asymmetry, or where there is less uncertainty about value, may be more suitable for a rights issue. However Borlotti et al argue that these firms are also the ones most appropriate for the modern form of accelerated placements, where investors are given a very short time to decide. Furthermore we note that even though the underlying business may be stable the overall

[20] H. Cronqvist and M. Nilsson, (2005), "The choice between rights offerings and private equity placements", Journal of Financial Economics, 78, 375 - 407

credit rating of the benchmark entity is BBB+, which is a marginal investment grade category and therefore possibly having higher levels of uncertainty about valuation[21].

Regulatory considerations

As noted previously in Australia a placement cannot exceed 15% of a company's issued capital in any twelve month period. Thus for very large funding requirements a placement cannot be used for the whole requirement.

Table 7 demonstrated that most rights issues were undertaken by firms needing greater than 15% of capital. Only 9% of rights issued were used where the amount required was less than the 15% limit. In fact a number of firms seemingly avoided the rights process by seeking shareholder approval for a placement in excess of the 15% regulatory limit. The Balachandran et al results[22]show that the number of shares issued in rights issues was 50% of shares outstanding, on average. Furthermore, our own sample of recent equity raisings completed in Australia (refer Appendix 2) shows that the only time a rights issue is used is when the equity raising exceeds the 15% maximum regulatory limit.

It is difficult to prove that in these cases rights are being used solely because of the regulatory requirement or because the firm has selected the process most likely to maximise proceeds. Each of the rights issues is usually associated with a major strategic initiative, usually an acquisition or restructuring, and so it may be appropriate that existing shareholders be given the opportunity to participate. Indeed, in light of the previous discussion on take-up, it may be that existing shareholders are most likely to support an acquisition or major strategic initiative. ***However it is also clear that these results imply that, given the choice, companies will predominantly use a placement.***

In the case of a benchmark with characteristics similar to that of TransGrid (the "benchmark firm") it is highly unlikely that this 15% ceiling would ever need to be invoked. Based on the forecasts on the AER's Draft decision for TransGrid new equity, as a percentage of Equity Value, averages 6% per annum over the control period. This is well under the ceiling[23] and indicates it is unlikely that the benchmark firm would be required to undertake a rights issue.

2.1.4 Placements: (indirect) costs and benefits

We have noted that unless expected take-up is high then management have a choice: they can either use a rights issue with a high discount and underwriting, or they can pursue a placement. In this context a placement appears to offer a number of advantages:

[21] This distinction is common market terminology however formal definitions can be obtained in "Standard & Poor's ratings Definitions", Ratings Direct, December 1, 2008. See page 4 where it states "Obligations rated BB, B, CCC etc are regarded as having significant speculative characteristics"
[22] Cited Note 13
[23] This is calculated by dividing the estimates amount of new equity required by the equity portion of the RAB for each year. Data is from the AER Draft decision for Transgrid – PTRM. These calculations are discussed further in Section 3.

- Speed and certainty of execution: as noted previously, placements can be completed in a matter of days, providing certainty to issuing companies. Not only does this provide the guarantee of funds it also minimises market exposure over the underwriting period;

- More efficient method of price discovery: during the book build process potential investors provide information about their levels of demand for the companies equity, allowing the setting of a subscription price based on expected demand;

- Opportunity to access new investors: the process of a placement involves marketing and promotion activities targeted at potential investors. This creates the potential for new investors to be accessed and create new demand for a company's shares. By contrast, with a rights issue, existing shareholders sell their rights and/or shares on the open market so there is virtually no marketing or promotion process underway;

- Disclosure and other requirements are lower cost;

- Provides 'third party endorsement' benefits (known as certification benefits) from participating institutions. This would be additional to any similar benefits obtained from having respected underwriters.

The economic role of discounting / underpricing

The main indirect cost of a placement, or any equity raising targeted at investors other than existing shareholders, is the discount offered relative to the market price. Although sometimes used interchangeably the terms discount and underpricing have different meanings. Underpricing generally refers to the difference between the offer price and the closing price on the day of the offer, while discounts refer to the difference between the offer price and the closing price the day before the offer. Placements do result in a transfer of wealth from existing equity holders to new equity holders, roughly equivalent to the size of the discount. Refer to Appendix 3 for a simple example demonstrating the nature of this wealth transfer. Assuming the placement is comprised of all new investors then the discount measures in percentage terms the transfer of wealth to the new shareholders.

Estimates of the cost of discounts / underpricing will be described in Section 3.1.

In the context of a private placement discounting / underpricing can serve a significant role, in addition to acting as a signal about the firm's prospects. Underpricing should be considered an integral component of the cost of raising new equity. Altinkilic and Hansen[24] identify several explanations for the role of underpricing:

[24] O. Altinkilic and R. Hansen (2003), "Discounting and underpricing in seasoned equity offers", Journal of Financial Economics, 69, (2003) 285 - 323

- Value uncertainty: investors should receive more compensation in the form of underpricing as valuing a firm becomes more difficult;
- Placement cost: higher discounting is required to attract capital suppliers and compensate them for providing liquidity by helping to absorb the supply of new shares;
- Information acquisition: investors are rewarded for providing information on the likely demand for the firm's securities;
- Rent expropriation: banks are able to allocate underpriced securities to customers who are likely to repay in future reciprocal deals.

Each of these explanations shows that underpricing plays an important role in the process of actually attracting capital. Mola and Loughran[25] find a positive relationship between underpricing and underwriting spread, which implies underpricing does play a complementary role to the direct costs incurred in an issue. For example, Mola and Loughram show that the level of discount can also be related to firms with top rating analysts i.e. underpricing is part of the cost of marketing and promoting the issue.

There is extensive empirical research on the determinants of underpricing which generally shows relationships between discounts / underpricing and various characteristics of the issuer and the actual form of offer.

2.1.5 Implications for a benchmark firm

In light of the AER's assertions about the use of rights, it is appropriate to consider whether a rights issue may be appropriate for a benchmark firm with operating and financial policy characteristics similar to TransGrid ("the benchmark entity"). We conclude there is no prima facie reason why a benchmark entity would necessarily raise external equity using a rights issue. In fact the size of the equity required to be contributed from shareholders would suggest that a rights issue may be inappropriate. Reasons in support of this conclusion are:

- The level of take-up in a rights issue is likely to be low. The AER's draft decision for TransGrid includes projections of dividends to be paid and new equity which needs to be raised over the next five years[26]. These AER projections show that, over the next five years, TransGrid is required to raise $433 million in new external equity, while it is forecasting to pay $577 million in dividends. Investors are therefore looking at reinvesting approximately 75% of dividends over the forecast period. We would expect this scenario to put pressure on the ability of a pre-existing shareholder base to continue to contribute the new equity each year;

[25] S. Mola and T. Loughram, (2004), Discounting and Clustering in Seasoned Equity Offerings" Journal of Financial and Quantitative Analysis, Vol 39, No 1, March 2004, p 1 -23

[26] These estimates are included in the AER draft decision of 21 November, 2008. Table 2.20, page 196, shows the estimated equity requirement. Details are also included in the AER spreadsheet "AER Draft decision for Transgrid – PTRM (master) excluding capcons.xls" These forecasts are analysed in more detail in Section 3.1

- The benchmark entity is unlikely to have a concentrated shareholder base and there is no rationale to assume the presence of dominant shareholders. Again, this would suggest difficulty in attracting a high level of take-up by existing shareholders, an important condition for using a rights issue as a method of equity raising;
- The level of equity required each year is well under the 15% regulatory limit[27], so the benchmark entity in similar circumstances to TransGrid would have the choice of a placement or rights issue, or some combination thereof. We note the previous evidence provided that companies in this situation have predominantly chosen a placement;
- We could characterise the benchmark entity as having a low level of information asymmetry however as noted earlier this could contribute to a successful placement as much as a rights issue.

2.2 The CAPM and the true cost of raising equity

The second objection raised by the AER is that returns measured by the CAPM are sufficient to attract new equity funds at existing share prices. The AER Draft [p 141] states:

> *"Therefore the efficient benchmark firm already includes full compensation for all investor risk that requires compensation under the CAPM and underpricing allowance – an extra form of compensation for risk for new investors – is not required. The allowed WACC is already determined to be sufficient to induce new investment" [AER Draft page 141]*

The implications of the AER's view of the world are at odds with the reality of equity capital raisings. We conclude that a large benchmark efficient firm needing to raise new equity would expect to incur underpricing costs. The previous section has demonstrated the economic rationale as to why such costs are incurred, and demonstrated they are a cost of attracting new investors and increasing supply of shares.

In this section we specifically address the question as to how these costs relate to the CAPM, as described above by the AER. We conclude that underpricing is a cost over and above the required return estimated using the CAPM. We examine three arguments in support of this conclusion:

- The CAPM does not say anything about the pricing of new securities;
- Documented evidence on underpricing and market response to new issues. These would not be expected to be observed if the AER's assertion above was correct;

[27] This is calculated by dividing the projected new equity requirement for each year by the equity component of the Opening RAB value for each year.

- Theoretical acceptance of these market imperfections, and co-existence with the CAPM.

Each of these arguments applies equally validly to a regulated business as it does a normal listed company. This is discussed in further detail in Section 3.3. We now examine each of these in turn.

The CAPM does not say anything about the pricing of new securities

The CAPM does not say anything about the process or costs of issuing new securities. Copeland, Weston and Shastri[28] state the CAPM has the following assumptions:

- Investors are price takers and have homogenous expectations about asset returns
- There exists a risk free rate at which investors may borrows or lend unlimited amounts
- The quantities of assets are fixed
- All assets are marketable and perfectly divisible
- Asset markets are frictionless, and information is costless and simultaneously available to all investors
- There are no market imperfections such as taxes, regulations, or restrictions on short selling

From this list of assumptions it is clear that the CAPM does not contemplate the pricing of newly issued securities and the conditions under which they are issued. We have previously demonstrated that underpricing is a cost incurred by most issuers in response to concerns about liquidity, asymmetrical information, transactions costs and taxes. We have documented the issues in relation to the size of a discount on a rights issue (Section 2.1.2). In a world of 'homogenous beliefs' and where everyone has the same information concerns about the signalling effects of discounts would not arise.

Assertions about the cost of underpricing do not imply rejection of the CAPM, they just imply that it is incomplete description of pricing newly issued securities.

This issue is directly addressed in a recent review of equity fundraising alternatives. Draho[29] argues as follows:

[28] T. Copeland, J.F. Weston and K. Shastri, 2005, Financial Theory and Corporate Financial Policy, 4th Edition, Pearson Education, p 147

[29] J. Draho, (2008), "Re-equitising Corporate Balance Sheets: Choosing Among the Alternatives", Journal of Applied Corporate Finance, Volume 20, Number 3, Summer 2008, p58 - 67

"The conventional measure for the expected return is determined using the CAPM model, in which only a stock's systematic risk matters for the return…But this is only a starting point for the analysis… on top of and separate from these measurement problems, the cost of raising equity involves more than just investors required returns for bearing systematic risk. If that was all that mattered, most companies would be able to sell their shares at their current share price. Yet new shares are generally sold at significant discounts to the companies' pre-announcement prices. The result is a dilution in the value of existing shareholder claims, a cost that increases with the size of the stock offering"

Documented evidence on existence of underpricing and market reactions to equity issues

The logical conclusion of the "world view" implied by the AER is that all companies would simply raise equity using a non underwritten rights issue, issued at a zero discount. Furthermore the AER's view implies we would expect zero market responses to announcements of equity raisings as investors are fully compensated by the returns specified in the CAPM.

There is an extensive body of theory and empirical research which addresses the question of seasoned equity offerings. For example, Eckbo, Masulis and Nori[30] summarise over 280 empirical studies of public seasoned equity offerings for cash. Generally accepted empirical results about seasoned capital raisings include:

- Discounts / underpricing in equity issues. In Australia, Balachandran, Faff and Theobald document average discounts of 20% on rights issues. Importantly, they find that market reactions to rights offerings are sensitive to the size of the discount, with smaller discounts being associated with less negative market responses. This behaviour is at odds with a view that rights issues with a discount carry no indirect costs for existing investors. International evidence on discounts and underpricing on seasoned equity offerings is extensive, and will be considered in detail in Section 3.2.
- Generally negative announcement effects accompany equity raisings. In Australia, Balachandran, Faff and Theobald document negative market responses for rights issues of -1.74%. This implies that the market value of firms issuing equity falls by 1.74% in the two days around an announcement. This is equivalent to approximately 3.5% of the issue proceeds. US announcement returns appear to depend on the method of equity raising. Underwritten rights issues and firm commitments generate negative announcement returns, non underwritten rights issues have zero impact while private placements generate positive announcement returns;

[30] E. Eckbo, R. Masulis and O. Nori, (2007), "Security Offerings" in E. Eckbo, Handbook of Corporate Finance: Empirical Corporate Finance, Volume 1. North Holland

- a range of equity raising techniques. We have already demonstrated that uninsured rights issues are relatively uncommon. In the US uninsured rights offerings are virtually unheard of, and even underwritten rights issues are swamped by firm commitment and private placement raisings (as discussed previously). A range of techniques demonstrates a response to different issuing conditions, none of which would arise under the world implied by the CAPM assumptions.

To re-iterate, none of these empirical results would be observed if the CAPM was a complete model.

Theoretical acceptance of market imperfections and their co-existence with the CAPM

Theories to explain the actual practice of equity capital raisings are generally based on market imperfections arising from the presence of asymmetrical information and the use of signalling arguments. This was initiated with the pecking order model of Myers. This model was developed in recognition of the effect that asymmetrical information can have on equity issue strategies, and specifically contemplates that firms would rather forego profitable investment opportunities than issue undervalued equity. These theories, which allow for the existence of heterogeneous expectations, asymmetrical information and potential mis-valuation co-exist with the CAPM.

We note that the AER uses the pecking order model as the basis for determining whether any external equity is required[31] (page 109, cited in original CEG submission). The AER states this theory explains that equity raising choices are a result of efforts to minimise ***transactions costs***. This is incorrect. In fact Myers specifically excludes the potential for transactions costs to explain issuing behaviour. The only costs contemplated in the Myer model are those caused by the results of perceived under and overvaluation of firms resulting from asymmetrical information. These factors are also associated with underpricing, the same costs which the AER is suggesting be excluded from allowable costs.

The original Myers model is silent on the choice between alternative methods of raising equity. Eckbo and Nori[32] have applied the pecking order concept to evaluate the choice between alternative methods of raising external equity. This model highlights the important role of ***takeup by existing investors*** in the choice between methods of raising equity. These models also highlight that even if there are no indirect costs as described earlier the assertion that rights are cost free is dependent on an assumption that firms are always "correctly" valued. Consider a firm undertaking a rights issue but it is undervalued. An investor who sells their rights may get the correct price (assuming away

[31] AER Issues paper "Review of the weighted average cost of capital (WACC) parameters for electricity transmission and distribution", Augsut 2008, page 109

[32] B. Eckbo and O. Nori, (2005), "The equity flotation method pecking order", Working paper, Tuck School of Business at Dartmouth

the costs described above), but will still be diluted because the rights are undervalued relative to the true underlying value.

3. The cost of underpricing / discounting

3.1 Defining the cost

In the previous two sections we have addressed the general objections raised by the AER to the inclusion of indirect costs. In this section we will prepare an estimate of these underpricing costs, and consider their application to regulated industries.

The AER has argued that rights issues involve no costs because there is no wealth transfer. The discussion has highlighted that unless there is an extremely high level of shareholder participation then a rights issues will incur indirect costs:

- For non renounceable issues failure to participate results in dilution of ownership in exactly the same way as it does for a placement;
- For both renounceable and non renounceable issues non participation generates costs for those shareholders;
- In the case of an issuing entity that is undervalued then even equity holders in a rights issue will suffer dilution should they decide to sell rights.

The issue of shares at a discount to new investors also involves a cost. Appendix 3 provides a simple example to demonstrating that placements (or any raising targeted at new investors) result in a transfer of wealth from existing equity holders to new equity holders, roughly equivalent to the size of the discount. This is therefore a real cost incurred by existing equity holders in raising external equity.

In spite of this cost, companies predominantly use placements. This was documented earlier as the rights issue paradox. Assuming value maximising behaviour by management then **the only conclusion that can be drawn from this is that when a placement is used the net proceeds of a placement (subscription price net of direct and indirect costs) must exceed the expected net proceeds from a rights issue.** We also demonstrated that the major uses of rights issues are when they are either required to meet the maximum regulatory limit of 15%, driven by control considerations or where very high takeup is assured. In the first instance it is possible to argue that the use of rights is not based solely on minimising flotation costs.

We therefore propose to use the indirect costs of placements as our estimate of the indirect costs of raising equity. We conclude this for the following reasons:

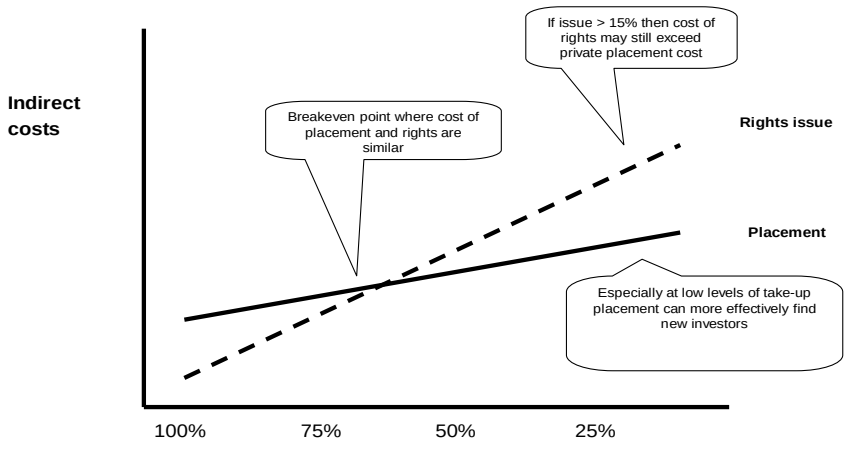
- Placements are the major form of seasoned equity offering and therefore their cost can be taken as typical. Companies using a placement, or any non rights method, would be presumed to have made the decision with a view to maximising the proceeds of the sale (including all flotation costs) and therefore the cost of the placement would be lower than the cost of an equivalent rights issue;

- We can also assume that most issuers will be attempting to minimise this cost. One of the aims of the bookbuild process is to establish demand levels and maximise the price (or minimise the discount). The resulting discount can therefore be taken as market determined;

- The discount allows us to measure the wealth transfer cost to existing shareholders. Using the estimates of discounts assumes that all investors in a placement are new investors;

- Regardless of whether a rights issue or placement is selected we argue that the cost of a placement provides the best estimate of cost. In the situations currently under consideration by the AER the amount of equity to be raised each year is less than the 15% regulatory limit. The issuing entity will therefore have the choice of a rights or placement. We have already demonstrated that the argument for a rights issue by a benchmark firm with characteristics similar to TransGrid is not overwhelming. We also note the evidence provided shows that, in these situations, companies have predominantly chosen placements. Furthermore we also note the common practice of companies using a mix of placements and some form of "retail friendly" equity. In these cases the cost of either method would be similar. This can be illustrated in Figure 1, which shows a stylised representation of cost curves for rights issues and placements as a function of expected takeup ***by existing investors.***

FIGURE 1
Relationship between expected shareholder take-up and indirect costs



- The discount on a rights issue is not an appropriate estimate. We have argued that the main indirect costs of a rights issue are the costs imposed on non participating shareholders, and the costs of finding new investors. To the extent shareholders do participate then the indirect costs are lower. To use the discount on rights offerings we would need to multiply the discount by [1 – Take-up %] to estimate the cost. Using placement costs, when issuers have implicitly already made this tradeoff of the relative costs, provides a more reliable estimate.

3.2 Review of estimates of underpricing

The CEG report of 11th November "Debt and equity raising costs: A report for the APIA, ENA and Grid Australia" ("CEG Report") includes estimates of underpricing costs using US empirical research (page 25). Although not noted as such, these costs refer to the underpricing of firm commitment raisings, or placements. These studies show an average underpricing of 4%. A review of other papers confirms the existence of underpricing and discounting at similar orders of magnitude:

- Mola and Loughran[33] find discounts averaged 3% for the period 1986 – 1999. Discounts increased during the period and at the end of the sample period the discount was 3.7%;

- Corwin[34] finds average discounts of 2.2% for the period 1980 – 1998 but towards the end of the period discounts were averaging 3%.

Borlotti, Megginson and Smart[35] examine underpricing on a global basis. Table 11 summarises these results. It suggests that discount levels in the United States are lower than other countries, and therefore the above studies are probably provide low estimates for Australian issuers.

[33] Cited Note 25
[34] S. Corwin, (2003), "The Determinants of Underpricing for Seasoned Equity Offers", Journal of Finance, Vol 63, No 5, October 2003, pp 2249 - 2279
[35] Cited Note 11

Table 11
Underpricing on global transactions for a range of seasoned equity offerings
1991 - 2004

Region	% Underpricing
United States	1.76% - 2.54%
European	2.45% - 7.32%
Rest of World	4.13% - 6.51%
Source: *Borlotti, Megginson and Smart, Note 7*	

The CEG Report[36] (page 23) also referred to the ACG sample of seasoned equity offerings and noted an average underpricing of 7.6%, with a median of 6.7%. This sample included a mixture of placements and rights issues. It is important to note here that discounts on rights issues average 20%, as reported by Balachandran et al[37], and generally exceed those on placements.

We have already argued that the discount on a placement is a better estimate of the indirect cost of raising seasoned equity. We established previously that the discount on a placement is a genuine cost of raising equity. The indirect cost of a rights issue is harder to measure, and is not represented by the discount as existing shareholders subscribe to the offer.

Table 12 presents summary results for the sample of recent equity issues in Australia, and detailed in Appendix 2. These are largely issues completed over the last six months of calendar year 2008. It shows significant differences in the discounts between rights issues, placements and mixed transactions. Key conclusions are:

- Discounts on pure placements are generally lower than those on rights issues;
- Where a rights issue was the major source of equity the amount raised always exceeded the regulatory 15% limit;
- The average discount on placements is 9.8%. Discounts ranged from a maximum discount of 23% to a premium of 7%.

Generally the discount levels exceed those of the international studies, presumably reflecting current market conditions and possibly lower liquidity in the Australian market.

[36] T. Hird and D. Young, "Debt and Equity raising costs: A report for the APIA, ENA and Grid Australia", CEG, 11 November 2008
[37] Cited Note 10

The overall conclusion of the material cited above is that a discount in the range of 5% - 10% is appropriate, depending on assumptions to be made about market conditions, issuer circumstances and level of participation by existing shareholders. As noted previously using the discount to estimate cost assumes that all investors in the placement are new. We are not aware of any information concerning the level of participation by existing investors in placements.

Table 12
Comparison of discounts by flotation method for a selected sample of Australian Seasoned Equity Offerings

Flotation method	Size of issue as % of market capitalisation	Discount on placements	Discount on rights issues
Placements / predominantly placements	6.5%	9.8%	
Mixed rights issue / placements	12.8%	10.2%	8.65%
Rights issues / predominantly rights issues	29.4%	14.3%	16.9%
Source: *Issue details listed in Appendix 2*			

Other indirect costs of equity raising

The discussion above has focussed on underpricing. There are other indirect costs which should arguably be included. The so-called “green shoe” option is sometimes given to underwriters as part of an underwriting agreement. These basically give the underwriter the option to subscribe to additional shares at the issue price, and can be regarded as a call option.

3.3 Indirect costs and regulated industries

Regulated industries arguably suffer less than a typical industrial company from the impact of indirect costs. However the limited results available suggest that they still are impacted by these anomalies to the frictionless and idealised equity market pictured by the AER, in line with the “rights issue paradox” observed for unregulated industries. Specifically:

- In the United States, utilities use firm commitments almost exclusively. Rights issues comprise less than 1% of offerings. These strategies have held for over 30

years. We should conclude therefore that for this sector rights offerings are considered to be more costly than placements;

- The US evidence also shows that issues by utilities are subject to underpricing. Mola and Loughram[38] show that a utility issuer will have underpricing approximately 0.41% less than industrial issuers. The sample average underpricing in this study was 3% to 3.7%, So the impact of being a utility only reduced the cost by less than 15%;

- utilities still suffer from negative announcement returns on seasoned equity raisings, and select seemingly more expensive methods of equity issuance. Asquith and Mullins[39] report that public utilities suffer price declines equal to 12.3% of the issue proceeds. This is less than industrial companies but occurs in spite of the lower risk and greater transparency around utilities.

Although a number of these examples are US based we consider they appropriately demonstrate examples of financial strategy and capital market behaviours as they apply to regulated businesses. Unless we argue that regulated utilities are risk free, the inclusion of indirect costs is as legitimate for utility businesses as it is for any publicly listed company.

The above analysis provides strong evidence that the simple use of discounted rights issues, as advocated by the AER, does not reflect the practical reality for publicly listed companies needing to raise new equity. When placements are used the cost of the placement must be less than that of an equivalent rights issue, otherwise placements would not be used in preference to rights so commonly.

4 Alternative methods of raising equity?

The discussion in the paper has focussed on the question of placements and rights issues. In this section we briefly review the role of a Dividend reinvestment Plan, then review the costs of other sources of equity and how they impact the indirect cost of raising external equity.

4.1 Dividend Reinvestment Plans

In practice the issuing entity would also utilise a Dividend Reinvestment Plan and possibly a Share Purchase Plan. These are often regarded as low cost equity, and in the case of a benchmark entity with similar characteristics to TransGrid a Dividend Reinvestment Plan ("DRP") would be expected to operate. These are not cost free however.

[38] Cited Note 25
[39] P. Asquith and D. Mullins, (1986), "Equity issues and offering dilution", Journal of Financial Economics 15, pp 61 - 89

In estimating the cost of a DRP, it is important to observe that a DRP is effectively a non-renounceable rights issue. Shareholders who participate receive shares at a discount, generally in the order of 2.5% - 5%. However shareholders who do not wish to participate either incur costs in subscribing and then selling shares, or are simply diluted; in both cases incurring costs. Voluntary participation in DRP's is around 30%, as noted by the Allen Consulting Group[40]. Appendix 4 shows the status of Dividend Reinvestment Plans for the sample of equity issuers referred to earlier. The average level of voluntary reinvestment is 33%. This is equivalent to the concept of take-up discussed in the context of a rights issue (Section 3.1). This level of participation implies two thirds of shareholders do not participate and are being diluted, and therefore suffering the wealth transfer effect due to the issue discount. This should be considered a true indirect cost of raising new equity.

It is possible for companies to improve participation by having the DRP underwritten. The ACG report argues that Dividend Reinvestment Plans will be underwritten at zero cost by investment banks. This has been the case over recent years however anecdotal evidence suggests that underwriting fees of around 2.5% are being charged. Furthermore, it should be observed that the underwritten portion of the DRP is effectively the same as a placement, as the newly issued shares are, by definition, being subscribed to by new investors. In this case therefore it is appropriate to treat the discount as an indirect cost of raising new equity.

For the purposes of estimating the costs of seasoned equity we would assume a 30% voluntary reinvestment rate, and a discount of 3.5%. This in the mid of the 2.5% to 5% range and can be justified on the basis of the scale of funding required relative to the dividends. This would then imply an indirect cost of 3.5% for funds reinvested under the DRP.

Over the contract period dividends are forecast at $577 million, while new equity is forecast at $433 million. Equity requirements could be met with a 75% participation rate in the DRP. This is likely to be a high rate of voluntary participation, so we should assume a 30% voluntary participation rate. The balance would therefore need to be funded by a rights or placement. I am assuming that an underwritten DRP is similar in impact and cost to one of these alternatives.

4.2 Placements v Rights

The new equity required each year averages less than 5% of the existing equity capital base, well under the 15% regulatory requirement, so the benchmark entity will have a choice of rights and placements. Whether the new equity is raised by placement or rights issue, the indirect cost of the offer discount or underpricing will be similar. As noted earlier there is strong evidence to suggest that for fund raisings which are less than the 15% limit firms will commonly use placements. Even if a rights issue is used our previous arguments would suggest that the true indirect cost is best estimated by the cost

[40] The Allen Consulting Group, "Debt and Equity Raising Transaction Costs: Final Report", December 2004, page 63

of the placement. The previous analysis suggested placement discounts of between 5% and 10%, depending on market conditions and issuers circumstances.

4.3 Cost of retained earnings and dividend policy assumptions

The CEG report[41] (page 32 – 35) has argued that retained earnings have an indirect cost as well. They argue that there is flexibility concerning dividend policy. Assume a firm has a 'normal' or optimal dividend policy. It can move away from this policy to fund growth, rather than go to the external equity markets. However once it reaches a 'threshold' minimum level of dividend then it will find it cost effective to access the external equity markets. The reduction in dividend payout between the 'optimal' and the 'threshold' is basically just increasing retained earnings. CEG argue that this increased use of retained earnings has a cost triggered by the reduction in dividends. This argument is based on applying the pecking order model of capital structure.

In assessing this concept the following issues may be worth noting:

- The actual pecking order model does not suggest using new external equity once retained earnings have been fully utilised. It actually suggests that an entity needing external funds would first prefer to issue debt and only when this is used would it access new external equity. Presumably CEG have not included the debt component because of the restriction of maintaining a 60% Target debt structure. However it is not clear that this is the case. However if the pecking order model is being applied then we could argue that the cost of accessing new debt should be factored in prior to assuming new equity. This highlights a problem of using two models of capital structure that can generate conflicting conclusions about financial strategy;

- The CEG proposal also appears to assume that the cost of dividend reduction is predictable and mechanical. However the cost of a reduction in dividends will be driven largely by signalling impacts and agency cost driven concerns about the use of the retained earnings. A reduction in dividends caused by lower operating performance or unwarranted expansion will generate a negative market response. However it is not clear that would be an automatic response in the current situation of a benchmark entity with characteristics similar to TransGrid. The investment of proceeds in capacity expansion may mitigate adverse market response;

- The pecking order model also implies setting a dividend policy setting that avoids the need to raise external funds, and the maintenance of financial slack. Given the well established need for the upcoming capital expenditure we could argue that an entity would have built up reserves in anticipation. This does not fit within the benchmark framework.

[41] Cited Note 36

We recommend an alternative approach to setting dividend policy

As noted previously in Section 1.2, an important component of value for equity holders is the receipt of imputation credits. Under the benchmark framework the only way to distribute these imputation credits is via franked dividends. We would therefore recommend that in determining external funding requirements it is assumed that dividends are sufficient to fully distribute imputation credits as they are generated. We have established that this is consistent with the AER valuation principles and would fall within acceptable market parameters. We would further assume that this dividend policy is maintained, so that any variation in funding is met by a mixture of new dent and equity (via a SEO). This approach is consistent with the maintenance of the fixed target capital structure policy.

By determining an 'optimal' dividend policy and then maintaining that during the contract period is an objective method and ensures consistency with the valuation principles and gives clear guidance about dividend policy as well as external funding requirements.

4.4 Recommendation on calculating the indirect cost of new external equity

Based on the above analysis we would recommend the following approach be adopted to estimating the indirect costs of new external equity:

- The cash flow forecasts to be used for external funding should be the same cash flow forecast used to demonstrate that equity investors in the benchmark firm receive their required return. This means the current cash flow forecast should be adjusted to allow for repayment of debt;

- The dividend policy used in the forecast should be set so as to ensure imputation credits are distributed on a timely basis each year. Again, this will ensure consistency with the valuation parameters being used;

- A 3.5% cost factor should be applied to external equity raised via the DRP. This would apply to the 30% of dividends that are reinvested, and would represent the cost of operating the DRP.

- A cost factor is applied to the balance of the external equity requirement (i.e. total new equity required less proceeds from DRP). In Section 3.2 we concluded this cost was in the range of 5% to 10%, depending on market conditions, issuer conditions and level of participation by existing shareholders. This indirect cost will apply regardless of whether an assumption is made about the equity being raised via a placement or rights issue.

5. Indirect costs of raising debt

Legitimacy of indirect debt costs

The AER Draft also rejected the recognition of debt underpricing costs as a legitimate cost of raising new debt. They state (page 137-8):

> *"It is implicit in the use of benchmark debt that the firm can issue public corporate debt in the market at a BBB rating and at the average yield to maturity associated with with BBB+ bonds. If firms effectively issue at a higher yield than BBB+, for example due to underpricing the debt, the firms are effectively issuing higher yielding lower grade debt. It is therefore inconsistent with the assumed BBB+ benchmark"*
>
> *"the AER considers that the indirect debt raising costs do not reflect the efficient costs that a prudent operator would require."*

This appears to assume that underpricing, if it exists, is due to poor issuing strategy by the borrower. However if underpricing is proven to exist it is difficult to attribute this to inefficient or ineffective issuing practices. We would conclude that underpricing is a normal part of the new issue market. If a significant number of BBB+ issuers have to issue at a discount then that is a cost of being a BBB+ issuer.

Cai, Helwege and Warga[42] document the presence of underpricing in the US public market. Non investment grade issuers have average underpricing of 14.9 b.p, while investment grade issuers do not, on average, exhibit underpricing. They conclude that underpricing is attributable to information problems, as experienced by for example new issuers and private company issuers. The presence of systematic relationships between underpricing and certain issuer characteristics suggests that the presence of underpricing is a requirement of the market rather than issuer i.e. pricing is not just a simple function of credit rating.

Livingstone and Zhou[43] examine differences in yields between the public and Rule 144a markets. They also find systematic relationships between yields and issuer characteristics which they attribute to liquidity, information uncertainty and the weaker protections for Rule 144a investors. They find issuer frequency, issue size, public v private status all help explain yields on bonds. Importantly they also find that "first time issuers" pay a premium over comparable Treasury rates of 30 b.p. per annum.

There is no systematic analysis of Australian bond trading data, however interviews with a number of market practitioners have supported the proposition that discounts on

[42] N. Cai, J. Helwege and A. Warga (2008) "Underpricing in the Corporate Bond market" Review of Financial Studies, forthcoming

[43] M. Livingstone and L. Zhou, (2002), " The impact of rule 144a debt offerings upon yields and underwriter fees", Financial Management, Vol 31, Iss 4, pp 5 - 28

placements of debt in Australia would be required for large scale issuers in the BBB+ category. Main reasons cited by practitioners are as follows:

- The Australian market is a relatively illiquid market, especially when compared to the United States.;

- The market in Australia is essentially an "over the counter market" which means that prices on screens and rate sheets are only indicative of trading levels and do not always represent actual trades.

- Given the thinness of the secondary market a new issuer is going to pay a premium over secondary trading levels in order to attract large scale purchases of newly issued bonds

- This pressure on new issue pricing was a function of credit rating, presumably reflecting liquidity concerns as well as higher uncertainty about lower rated issuers.

We would conclude that the level of secondary market liquidity in Australia would be less than that in the United States, and therefore any underpricing estimates from US data would provide a lower bound on underpricing costs in the Australian market. The CEG Report included estimates of the indirect cost of debt financing, based on work by Cai, Helwege and Warga. Although the average underpricing for investment grade issuers is zero, BB issuers incurred additional underpricing of 3.1 bp,. This converts to an annualised equivalent of 1bp. [44]. First time issuers to the market had underpricing of around 6 b.p. per annum and 12 b.p per annum, according to Cai, et al. Unfortunately neither study separates out foreign issuers to test if they pay a premium. Anecdotally we would consider foreign issuers would pay a premium; the "first time issuers" premium of 6 bp per annum to 12 b.p. per annum may be a useful estimate of this premium.

Relevance of US Public Bond market

The AER report challenged the use of US based data on underpricing. We argued above that the US data would provide a lower bound estimate on the costs of underpricing, given the more liquid nature of the US market. Another reason for using the US data is that it is likely that Australian issuers would access the US market as a source of funds. For a benchmark entity with characteristics similar to those of TransGrid it would be unwise to place reliance on only one market; a mix of local bond market debt, bank debt and offshore capital markets would be prudent for a new debt funding requirement in the order of $5 billion. Of course, in the medium term, access to the bond markets for most issuers is restricted[45].

In this scenario however the United States data would be directly relevant.

[44] The results in Cai et al are holding period returns and therefore need to be converted to annual yield equivalents.
[45] Refer to the Deloitte report, "Australian Energy Regulator, Refinancing, Debt Markets and Liquidity" 12 November 2008

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Conclusion on the cost of debt underpricing

The level of underpricing on debt is much lower than new equity. There is also less data available, especially in Australia. However the economic rationale for the presence of underpricing is strong. It is therefore recommended that some recognition of this be included in the overall financing costs. The CEG report cited previously has suggested a conservative estimate of 3 bppa. This appears reasonable.

APPENDICES

Appendix 1: Summary Of Terminology For Seasoned Equity Offerings

Description of terms in Table 6: ASX Capital Raising

Nature of issue	Description
Rights issue	All shareholders are given the right to buy new shares in the same proportion as their existing holdings. A renounceable offer allows them to sell the right on the market, a non renounceable offer requires them to subscribe to the offering. The process usually takes about five weeks, and can be underwritten by brokers for a fee
Placement	A small number of large investors are given the opportunity to purchase newly issued shares. Process is operated by an investment bank, and can be effected in a day or overnight. These investors need not be existing shareholders
Share Purchase Plan	Existing shareholders are given the right to purchase newly issued shares up to a absolute dollar limit, usually in the order of $5000 or $10000
Dividend reinvestment Plan	Existing shareholders are given the opportunity to purchase shares using their six monthly dividend. The shares are usually newly issued although the company can purchase existing shares on market. The shares are usually issued at a discount of up to 5%. The issue can be underwritten by a bank

Description of US terminology

Nature of issue	Definition
Firm commitment	An underwriter contractually commits to purchase an entire security issue at a fixed price discount from the public offering price. All shares are sold to the public at the same price and the underwriter generally has the power to allocate the issue if there is excess demand. The process may involve book building or a fixed price placing
Private Placement	An issuer privately negotiates a sale of stock to qualified investors. Public marketing is limited

Appendix 2: Selected recent capital raisings in Australia

This appendix presents a sample of recent issues, grouped into (i) placements/ predominantly placements where the significant majority of funds are raised via placements, (ii) mixed: placements / rights, where the proportions are broadly equivalent and (iii) predominantly rights, where the majority of funds were raised via a rights issue, Share Purchase Plan or Dividend Reinvestment Plan. The column labelled 'Rights amount" also includes equity raised using Share Purchase Plans and Dividend Reinvestment Plans announced in conjunction with the placement. In some cases these are announced after the placement has been completed. (Refer Appendix 1 for definitions of terms)

Source: data on issues has been collected from company announcements

SELECTED RECENT CAPITAL RAISINGS IN AUSTRALIA

Company	Date	Amount Raised	% of mkt cap	Placement amount	Discount	Rights amount*	Discount	Comments
Placements / predominantly placements								
Westpac	9/12/08	2500m	5.3%	100%	10.5%			
CBA	7/12/08	2000m	4.9%	100%	10.9%			
National Australia Bank	10/11/08	3250m	8.5%	92.3%	9.7%	7.7%	0%	
Stockland	8/10/08	300m	3.5%	100%	7%	SPP Withdrawn		SPP issue
QBE Insurance	27/11/08	2100m	10.3%	95%	10.9%	5%	TBD	
Average			***6.5%***		***9.8%***			

Appendix 2: Selected recent capital raisings in Australia

Company	Date	Amount Raised	% of mkt cap	Placement amount	Discount	Rights amount*	Discount	Comments
Mixed placements / rights								
Transurban	19/06/08	900m	15.1%	73%	-7.2% (premium)	37%	2.5%	DRP and SPP Dividends reduced Large shareholder participates
Bendigo Adelaide Bank	23/12/08	175m	5.5%	54%	14.8%	44%	14.8%	SPP
Bluescope Steel	11/12/08	550m	17.7%	54.5%	23.1%	45.5%	TBD	
Average			***12.8%***		***10.2%***		***8.65%***	
Rights / predominantly rights								
CSR	17/11/08	350m	22.4%	35.7%	22%	64.3%	22%	Only 19% of retail shareholders subscribed to offer
DUET	1/6/07	330m	21.4%	32.1%	2.5%	67.9%	2.5%	

Appendix 2: Selected recent capital raisings in Australia

Company	**Date**	**Amount Raised**	**% of mkt cap**	**Placement amount**	**Discount**	**Rights amount***	**Discount**	**Comments**
Connecteast	19/12/08	450m	39.9%	23%	18.5%	77%	18.5%	CP2 major shareholder participated and underwrote large amount; Dividends also reduced
Envestra	22/12/08	111m	39.9%			100%	0%, Although 5% based on previous 5 days	Distributions reduced; Two major shareholders participating
Incitec Pivot	21/11/08	1170m	23.2%			100%	36.6%	
Average			***29.4%***		***14.3%***		***16.9%***	

Appendix 3: Example demonstrating wealth transfer effects of a placement

Assume a firm has 100 shares outstanding at a current price of $10 per share. It then decides to raise an additional $160 using a placement to new investors, by selling 20 shares at 48 per share:

Existing shares: 100 @ $10 per share — Equity Market value of $1000

New issue: 20 shares at $8 per share — Funds Raised of $160

New shares outstanding: 120 — New Equity capitalisation of $1160

New share price is $9.67 per share

Following the transaction we can then examine the value of holdings by the old shareholders and the new shareholders:

Old shareholders now have 100 shares valued at $9.67 Value now: $966.67

New shareholders now have 20 shares valued at $9.67 Value now: $193.33

The old shareholders had shares worth $1000 which are now worth $966.67. The new shareholders contributed $160, which is now worth $193.33. Therefore the wealth ytransfer to new shareholders has been:

Old shareholders have lost: $33.34

New shareholders have gained: $33.34

The loss of value for old shareholders is 33.34/160 = 20.84%. This is the amount of wealth to new shareholders expressed as a percentage of the issue proceeds. This is close to the issue discount of 20%.

Appendix 4: Review of Selected Dividend Reinvestment Plans

Company	Amount Raised (LTM)	Discount	% reinvested by existing shareholders	Underwritten	Underwriter takeup	Underwriting fees
Westpac	704m 1344m		27.3% 35%	No Yes, effective Dec '08	 65%	
CBA	1207m		54.4%	No		
National Australia Bank	1668m	3%	54.8%	Yes, from 11 / 08		
Bendigo Adelaide Bank	36.3m [SPP = 89.6]	2.5%	28.6%	No	N/A	N/A
Transurban	239m	2.5%	53.4%	Yes, Up to 75%	21.6%%	
Envestra	18.8m	2.5%	47% Incl APA & CKI (=35.6%) i.e. 17.7% of remainder			

Appendix 4: Review of selected Dividend Reinvestment Plans

Company	Amount Raised (LTM)	Discount	% reinvested by existing shareholders	Underwritten	Underwriter takeup	Underwriting fees
Connecteast	107m	5%	44%	Yes	22.6%	2.5% of u/w amount
Stockland	225.8m	1.5%	34.7%	Yes, From 12 / 08	Up to 50%	N/A
QBE Insurance	31m		5.4%			
Bluescope Steel	104.9	??	42%	Final only	47.5%	??
Incitec Pivot		Introduced 11/08				
CSR	57.5m	2.5%	N/A	Yes But withdrawn following equity issue	N/A	N/A
Average			*33.8%*			

ATTACHMENTS

Attachment 1: Biographical details for Tony Carlton

Tony Carlton is a Visiting Fellow at the Applied Finance Centre, Macquarie University in Sydney. He joined the Centre in January 2004 and lectures in Corporate Finance and Project Analysis and Evaluation in the Master of Applied Finance program at the centre. He is currently undertaking a Phd, investigating corporate financing and restructuring strategies.

Prior to joining the Applied Finance Centre Tony had pursued a successful career in the corporate sector, and was a senior finance executive at CSR Limited, a leading Australian industrial company. Senior positions held included Executive General Manager, Strategy and Finance (2002 – 2003); General Manager, Corporate Finance (1996 – 2002); General Manager, Finance and Corporate Relations (1994 – 1996) and Treasurer (1989 – 1993).

He was one of the senior executive team responsible for completing the demerger of Rinker Limited from CSR, one of the most successful transactions of its type in Australia. This involved determining and implementing financial strategies, managing equity market strategies and negotiating debt financing arrangements. He was also responsible for managing the portfolio restructuring of CSR, managing a number of major acquisition and divestment transactions in Australia and the United States. He has had extensive experience in capital markets, being responsible for developing overall financial strategy and executing major financing transactions in Australia, Europe, the United States and Asia.

From January 2004 to December 2007 he was Subject Task Force Chairman for "Corporate Financial Management", part of FINSIA's Master of Applied Finance. He has presented papers at Australian Society of CPA's, Australian Society of Corporate Treasurers and APRA conferences on corporate financing strategies, managing bank relationships, risk and capital management and managing capital expenditure.

Tony received a B. Com (Hons 1) in 1976 and a Master of Finance (Honours) in 1983, both from University of New South Wales.