

The **Allen Consulting** Group

Debt and Equity Raising Transaction Costs

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Executive summary

Background

The Australian Competition and Consumer Commission (ACCC) has engaged The Allen Consulting Group (ACG) to undertake a review of issues associated with allowances for the transactions costs incurred in raising debt and equity finance for regulated utilities.

With respect to debt raising costs, the ACCC made allowances of between 10.5 and 12.5 basis points per annum during decisions made with respect to gas and electricity transmission companies in 2002 and 2003. During the same period, the ACCC's estimate of equity raising costs was 0.217 percent per year. However, when making these determinations, the ACCC foreshadowed undertaking further research in this area. For example, in the South Australian Transmission Network Revenue Cap decision, the ACCC stated in relation to equity raising costs that:¹

As with debt raising costs, the Commission intends to undertake further research on this issue for future regulatory decisions.

The present study undertakes further research into these issues, and accesses new data sources.

Methodology and approach

The ACCC's initial allowance of 10.5–12.5 basis points per annum for debt raising costs was based on its own research, interviews with banking executives and letters from bankers submitted to it by regulated utilities in support of their claims. The ACCC's analysis of equity raising costs was based on a review of five floats and equity raisings by infrastructure companies.

In addressing the ACCC's brief, ACG applied the following approaches and methodologies:

- Analysis from first principles of the necessity for benchmarking of costs within the CPI-X incentive regulation framework;
- A review of recent international empirical research assessing debt and equity raising costs;
- A review of regulatory practice in Australia and internationally;
- Analysis of data gathered from company prospectuses and databases such as Bloomberg and *Basis Point*; and
- Interviews with market participants, including bankers, investment bankers, market analysts and stockbrokers.

¹ ACCC, (11 December, 2002), *Decision: South Australian Transmission Network Revenue Cap 2003–2007/08*, p.28.

Main findings

Benchmarking and the notional regulated entity

This study begins by outlining the central importance of the notional regulated entity and capital structure under the benchmark approach to financing arrangements that has been adopted in Australia. In contrast to the standard approach in the US of treating embedded debt costs as a passthrough, the approach of Australian regulators has been to adopt benchmark assumptions about the financing structure of regulated entities when deriving regulated prices (most notably, when estimating the weighted average cost of capital associated with the regulated activities).

The objective for the financing structure benchmark is often described as the financing arrangements into which an efficiently financed entity would enter. However, as both the theoretical and measurement difficulties preclude the derivation of the ‘efficient’ financing arrangements, the benchmarks adopted in practice typically reflect observations of standard industry practice.

A key objective of setting regulated prices based upon benchmarks for financing structure — rather than based upon actual financing arrangements and costs — is to provide the businesses with an incentive to adopt efficient financing arrangements. In particular, the businesses retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and customers are protected if regulated entities are inefficient in their financing decisions. A secondary benefit of using a benchmark for financing structure is that the regulatory process is made simpler, and in particular to abstract from some of the complex financing arrangements that are now commonplace with utilities (that is, the ‘world class financial engineering’ that has been mentioned in the financial press).

In recent years, there has been an increasing recognition from Australian regulators that, as well as requiring a return on the debt and equity finance associated with a regulated activity, there is also a cost to raising that finance in the first place — a transaction cost. As will be discussed further below, these transaction costs include such matters as fees for investment bankers writing information memorandums for bond issues, fees for lawyers preparing documentation, fees for obtaining a credit rating for a particular issue, and like matters.

Given a model that uses benchmarks to derive the financing arrangements (including the required returns on equity and debt), the principle of consistency suggests that any allowance for these transaction costs should be based upon a benchmark allowance rather than the actual costs that may be incurred by the businesses. Indeed, the use of the relevant entity’s actual finance-related transactions costs poses a number of obvious problems.

- First, the actual levels of debt held by the relevant entities generally would not be consistent with the notional capital structure. In particular, as the market values of regulated entities typically exceed their regulatory values, the actual levels of debt and equity would generally exceed the total level of finance in the notional capital structure (the total level of finance is the regulatory asset value). Accordingly, the use of the total transaction costs incurred by the firm would be inappropriate.

- Secondly, for many businesses, it may be difficult to identify the levels of debt and equity that are associated with the regulatory business as opposed to other activities that the businesses may undertake. For such businesses, the use of actual transaction costs would be impracticable.
- Thirdly, for some sources of finance, there is a trade-off between the required return (or margin) on that finance, and the transaction costs incurred. Accordingly, it may be inappropriate even to scale down the costs incurred by the regulated entity to derive an allowance for transaction costs.

Australian and international regulatory practice

It would appear to be reasonably standard practice in the US for regulators to permit actual debt transaction costs to be passed through along with actual debt costs.² On the question of equity issuance costs, it would appear that US regulators have often disallowed past float costs if the market value of shares exceeds book value on the grounds that investors have been rewarded with returns exceeding the cost of capital. As stated by Goodman:

Past costs of floatation are allowed only if it is clearly shown that past rates were insufficient to permit their recovery; otherwise floatation costs are allowed only when the company anticipates issuing stock in the test year.³

However, as with all examples drawn from the US, it should be borne in mind that there are many different regulators in the US, and that generalisations are difficult. With respect to SEOs, a number of US regulators have requested proof that such costs are actually to be incurred. It should be noted, however, that US regulators have a long history of passing through actual debt costs (as well as actual costs for other activities) into prices, generally with some oversight of the prudence of the relevant decisions. Examples from the US may not be easily transplanted into a system that uses benchmarks for financing arrangements (and where, as a consequence, the regulator has less power to assess the prudence of decisions).

In the UK, which operates under a similar benchmark approach to financing arrangements as Australia, IPO costs have not been allowed on the grounds that they were incurred by the UK Government during privatisation. OFWAT and OFGEM have indicated that SEO transaction costs would only be considered on a case-by-case basis.

Recommendations

General Australian regulatory practice with respect to debt and equity issuance costs is considered below, in conjunction with ACG's specific recommendations to the ACCC.

² Debt costs are important, however, in the determination of the RAV, and specifically in determination of the "Allowance for Funds Used During Construction" (AFDUC), which was earlier referred to as "Interest During Construction" (IDC). See Leonard Goodman, (1998), *The Process of Ratemaking*, Public Utilities reports Inc., Vol. 2, p.808.

³ Goodman, Leonard S. (1998), *The Process of Ratemaking*, Public Utilities reports, Inc., Vol. I, p.638.

Equity Raising Costs — Proxied by Initial Public Offerings

In the last few years the ACCC has provided equity capital raising costs to GasNet and some electricity Transmission Network System Providers (TNSPs). The ACCC's logic applied in the GasNet access arrangement was that "these costs are required to be paid by an entity when it undertakes capital raising ... [and] does not consider that they have been incorporated in GasNet's capital base."⁴ The ACCC is the only Australian regulator to have recognised equity raising costs in this way.

Recommendation 1

Legitimacy of recovery of the transaction cost of raising equity for the opening regulatory asset value.

Whether the transaction cost of raising the equity for the assets in place when a regulated entity first enters a formal cost-based regulatory regime depends on the asset valuation methodology that is adopted.

Where a depreciated optimised replacement cost (DORC) methodology is used, the primary goal is to generate an opening regulatory asset value that replicates the cost structure of a hypothetical efficient new entrant. As such a new entrant would have to raise equity to finance the hypothetical network, in principle, an allowance for the transaction cost of raising that finance would appear appropriate.

That said, theory does not tell us how the equity should be raised — nor require that the hypothetical entity be a stand-alone entity. There may be lower cost approaches to equity raising, such as private equity placements, although there is little reliable information on the transaction costs of that form of equity. Thus, regulators may decide to use IPO costs, which would tend to err on the conservative side.

However, we note that the DORC methodology is only one of a number of methodologies that could be used to set the starting value for the assets in place at the commencement of formal, cost-based regulation. Whether the inclusion of an allowance for the transaction cost of raising equity is appropriate for other asset valuation approaches is dependent on the actual methodology that is adopted – and, in particular, depends upon the extent to which a concept of cost is a feature of the particular valuation methodology.

If the regulatory asset value for a regulated entity has already been established, we do not consider it necessarily appropriate to now include an allowance for the transaction cost of raising equity in the starting regulatory asset value, but rather consider that it is a matter that the Commission would need to consider on its merits. By way of example, if a regulatory asset value had been established in a previous regulatory decision and a clear signal was provided that the starting value would just be 'rolled-forward', then it would be appropriate to preserve the starting value rather than reopening it – including to reopen it to reflect current views on the transaction cost of raising equity.

⁴ ACCC (13 November 2002), *Final Decision: GasNet Australia access arrangement revisions for the Principal Transmission System*, p. 150.

We note that, in some situations, the relevant law may preclude the implicit reopening of initial regulatory values that have already been determined for matters such as the addition of the transaction cost of raising equity (just as the law may preclude a regulator from reopening the previously-determined value in a way that was disadvantageous to the asset owner, for example, to reflect current views about the appropriate approach to optimisation when estimating a DORC value). By way of example, in both Victoria and South Australia the regulatory values of the assets in place at the time of privatisation were locked-in by the relevant regulatory instruments, which would preclude a reopening of those values in a manner that is neither beneficial nor detrimental to the asset owner.

We also consider that the Gas Code may contain a similar general prohibition. In the case of assets that are already regulated under the Gas Code (and therefore already have an initial capital base determined), we consider that Section 8.9 would exclude the consideration of equity raising transaction costs in respect of the assets in place when the first Access Arrangement for that pipeline was approved. This is because the formula set out in Section 8.9 states explicitly that the previously approved value for the regulated assets should be updated by adding in expenditure on new capital assets and deducting depreciation (and possibly adjusting for redundancy), and with other revaluations excluded. Including an allowance for equity transaction costs for the existing assets would amount to such a revaluation. We also consider that Section 8.36, 'Non-Capital Costs', could not be used to argue for the inclusion of an allowance for transactions costs associated with financing the existing assets. The finance-related transaction costs are costs that are incurred upfront at the time that assets are constructed (if they are incurred at all), and so are not the 'costs incurred in the delivery of the Reference Service', which clearly is restricted to the ongoing costs of operating the systems (and not previously incurred costs).

Another case is where new standalone assets are built and a regulatory capital base is to be established in order to determine opening tariffs. Theory suggests that the opening regulatory value for the asset should reflect all costs (including an allowance for the cost of raising the equity), but again, theory does not provide strong guidance as to how the assets should be financed. For example, they could be financed out of retained earnings, a private placement or an IPO. Given that the greatest amount of public information is available on IPO's, we recommend the use of IPO costs as the proxy for equity capital raising costs for new stand-alone assets. In this case also, we would recommend capitalisation of equity raising transaction costs into the capital base and subsequent amortisation. However, application of the same principles through a direct allowance to cash flows will provide the same result on a present value basis.

Recommendation 2

Recovery of the transaction cost of raising equity for private and government owned utilities.

The approach to the transaction cost associated with the equity embodied in the starting set of assets recommended in Recommendation 1 is recommended for both private and government owned regulated utilities. This approach is justified on grounds of competitive neutrality.

Recommendation 3

Appropriate benchmark for IPO costs.

The benchmark for IPO costs (to be used as the benchmark cost of raising the initial amount of equity for an asset, where appropriate) should be based on observations of appropriate comparators. The comparators should be similar in terms of size and risk characteristics. The floats of the Australian entities whose dominant activities are in the provision of regulated infrastructure services will provide the best comparators for regulated utility companies.

The ACCC has applied a 3.55% transaction cost allowance for IPOs based on the average of five infrastructure capital raisings. We have updated this estimate for the floats of Prime Infrastructure and the Diversified Utilities Energy Trust (DUET) and removed Envestra's seasoned equity raising from the sample applied by the ACCC. As a result, the median (average) IPO transaction cost rises to 3.83% (3.69%). ACG recommends that the median transaction cost of 3.83% be applied as the new benchmark.⁵ Whilst we found evidence that the median float cost in 22 recent floats was 4.4%, utility floats can be expected to have a lower transaction cost due to their stable regulated cash flow streams, and so the use of the benchmark derived from the more limited sample of floats of regulated utility companies (i.e. 3.83%) is recommended. It is also recommended that the benchmark level of IPO costs be reviewed every 5 years.

Recommendation 4

Method of recovery of the cost of raising the initial equity.

If the regulator has determined that an allowance for raising the initial quantum of equity should be provided for, we recommend that this amount be added to the RAV and be depreciated over the life of the assets. In the case of existing assets where an RAV has not been established, this means that the cost of raising the initial equity should be treated as part of the ORC value and depreciated along with other assets to the DORC value. This approach will provide faster recovery than a perpetuity approach, but in present value terms will be equivalent.

Transaction cost of raising equity for subsequent capital expenditure

No Australian regulator has explicitly provided a separate allowance for transaction costs for equity associated with subsequent capital expenditure. However, the ACCC has done so implicitly, by applying its IPO benchmark to the whole regulatory asset base, including additions. In practice, whilst some regulated utility companies have raised equity capital, this has generally been for acquisition activity outside of the regulated business, or a result of their decisions to maintain very high distributions to shareholders.

⁵ The median value is recommended for benchmarking purposes rather than the average. The median is likely to more closely reflect the experience of the 'mid-point' company even if the statistical distribution of costs between companies is skewed.

Recommendation 5

Legitimacy of recovery of the transaction cost of equity associated with subsequent capital expenditure

The appropriate assumption should be that firms finance the equity share of their subsequent capital expenditure in the least cost manner, which implies financing from retained earnings to the extent practicable. This recommendation is consistent with the “pecking order theory” of capital structure. A recent study of business practice concluded:⁶

Firms prefer using internal financing as opposed to using external financing. Furthermore, when external funds are required, a firm prefers debt financing to equity financing.

Accordingly, external injections of equity for subsequent capital expenditure should only be assumed where a case is made that, given the assumed gearing level (i.e. a stock of debt equal to say, 60% of the RAV) and assumptions about other financing decisions (e.g. dividend payout ratio) that are consistent with the regulatory benchmarks, there would be insufficient retained cash flow to finance the equity share of the value of capital expenditure. As cash flow is expected to fluctuate from year to year, such an analysis should be undertaken over a reasonable period of time (such as looking at the average over the regulatory period). In most situations, we would not expect that the need for access to external funds would arise if the entity were financed in a manner that is consistent with the regulatory benchmarks.

Recommendation 6

The appropriate level of cost for the different sources of equity for new investment.

ACG recommends the following approach with respect to each source of equity raised subsequent to listing:

- Retained cash flow, dividend re-investment plans (DRP) — zero.
- New equity injections — based on the transaction cost associated with share purchase plans (SPP), private placements, rights issues and public offers, which collectively are SEOs

Thus, where analysis suggests that new equity injections would be required, we recommend that estimates of the transaction costs associated with SEOs be used.

⁶ Cai, Francis and Arvin Ghosh, (2003), “Tests of Capital Structure Theory: A Binomial Approach”, *Journal of Business & Economic Studies*, Vol.9, No. 2, p. 1.

Recommendation 7**Benchmarking SEO costs**

In order to derive a benchmark for SEO costs, we analysed data for SEOs undertaken by 28 companies, with market capitalisations greater than \$200 million, between 2001 and 2004. The data indicated an overall median (average) SEO cost of 2.97% (3.05%) of gross proceeds. We selected four companies from the group, two of which are infrastructure providers (Australian Infrastructure Fund and Macquarie Infrastructure Fund), and two property trusts that exhibit stable cash flow characteristics (Bunnings Warehouse Property Trust and Macquarie Office Trust). The median (average) SEO transaction cost for this group was 2.93% (2.97%). We conclude that an SEO transaction cost benchmark of 3% is appropriate for regulated infrastructure companies. As for Recommendation 3, it is recommended that the benchmark level of SEO transaction costs be reviewed every 5 years.

Recommendation 8

Method of recovery of the benchmark cost of raising equity for ongoing capital expenditure.

If the regulator has determined that an allowance for the SEO cost of raising equity for ongoing capital expenditure should be provided for, we recommend that this amount be added to the RAV (i.e. included as part of the capital expenditure cost) and depreciated over the life of the relevant assets. This follows the approach recommended for the treatment of the transaction cost for the initial equity.

Debt raising costs

Debt raising costs have been allowed by a number of Australian regulators, in addition to the ACCC. In Australia, debt-raising costs of 5 basis points per annum (bppa) were first allowed in 2002 by the Victorian Essential Services Commission (ESC) in connection with its determination of gas access arrangements.

Recommendation 9

Legitimacy of recovery of debt raising costs

Debt raising costs are a legitimate expense that should be recovered through the revenues of the regulated utility. In addition, in contrast to equity, debt finance has a defined term, and so transaction costs for debt associated with existing assets continue to be incurred in the future. Accordingly, a different treatment of the transaction cost of raising debt is justifiable.

Given that transaction costs associated with debt would continue to be incurred for the whole value of the investment, we consider that the most appropriate means of making this allowance is through either an addition to the estimated weighted average cost of capital, or as a direct allowance to operating expenses.

In connection with the establishment of an RAV, the debt raising transaction costs that are capitalised into the RAV should only be costs that are incremental to the benchmark debt raising transactions costs associated with debt re-financing in an operating company.

Recommendation 10

Appropriateness of the bond market proxy debt assumption.

One of the main reasons that regulators have used corporate bonds as a basis for deriving benchmark debt financing costs is because the fact that the bonds are traded means that up-to-date information is available on current yields (although the lack of depth in the Australian corporate bond market implies that the use of Australian corporate bonds is not unproblematic). Consistent with this, we were unable to find a robust source for up-to-date information on the benchmark financing cost for bank debt and project finance debt, as noted in Table 1 below.

Table 1

FEE STRUCTURES FOR BONDS, BANK AND PROJECT FINANCE DEBT

	Bonds (MTNs)		Term/Revolver Debt		Project Finance	
Main uses	– Refinancing debt		– Refinancing debt – Acquisition		– Construction – Acquisition	
Gross Underwriting or Arranger Fee	– Management fee	– Underwriting fee	– Lead manager (agency)	– Arrangement fee (syndication costs)	– Lead manager (agency)	– Arrangement fee (syndication costs)
Other direct costs	– Selling fee	– Legal, roadshow	– Legal fees	– Co. credit rating	– Legal fees	– Expert opinion fees
	– Co. credit rating	– Issue credit rating	– Co. credit rating			
	– Registry & paying					
Margin benchmark	Observed corporate bond yields, based on credit rating/tenor		No available benchmark		No available benchmark	
Debt margin	Fixed rate or Floating rate	Credit wrapping Swap costs	Fixed rate or Floating rate	Swap costs	Fixed rate or Floating rate	Swap costs
Risk free rate	10 year Commonwealth bond rate					
Excluded fees	– Liquidity/standby facility fee		– Commitment fee – Cancellation fee – Extension fee		– Commitment fee	

Source: The Allen Consulting Group

Another reason that bonds are the appropriate debt market proxy for regulatory purposes is the fact that the major debt market activity of the notional regulated entity is to re-finance its debt, and not to undertake major construction or mergers and acquisition activities. Term and revolver debt is used much more often in the latter activities, as is project finance debt. Thus, transaction costs are relatively high for project finance debt because there are high risks involved in construction or the acquisition of assets, and so borrowers have to undertake substantially more work to understand the risks. Likewise, banks also undertake substantial due diligence work in these circumstances, the cost of which is passed onto the borrower. This is not the case with the mere re-financing of debt through bond issues.

Regarding transaction costs, for corporate bonds that are investment grade, the transaction costs are invariant to the credit risk rating of the bonds (i.e., *ceteris paribus*, AA rated bonds would have the same underwriting cost as BBB+ rated bonds). This has been confirmed in US studies of gross underwriting fees. By contrast, for bank debt and project finance debt, the debt margin and up-front fees are generally correlated to the risk of the undertaking. Thus, the transaction costs associated with many bank loans are not purely transaction costs, but include a blend of transaction costs and a margin for risk.

Thus, the standard assumption by regulators when deriving a benchmark cost of debt finance is that the debt is raised through corporate bonds. Accordingly, consistency requires that the transaction costs reflect the same instrument.

It is noted that the evidence from the actual activities of regulated entities suggests that the standard financing benchmark adopted by Australian regulators is appropriate. Outside of M&A activity (term and revolver bank debt) and construction activity (term, revolver and project finance), it is cost effective for regulated utilities to source their debt finance primarily, or almost exclusively through capital market (bond) issues.

Case studies are provided for GasNet and CitPower, whose bond issues account for 90%–120% of their respective RAVs. This evidence indicates that regulated utilities can, and do, raise bonds in the market to a value equal to, or greater than, the debt component of their RAV.⁷ Moreover, the benchmarking of transaction costs in issuing corporate bonds is the only approach that allows the ACCC to apply an objective transaction cost measure to an appropriate corresponding measure of the debt margin. Other forms of debt components, such as bank revolver loans might have lower associated transaction costs for debt refinancing. However, there is no objective measure of a bank revolver loan debt margin for say, BBB+ rated entities.

⁷ Even if this were not the case, however, it would only be inappropriate to use a bond market proxy for debt costs, and by extension also for debt-raising costs, if it were shown that this provided a (statistically) biased estimate of overall debt costs applicable to the geared component of the RAV for regulated entities.

The assumption that all debt is raised in the Australian market, which is implicit in the use of a margins produced by the CBA Spectrum or similar service to derive the benchmark debt margin may also be questioned, however. There is ample evidence that Australian companies are approaching US and European bond markets, and that this is driven primarily by the fact that this provides a lower cost of funds.⁸ Thus, deriving a benchmark debt margin exclusively with reference to the yield on Australian corporate bonds may overstate the cost of debt finance that could be obtained by an efficient firm.

Recommendation 11

Appropriate allowance for debt raising costs

We have reviewed available data sources, and previous evidence provided to ACCC reviews by utilities. The available empirical evidence in the US, and evidence of costs incurred by Australian companies making international (Euro-dollar and US private placement) bond issues is consistent with the ACCC's base assumption on "placement fees" and advice provided by the four major Australian banks contained in a submission to the ACCC. This is that the placement fees (or in more general terminology, gross underwriting fees) applicable to bond issues of the kind undertaken by Australian companies, assuming a 5-year tenor, are in the order of 5.5 bppa.

The table below outlines the ACCC's build-up of fees to arrive at a cost of 12.5 bppa. This amount exceeded the amount recommended by most of the Australian banks by the 5 bppa of the swap margin. We consider that the swap margin should be treated as part of the debt risk premium rather than the transaction cost on debt, and so excluded from the calculation of transaction costs — this issue is discussed further below.

In Table 2, the estimates of debt transaction costs made by the ACCC for GasNet are compared with the estimates put forward by Australian banks to ElectraNet. The ANZ, CBA, and NAB indicated costs of 8–8.5 bppa. Whilst Westpac also indicated 8 bppa, for the 'placement fee' it also added (at a BBB+ rating) 4 bppa for a swap margin. Thus, the major difference between the estimates made by the ACCC and Westpac on the one hand, and the other three banks on the other, was the inclusion or exclusion of swap margin costs.

⁸ See Philip Baker, (3 April, 2003) "Why funds want to crash private placement market" *Australian Financial Review*: "Europe, Asia and, of course, the local market are all available to local corporations — but for competitive pricing and the chance to lock in long term debt, its impossible to bypass the market also known as the US Regulation D market. 'The pricing that these issues go at simply cannot be replicated in most other markets,' says Westpac's head of credit market research, John Lynam."

Table 2

DEBT RAISING COST ESTIMATES (BPPA), 2002

Non-margin financing fee	ACCC: GasNet	ANZ, CBA and NAB ElectraNet BBB+	Westpac estimate: ElectraNet BBB+
Arranger fee	0.4		
Agency fee	0.3		
Placement fee	5		
Gross underwriting fees	5.7	5.0–7.0	
Company credit rating fees	1.2		
Issue credit rating fees			
Legal fees	0.6	1.0–3.0 ^{b)}	
Registration and payment fees			
Total before swap margin	7.5	8.0–8.5	8.0
Dealer swap margin	5.0		4.0
Total	12.5	8.0–8.5	12.0

Source: ACCC (13 November, 2002), Final Decision: GasNet access arrangement revisions for the Principal Transmission System, p.147. Bank estimates are contained in ElectraNet SA (11 October, 2002).

It should also be noted that while providing advice on costs associated with 5 year and 10 year MTNs, there was no allowance in the banks' advice for the effect of tenor on annualised bond issue transaction costs, even though academic research has found tenor to be a major and statistically significant determinant of cost on a bppa basis. However, both the ACCC and Westpac reduced the placement fee for credit ratings above BBB+ even though there is no empirical evidence that there is an underwriting fee differential between different issues that are investment grade, other things being equal. In addition, it is not clear that company credit rating fees were included by the banks in their estimates of transaction costs associated with a \$200 million bond issue.

Recommendation 12

Benchmarking debt issuance costs

We found two objective sources of data for fees applied by investment banks in bond issues made by Australian companies, including regulated utilities: Bloomberg, and the benchmarking survey undertaken by Osborne Associates. The Bloomberg data are only available for Australian companies accessing the Euro-dollar, Japanese Yen and US private placement markets or for Australian MTN issues jointly sold in Australia and these international markets. These data are limited to the gross underwriting fees charged. The Osborne benchmarking data are for domestic bond issues, and are derived from an on-line survey that is contributed to on a voluntary basis by the bond issuing companies.

Given the extent of international competition in bond markets and the fact that these markets should equilibrate over time, ACG considers that the Bloomberg data for international bond issues by Australian firms are a reasonable proxy for underwriting fees in the Australian bond market.

The rolling 5-year median of gross underwriting fees for Australian international bond issues currently stands at 4.1 bppa for 10-year tenor, and 5.5 bppa for 5-year tenor. We recommend the adoption of an underwriting fee benchmark of 5.5 bppa.

To this 5.5 bppa for gross underwriting fees must be added:

- Legal and roadshow expenses of a maximum of \$100,000 per issue (commonly \$75,000 to \$100,000).
- Credit rating fees of \$40,000–50,000 per annum for the firm.
- Credit rating fees for each issue in the range of 2–5 basis points up-front (say 3.5 basis points for the median size issue).
- Registry charges, issue and paying fees of \$1,000 per annum and \$1 per \$1 million of bond value paid quarterly.⁹

Table 3 displays how, applying the proposed benchmark approach, the bppa transaction cost varies with the overall size of debt and number of issues. The bppa cost reduces from 10.4 bppa for one issue of \$175 million, to 8.0 bppa for 6 issues (i.e. raising \$1.05 billion). The reduction in debt-raising transaction cost with more debt raised stems from the spreading of assumed company credit rating fixed costs of \$50,000 per annum.

Table 3

STANDARD BENCHMARK FOR MTN ISSUES (BPPA)

Fee	Explanation/ sources	1 Issue	2 Issues	4 Issues	6 Issues
Amount raised	Multiples of median MTN issue size	\$175m	\$350m	\$700m	\$1,050m
1) Gross Underwriting Fees	Bloomberg for Aust. Intl. issues, tenor adjusted.	5.50	5.50	5.50	5.50
2) Legal and Roadshow	\$75K – \$100K: Industry sources	1.14	1.14	1.14	1.14
3) Company credit rating	\$30K – \$50K: S&P Ratings	2.86	1.43	0.71	0.48
4) Issue credit rating	3.5 (2–5) bps up-front: S&P Ratings	0.70	0.70	0.70	0.70
5) Registry fees	3K per issue Osborne Assoc.	0.17	0.17	0.17	0.17
6) Paying fees	\$1/\$1m quarterly Osborne Assoc.	0.01	0.01	0.01	0.01
Totals	Basis points p.a.	10.4	9.0	8.2	8.0

Sources: Bloomberg, industry sources, S&P Ratings, Osborne Associates

⁹ Sourced from Osborne Benchmarking 2003, Report No. 5.

The benchmark debt-raising transaction cost presented in Table 3 would not be adjusted for credit rating, since empirical evidence does not support such an adjustment. In other words, at the standard issue size (\$175 million) and tenor (5 years) assumed in the benchmark, bonds rated at investment grade are a commodity, with risk associated with different credit ratings being compensated for in the debt margin.

ACG believes that the estimates set out in Table 3 are conservative given that a 5 year tenor has been assumed rather than a 10 year tenor, which might be seen as consistent with the use of a 10 year debt margin. In addition, we have applied the top end of the range of expected legal and roadshow costs (\$100,000).

Recommendation 13

Method of recovery of debt issuance costs

In the case of transaction costs associated with the equity portion of finance, we have recommended capitalising the transaction cost into the RAV, since these costs are only relevant for a portion of the total stock of capital (in particular, excluding the portion of capital expenditure that can be assumed to be financed through retained earnings).

In the case of debt-raising costs, as discussed above, the costs are continually re-incurred as debt is rolled over, and so the transaction cost is incurred in respect of the total stock of capital. This implies that a simpler form of recovery can be used. There are two approaches:

- Adding the annual basis points equivalent (bppa) of bond issuance costs to the benchmark debt margin when deriving the regulatory rate of return. This will provide an annual allowance equal to the annual basis points equivalent multiplied by the assumed regulatory stock of debt (e.g. 60 per cent of the RAV), which is the appropriate annual allowance; or
- Including an annual allowance equivalent in amount to that in the first dot-point in cash flows (e.g. as another category of operating expenses).

These methods are equivalent in valuation terms.

Recommendation 14

Dealer swap margins and credit-wrapping

Two other potential components of the fees paid for issuing debt that we consider should be excluded from the derivation of the allowance for the transaction cost of debt are the dealer swap margin and credit wrapping fees. Both of these components are in the nature of risk premia, and should be considered when deriving the debt risk premium rather than the transaction cost element.

We also consider that it is likely to be inappropriate to include either of these allowances in the debt risk premium, although their relevance will depend upon the method that is used to derive that premium.

Turning first to the dealer swap margin, the margin reflects the cost of converting floating rate debt into fixed rate debt. However, if the regulator derives the debt risk premium with reference to fixed rate corporate bonds (which is the case if CBA Spectrum is used), then the debt risk premium will already reflect the cost of obtaining fixed rate debt — and adding a swap margin would be double counting. Moreover, a number of utility companies maintain a reasonable proportion of (un-swapped) floating rate debt, which is likely to be a rational strategy for firms whose revenue is linked to outturn inflation. For this portion of debt, it would be inappropriate to include a swap margin. Furthermore, if companies do hold a portion of their debt as floating rate debt, then using fixed rate debt to derive the debt risk premium would imply that the debt risk premium was likely to overstate the cost of debt for an efficient regulated entity.

It is noted that swaps are sometimes undertaken to exploit perceived mismatches in the pricing between fixed and floating rate debt. In such a case, bonds may be issued as floating rate and then swapped (if this is required by the risk management strategy) into fixed rate bonds. However, such an indirect route would only be undertaken where it reduces the cost of debt — and so the cost of debt obtainable using this strategy should always be lower than the debt risk premium that the regulator would derive if it had exclusive reference to the yields on fixed-rate bonds.

Turning to credit wrapping, it is noted that firms would only undertake credit wrapping (i.e. paying an insurance premium so that the firm can issue bonds at a higher credit rating than its stand alone rating) where the all-up cost of issuing credit-wrapped bonds is lower than the cost of issuing bonds directly at its own credit rating. Accordingly, if the regulator derives a benchmark debt risk premium by observing the yields on fixed rate corporate bonds for a credit rating consistent with that of the regulated firm (that is, for the credit rating consistent with the notional gearing level etc.), then including a credit-wrapping premium would be double counting.

If credit-wrapping fees were to be allowed as a cost, it would be necessary to also take account of the lower yield that would be payable on the wrapped debt (i.e. because it would be issued at a higher credit rating — typically AAA), which should imply a lower all-up cost of debt. Such an approach would increase the complexity of deriving a benchmark allowance for the debt risk premium and may not be justified.

Chapter 1

Introduction

1.1 Background to the study

An explicit regulatory allowance for debt or equity raising costs was not made in Australia until October 2002, when a 5 basis point allowance for debt issuance was allowed by the Office of the Regulator General (now the Essential Services Commission) in connection with access arrangements for the Victorian gas distributors.

For debt raising transaction costs, the ACCC made allowances of between 10.5 and 12.5 basis points per annum (bppa) during decisions made with respect to gas and electricity transmission companies in 2002 and 2003. During the same period, the ACCC's estimate of equity raising costs was 0.217 percent per year. However, when making these determinations, the ACCC foreshadowed undertaking further research in this area. For example, in the South Australian Transmission Network Revenue Cap decision, the ACCC stated in relation to equity raising costs that:¹⁰

As with debt raising costs, the Commission intends to undertake further research on this issue for future regulatory decisions.

With this background, the ACCC commissioned The Allen Consulting Group (ACG) to undertake a review of the issues surrounding the estimation of debt and equity raising costs, and to advise on the practicality of establishing appropriate benchmarks for such costs that could be relied upon by the ACCC in future reviews of access arrangements.

1.2 The brief

The brief provided to The Allen Consulting Group by the ACCC set out two broad requirements:

- The first requirement was to gather comprehensive information about institutional and other aspects of the capital issuance process (both debt and equity) by Australian companies, with particular reference to infrastructure companies;
- The second requirement was for ACG to form an opinion on key methodological issues based on theory, evidence and analysis and to provide a recommendation on a number of specific issues to the ACCC.

¹⁰ ACCC, (11 December, 2002), *Decision: South Australian Transmission Network Revenue Cap 2003–2007/08*, p.28.

1.3 Outline of the study

The study begins in Chapter 2, by establishing the methodological framework within which the issues contained in the brief can be addressed. A major component of the methodological framework is the establishment of the idea of the notional regulated entity, and its regulation under CPI-X benchmark regulation. The CPI-X approach regulates the entire capital structure, unlike rate of return regulation practiced in the US, which regulates only the equity component and allows a pass-through of debt costs. The CPI-X framework applied in Australia requires that a benchmarking approach to capital costs be applied. Chapter 2 also discusses methodological issues such as interviews with market participants and data sources and analysis.

In Chapter 3, we review the international literature on debt and equity raising costs as well as US and UK regulatory precedents. This literature addresses such issues as the extent of fixed costs and economies of scale in debt and equity capital raisings. In Chapter 4, Australian regulatory practice to date is outlined, and compared with the international evidence. This chapter also examines some Australian appeals regarding debt issuance costs, as well as accounting standards and taxation treatment.

Chapters 5 and 6 examine the debt markets faced by Australian regulated firms in some detail. They provide descriptive statistics relating to empirical issues such as the average tenor and size of debt tranche for alternative forms of bank debt, as well as capital market issues (bonds). Both domestic and international sources of debt finance are examined, as is the practicality of establishing benchmarks for these costs.

Chapter 7 deals with IPOs and presents results for an analysis of these costs based on Australian data for the last three years. In Chapter 8 a parallel analysis is undertaken for SEOs.

Chapter 2

Methodological Issues

2.1 Introduction

In this chapter we lay the foundations for later analysis by developing the concept of the ‘notional regulated entity’ and its relationship to capital raising transaction costs. Within the Australian framework of incentive regulation, it is important to establish the parameters that govern the necessity for regulatory benchmarks. We conclude the chapter by considering the methodological approaches to be applied in succeeding chapters.

2.2 The ‘notional regulated entity’

Within the benchmarking approach, it is important to clearly establish the concept of the ‘notional regulated entity.’ Under US-style rate of return regulation, the Regulated Asset Value (RAV) is the book value of equity of the regulated enterprise. Debt issues, including the embedded cost of debt, are not the focus of the regulator, as they are effectively pass-through items in the context of the allowed rate of return on equity.¹¹ The main concern of a regulator under rate of return regulation is the establishment of a ‘fair rate of return’ on equity.

The notional regulated entity

A key objective of setting regulated prices based upon benchmarks for financing structure — rather than based upon actual financing arrangements and costs — is to provide the businesses with an incentive to adopt efficient financing arrangements. In particular, the businesses retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and customers are protected if regulated entities are inefficient in their financing decisions. A secondary benefit of using a benchmark for financing structure is that the regulatory process is made simpler, and in particular to abstract from some of the complex financing arrangements that are now commonplace with utilities (that is, the ‘world class financial engineering’ that has been mentioned in the financial press).

Under the benchmark approach to regulation, an optimum (or benchmark) capital structure is determined, and benchmarks are established for the cost of debt (which may include debt raising costs) in order to provide an incentive for innovation in financing activities. The debt costs faced by a utility are an important determinant of overall share performance, since these costs are typically a large percentage (often 60% or more) of RAV. A regulated utility has an opportunity to create value for shareholders by:

- negotiating with alternative debt providers;
- approaching new sources of debt finance (such as the international bond market);
- enhancing its credit rating through ‘wrapping’;

¹¹ Thompson, Howard E. (1991), *Regulatory Finance: Financial Foundations of Rate of Return Regulation*, Kluwer Academic Publishers, pp. 4–6.

- introducing more finely targeted equity–debt hybrids; and
- managing its interest and exchange rate risks through interest rate and currency swaps.

Such activities are aimed at reducing the utility’s cost of capital. If actual costs were allowed for these activities, it would be necessary for regulators to constrain the rate of return. In that case, the incentive to undertake financial innovation would also be curtailed.

The core business of the regulated entity

The entity that owns the regulated utility may derive synergies from operation of non–regulated activities, which are its own commercial concern outside of the regulated entity. From a regulator’s viewpoint, these outside, non–core activities of the business entity must be ignored. However, they may impact on the actual parameters of the regulated entity. For example, the credit rating of the business entity will also reflect the risks of the non–regulated activities. It will also reflect the actual current and expected future gearing of the business entity, and not the stable notional credit rating applied by the regulator to the regulated utility.

Outcomes for shareholders and customers

Customers of the regulated entity should not cross–subsidise its shareholders or customers of any non–regulated business associated with the owners of the regulated entity. The focus of the regulated entity is on organic growth within its territory and activity, not on conglomerate expansion or M&A activity with respect to other regulated or non–regulated businesses. The business entity may choose to pursue such opportunities, but these risks are borne, and rewards earned, by shareholders.

With respect to debt and equity raising costs, the efficient regulated entity can be expected to pursue the least cost alternative(s) first.

2.3 Notional capital structure and benchmarking approach

In recent years, there has been an increasing recognition from Australian regulators that, as well as requiring a return on the debt and equity finance associated with a regulated activity, there is also a cost to raising that finance in the first place — a transaction cost. These transaction costs include such matters as fees for investment bankers writing information memorandums for bond issues, fees for lawyers preparing documentation, fees for obtaining a credit rating for a particular issue, and like matters.

Benchmark debt approach

A benchmarking approach to debt and equity raising costs is a necessary concomitant of the benchmarking framework. With respect to debt and equity raising costs, a benchmark approach has two main advantages:

- avoids confusion and cross–subsidisation if the equity/debt raised by the regulated entity also raised money for other (non–regulated) activities; and
- provides an incentive target for the regulated entity to strive for financing efficiencies.

The main disadvantages of the benchmark approach with respect to debt and equity raising costs are that:

- it may not accurately set an appropriate target for the regulated utility due to market conditions at the time and structural changes/competition in the markets; and
- it may be difficult for the regulator to share the benefits of financial innovation by the utility with customers.

Debt issuance transaction costs

The discussion of benchmarking debt-related transaction costs has suffered from considerable confusion, since it has often not been made clear what the benchmark is. In the benchmark approach for financing arrangements employed by regulators in Australia, the benchmark debt margin and benchmark transaction cost of raising debt are as follows:

- ***Benchmark debt margin*** — the debt margin for fixed rate bonds for the appropriate notional credit rating (for the notional gearing measured against the Regulated Asset Value (RAV)) and tenor, as estimated by a credible, independent source (such as the CBASpectrum service).
- ***Benchmark debt raising cost*** — the transaction cost of re-financing fixed rate bonds to the value of the notional gearing component of the utility measured against the RAV assuming a consistent notional credit rating.

The debt benchmark does not relate to acquisitions by the regulated utility company, nor does it relate to any non-core construction or investment activities that are being undertaken. Thus, the transaction costs associated with the benchmark cost of debt cannot relate to activities outside of the re-financing of bonds for the regulated utility's core activities.

Why actual debt transaction costs are inappropriate

Given a model that uses benchmarks to derive the financing arrangements (including the required returns on equity and debt), the principle of consistency suggests that any allowance for these transaction costs should be based upon a benchmark allowance rather than the actual costs that may be incurred by the businesses. Indeed, the use of actual financing costs poses a number of obvious problems.

- First, the actual levels of debt held by the relevant entities generally would not be consistent with the notional capital structure. In particular, as the market values of regulated entities typically exceed their regulatory values, the actual levels of debt and equity would generally exceed the total level of finance in the notional capital structure (the total level of finance is the regulatory asset value). Accordingly, the use of the total transaction costs incurred by the firm would be inappropriate.
- Secondly, for many businesses, it may be difficult to identify the levels of debt and equity that are associated with the regulatory business as opposed to other activities that the businesses may undertake. For such businesses, the use of actual transaction costs would be impracticable.

- Thirdly, for some sources of finance, there is a trade-off between the required return (or margin) on that finance, and the transaction costs incurred. Accordingly, it may be inappropriate even to scale down the costs incurred by the regulated entity to derive an allowance for transaction costs.

2.4 Interviews with market participants

A number of interviews were undertaken with market participants in the stock broking, legal, investment banking, capital markets and bank debt sectors. These interviews were undertaken with the following objectives in mind:

- Enhancing understanding of the structures of fees charged in various markets;
- Confirming the availability of databases relating to fees; and,
- Understanding and interpretation of the databases discussed below.

Interviews were conducted with executives of the following organisations:

- ANZ Banking Group Limited
- Blake Dawson Waldron
- Citigroup
- National Australia Bank Limited
- OFWAT (UK)
- OFGEM (UK)
- Osborne Associates
- Standard & Poor's
- Tolhurst Noall
- Wilson HTM

Interviews were useful in gaining an insight into the fee establishment process. The interviews were not undertaken with a view to forming an opinion on the total level of fees charged. In order to establish a more objective benchmark of fees, it will be necessary to rely as much as possible on published sources of information.

2.5 Data sources and analysis

After discussions with market participants, ACG referred to the following sources of data relating to capital raising transaction cost fee structures:

- **Prospectuses:** In the case of IPOs and SEOs, prospectuses were downloaded from Bloomberg.
- **Basis Point:** The *Basis Point* service located in Hong Kong was the second main source of data on fees charged in connection with bank loans and project finance deals.
- **Bloomberg:** The Bloomberg service was accessed to derive data on fees charged in connection with bond issues, and also to develop a database on bond issues and bank loans made by Australian infrastructure companies.

- **Osborne Associates:** Osborne Associates undertakes benchmarking of various funding program fees and charges. We have reviewed the Osborne Benchmarking Report No. 5 for 2003, which describes costs for MTN and other facilities.

The analysis of data in this report takes two main forms:

- **Descriptive statistics** — descriptive statistics are compiled for various categories of debt and bond issues in order to build up a picture of actual market practice.
- **Regression analysis** — simple multiple least squares regression is applied in some cases to estimate cost functions and predict fees. This follows the practice in academic research on the topic.

2.6 Conclusions

It should be stressed that the activities of the notional regulated entity are constrained to the core regulated activities. Thus, the benchmarked costs of debt and equity, and the respective costs of raising capital must be constrained to the following activities:

- **Debt raising costs:** The costs involved in raising debt which is for debt re-payment or rollover, and not for M&A activity. In other words, to maintain the capital structure of the core regulated business within the bounds of its normal organic growth (e.g. incremental growth in customer base and/or usage rates).
- **Equity raising costs:** In appropriate circumstances it may be necessary for the notional entity to raise new equity capital. Such circumstances may include:
 - to maintain the benchmark notional capital structure and therefore the notional credit rating and financial integrity of the entity if there is lumpy capital expenditure.
 - Allowing for equity raising costs in the initial determination of the RAV (e.g. DORC).

These applications specifically exclude M&A activity (including takeovers and management buyouts), which is aimed at creating shareholder value outside of the regulatory process. Thus, even when two adjacent regulated businesses merge, the specific transactions costs, including debt and equity costs, and costs of raising debt and equity cannot be included in the regulatory process. Benchmark transaction costs must continue to be relied upon.

Chapter 3

Literature Review and Regulatory Precedents

3.1 Introduction

This chapter reviews international research and investigates regulatory precedents in other jurisdictions relating to debt and equity raising costs. This provides background for the discussion of Australian regulatory experience and empirical evidence, which is considered in later chapters.

While IPO listing discounts and other aspects of the IPO process have been examined by the academic literature in Australia, there has not been a systematic evaluation of the cost of listing. Neither has there been an Australian study examining debt-raising costs. However, both these issues have been examined recently for US, UK, Hong Kong and global capital market issues.

3.2 Equity costs — international literature

The international literature on the cost of equity raisings can be divided into two components: IPO costs, and SEO costs. These are considered in turn.

Initial Public Offerings (IPOs)

In 1996 a comprehensive review of the cost of raising capital in the US was undertaken by Lee, Lochhead, Ritter and Zhou, and was published in *The Journal of Financial Research*.¹² “Gross spread” (GS) was defined as the “commissions paid to investment bankers when securities are issued” and “other direct costs” or “expenses” (E) were said to include the “legal, auditing, and printing costs associated with putting together a prospectus.” Total Direct Cost (TDC) was the sum of gross spread and expenses. The results for IPOs, expressed as a percentage of the gross proceeds, are summarised in Table 3.1 below.

In the table, the average Total Cost of 11% is weighted by the fact that the average size of IPO was only \$24.4 million. For IPOs in the USD200–499.99 million category, for example, the average Total Cost was 6.53%. On the basis of this evidence, it was concluded that “substantial economies of scale exist in both the gross spreads and other expenses.” It was also concluded, like Bhagat and Frost had previously, that “spreads and direct costs are lower for utilities than for non-utilities”, possibly due to their “relative noncomplexity”.¹³

¹² I.Lee, S. Lochhead, J. Ritter and Q. Zhao (Spring 1996), “The costs of raising capital”, *The Journal of Financial Research*, Vol. XIX, No. 1, pp. 59–74.

¹³ Bhagat, S. and P. A. Frost (1986) “Issuing costs to existing shareholders in competitive and negotiated underwritten public utility equity offerings”, *Journal of Financial Economics*, Vol; 15, pp. 233–59.

Table 3.1

US IPOs: DIRECT COSTS AS A PERCENTAGE OF GROSS PROCEEDS, 1990–94

Proceeds (USDm)	Gross Spread	Expenses	Total Direct Costs
0–9.99	9.05	7.91	16.96
10–19.99	7.24	4.39	11.63
20–39.99	7.01	2.69	9.70
40–59.99	6.96	1.76	8.72
60–79.99	6.74	1.46	8.20
80–99.99	6.47	1.44	7.91
100–199.99	6.03	1.03	7.06
200–499.99	5.67	.86	6.53
500–up	5.21	.51	5.72
Total	7.31	3.69	11.00

Source: Lee, I., S. Lochhead, J. Ritter and Q. Zhao (Spring 1996), p.62.

In a study of Hong Kong equity issues, Chen and Wu found that the direct costs for IPOs were 10.44% of gross proceeds¹⁴.

Seasoned Equity Offerings (SEOs)

Seasoned Equity Offerings (SEOs) are issues of new equity made by companies that have already been listed for some time. Such offerings may be required in the course of acquisitions to maintain an appropriate gearing level, or to assist in raising capital for new projects and lumpy capital expenditure.

Lee, Lochhead, Ritter and Zhao found that for US SEOs, the average direct cost was 7.1% of gross proceeds.¹⁵ On the other hand, this cost ratio was only 5.1% for companies listed on the New York Stock Exchange, which would tend to be larger and have a higher credit profile. On a cross-sectional basis, the results were consistent with the findings for IPOs, showing a marked reduction in cost per dollar of capital raised as the size of SEO increased. It was concluded that there are significant economies of scale in the issue of seasoned equity. In other words, the results implied that there are significant fixed costs in making seasoned equity issues. In addition, for each size category of gross proceeds shown in Table 3.4, the Total Direct Cost of an SEO is found to be lower than for a similar sized IPO issue. That is, compared with IPOs, SEOs are less expensive per dollar of proceeds raised.

¹⁴ Chen, K.C. and Lifan Wu, (July–December 2002), “Cost of raising capital – initial public offerings (IPOs) and seasoned equity offerings (SEOs) – in Hong Kong”, *Journal of Financial Management and Analysis*, Vol. 15, Issue 2, pp. 27–37.

¹⁵ The US sample of SEOs excluded rights issues, which tend to be relatively rare in that country.

Table 3.2

US SEASONED EQUITY OFFERS: DIRECT COSTS AS A PERCENTAGE OF GROSS PROCEEDS, 1990–94

Proceeds (USDm)	Gross Spread	Expenses	Total Direct Costs
0–9.99	7.72	5.56	13.28
10–19.99	6.23	2.49	8.72
20–39.99	5.60	1.33	6.93
40–59.99	5.05	0.82	5.87
60–79.99	4.57	0.61	5.18
80–99.99	4.25	0.48	4.73
100–199.99	3.85	0.37	4.22
200–499.99	3.26	0.21	3.47
500–up	3.03	0.12	3.15
Total	5.44	1.67	7.11

Source: Lee, I., S. Lockhead, J. Ritter and Q. Zhao (Spring 1996), p.62.

Chen and Wu found that in Hong Kong, the average cost of SEO issues was 2.85%, which is significantly below the US figure, irrespective of the size of offer. In the UK, the Monopolies and Mergers Commission (MMC) undertook a study of underwriting fees charged in 117 rights issues over the period 1995 to 1997. The results are displayed in Table 3.3 below.

Table 3.3

UK: FEES CHARGED IN RIGHTS ISSUES, 1995 TO 1997 AS A PERCENTAGE OF UNDERWRITTEN PROCEEDS

Gross underwritten proceeds of offer £m	Lead underwriter & financial adviser	Broker	Sub-underwriters	Total
0–10	2.5	1.4	1.3	5.1
10–50	1.4	0.9	1.3	3.6
50–100	1.0	0.5	1.4	2.9
100 and over	1.0	0.4	1.2	2.5
All offers	1.1	0.5	1.3	2.8

Source: MMC (1999), p.71

The UK results for SEOs (all rights issues), with an average 2.8% gross underwriting fee, demonstrate a similarity with the Hong Kong findings. It is also apparent that the selling fees shared by brokers and sub-underwriters amount to around 60% of the total fees.

A recent paper by Altinkilic and Hansen has challenged the traditional view that there are large fixed costs in seasoned equity and debt issues. They examined 1,325 US SEOs from 1990 to 1997 and found evidence suggesting that fixed cost is no more than 10% of total fees. In other words, underwriter costs are mostly variable. As discussed above, the conventional wisdom presents a picture of declining underwriter spread as size of issue rises. Consistent with Lee, Lochhead, Ritter and Zhou's results, Altinkilic and Hansen's evidence suggests, on this interpretation, that a \$15 million issue costs 6.32% of gross proceeds, while a \$150 million issue costs only 4.37%. They comment as follows:¹⁶

This looks like economies of scale, whose "larger is cheaper" prescription tells the firm seeking \$15 million at 6.32% that it can raise \$150 million at 4.37%. However, although the cheaper spread may be plausible for a \$1 billion market capitalization firm, it is implausible for a \$50 million firm... To see that fixed cost may in fact be small, consider the total cost of the \$15 million, \$948,000 (= \$15,000,000 X 0.0632) as a generous upper-bound estimate for fixed cost. Yet the total cost for the \$150 million exceeds the estimated fixed cost by \$5.6 million.

To test their hypothesis of relatively high SEO variable costs, Altinkilic and Hansen estimated the following model:

$$s = \beta_0 + \beta_1 \frac{1}{x_1} + \beta_2 \frac{x_1}{x_2} + \beta_3 x_3 + \beta_4 x_4 + e$$

where:

- s is the spread (cost of the SEO) as a percentage of gross proceeds.
- x_1 is gross proceeds from the SEO.
- x_2 is total market equity at the time of the SEO.
- x_3 is the stock volatility, measured as standard deviation over 220 days prior to the 40 days leading up to the SEO.
- x_4 is a measure of activity in the primary equity market measured as the value of offerings in the three months leading up to the SEO.

This model, fitted to data for 1,325 SEOs yielded an estimated fixed cost of USD222,500. This compared with an average total fee of USD3.4 million, which was 5.38% of the mean proceeds of USD63.4 million. Consistent with expectations, both stock volatility and market activity had a positive impact on spread. In addition Altinkilic and Hansen's results showed that the marginal cost of SEO issues was positive, with the slope of the marginal cost curve being flatter for larger and more highly rated companies. Around a third of companies were found to be making issues under conditions of diseconomies of scale.

¹⁶ Antilkilic, O. and R. S. Hansen (Spring 2000), "Are There Economies of Scale in Underwriting Fees? Evidence of Rising External Financing Costs, *Review of Financial Studies*, Vol, 13, pp. 192-3.

3.3 Debt costs — international literature

The empirical literature on cost of debt issuance is less developed than for equity raisings and is confined to straight and convertible bond issues. Lee, Lochhead, Ritter and Zhao's study found that direct costs of convertible bond issues averaged at 3.79%, and were significantly lower than for SEOs and IPOs. On the other hand, straight bond issue costs were lower still at an average of 2.24%. However, the authors also found a significant difference between investment and non-investment grade bonds.

As displayed in Table 3.4 below, the average Total Cost for investment grade bonds was only 0.94% compared with 3.42% for non-investment grade bonds. In the USD100–199.99 million bond issue category, the average Total Cost was only 0.81%. Lee, Lockhead, Ritter and Zhao did not provide data on the tenor, but if the average for US public bonds in a later study can be taken as a guide, their study would imply per annum bond issue costs in the vicinity of 7.5 to 8.5 bppa for issue sizes of USD100 million or more. It is also noticeable that for investment grade issues, TDC does not vary much between bond issues of USD80–99.99 million and USD200–499.99 million.

Table 3.4

US STRAIGHT BONDS: DIRECT COSTS AS A PERCENTAGE OF GROSS PROCEEDS, 1990–94

Proceeds (USDm)	Investment Grade		Non-investment Grade	
	GS	TDC	GS	TDC
0–9.99	0.58	2.19	–	–
10–19.99	0.50	1.19	5.13	7.41
20–39.99	0.86	1.48	3.11	4.42
40–59.99	0.47	0.94	2.48	3.35
60–79.99	0.61	0.98	3.07	3.84
80–99.99	0.66	0.94	2.78	3.75
100–199.99	0.57	0.81	2.75	3.44
200–499.99	0.50	0.93	2.56	2.96
500–up	0.39	0.57	2.60	2.90
Total	0.58	0.94	2.75	3.42

Source: Lee, I., S. Lochhead and J. Ritter (Spring 1996), p.66.

Altinkilic and Hansen also provided estimates of fixed costs for bond issues using the same methodology as for SEOs.¹⁷ They found that, on average, for a sample of 628 US bond issues the average spread was 1.09% of gross proceeds. They didn't provide descriptive statistics on average tenor, but applying the average of 12.17 years for public issues reported by Livingston and Zhou, this yields an average cost of 9 bppa. For investment grade bonds, this estimate would need to be treated as a maximum, since it includes lower than investment grade bond issues.

Altinkilic and Hansen concluded that bond syndicate fixed costs are USD227,000, which is around 10.4% of the average total underwriting fee of USD2.2 million (i.e. 1.09% times the average bond issue size of USD201 million). The average fixed cost of bond issues is similar to those of SEOs, but these costs are spread over larger sized bond issues.

Livingston and Zhou investigated the determinants of "gross underwriter spread" which was described as "an important component of total issuing costs".¹⁸ They found that the most important influence on gross underwriter spread was the assignment of a low debt rating by rating agencies (i.e. high credit risk). From a rating of AAA down to a level of BBB flat, the gross underwriter spread was found to be essentially invariant with credit rating at around 65 basis points. For credit ratings of BBB/BB and below, the spread per issue rose sharply to a level of over 320 basis points at ratings of CCC and below. Assuming a gross underwriter spread of 65 basis points and an average of 12.17 (10.24) years to maturity for public and private placement issues respectively, this translates to 5.34 (6.34) basis points per annum.

More recently, Amira and Handorf have analysed "gross fees paid by the borrower for the management, underwriting and selling" of US dollar-denominated global bonds.¹⁹ "Global bonds" are bonds that are simultaneously offered and sold in two or more geographic markets. Between 1989 and early 2001, 2,705 global bonds were issued, denominated in 22 different currencies. More than USD500 billion is raised in this market world-wide each year. According to Amira and Handorf, the average gross fees ranged from 46 basis points for AAA rated bonds to 78 basis points for "low quality" borrowers. The respective tenors were 11 years and 13.5 years, which translates into a range of gross fees per annum of 4.2% to 5.8%. The average size of these deals was USD812 million, considerably larger than the average domestic bond issue, even in the US.

3.4 US regulatory precedents

Regulatory cases in the US distinguish between two categories of potential costs with respect to equity raising costs:

- **Cash costs:** These are the direct expenditures on underwriting fees (spreads), marketing and selling costs, legal and accounting fees, printing etc.; and
- **'Market pressure' costs:** This is the result of a (usually temporary) decline in share price due to a new issuance of securities.

¹⁷ M. Livingston and L Zhou (2002), "The impact of rule 144A debt offerings upon bond yields and underwriter fees," *Financial Management*, Vol. 31, Iss. 4, pp.5–28.

¹⁸ Livingston and Zhou report that only 30% of Rule 144A issues reported gross underwriter spread.

¹⁹ Amira, Khaled and William C. Handorf (Spring 2004), *Journal of Investing*, Vol. 13, Iss. 1, pp. 79–91.

The US Federal Energy Regulatory Commission (FERC) concluded in its Order No. 420 “that the evidence is inconclusive to support reflecting market pressure costs in the cost of common equity.”²⁰ The practice of ignoring ‘market pressure’ costs has been followed by all US regulators.

As a general rule, with respect to *future cash costs*, US regulators do not allow any costs for debt or equity unless these are actual costs that are to be incurred. Hence, utilities must provide regulators with evidence that such costs will actually be incurred and in particular, that equity flotation costs are required in the context of the company’s capital structure and funding requirements. Amortisation of such costs is recommended as follows:

- Recurrent small debt/equity flotation costs — amortise over two or three years.
- Infrequent, large debt/equity flotation costs — amortise over a longer period.

Some US jurisdictions do not even allow this. The California commission for example has disallowed claims for such costs by Pacific Gas and Electric Co. on the grounds that its stock was trading above book value.²¹ The Utah commission similarly found no evidence for recovery of such costs since the utility’s shares continued to sell at “much above book value”.

With respect to *past flotation costs*, US regulators have only allowed them when the rate of return has not been high enough in the past to cover acquisition costs. In such circumstances it would be difficult for the utility to raise future capital. As stated by Goodman:²²

Past costs of flotation are allowed only if it is clearly shown that past rates were insufficient to permit their recovery; otherwise flotation costs are allowed only when the company anticipates issuing stock in the test year.

3.5 UK regulatory precedents

In the UK, OFWAT and OFGEM assess the applicable debt margin by analysing observed bond margins for different tenors and ratings, and forming a view on a reasonable benchmark rate for the regulated utility. OFWAT and OFGEM do not provide any specific funding for any costs of raising debt. The UK argument is that the basis points provided for the debt margin already errs on the side of caution, and is within such a band of error that debt raising costs (which are assumed to be relatively small) are assumed to lie within it.²³

However, in a recent submission to OFWAT, the adviser to Water UK submitted a claim, based on its market estimates, for 10–15 basis points per annum for debt raising costs, and also an allowance for equity raising costs.²⁴ Equity raising costs were estimated to be 5% of issued capital, which translated to a 0.3% increment to the cost of equity.

²⁰ 50 Fed. Reg. 21802, 21824 (1985).

²¹ Re Pacific Gas and Electric Co., 137 PUR4th 449, 488 (Calif. PUC, 1992).

²² Goodman, Leonard. S. (1998), *The Process of Ratemaking*, Public Utilities Reports, Inc., Vol. I, p.638.

²³ See OFWAT (5 August, 2004), *Future Water and Sewerage Charges 2005-10: Draft Determinations*, p. 191.

²⁴ NERA (August, 2003), *Evidence on the cost of capital for UK water: a summary paper*, Prepared for Water UK, p. 13.

Equity costs have not been allowed by OFWAT and OFGEM in the past. In this case the logic has been that IPO costs were incurred by H.M. Government in the course of the privatisations, and they are therefore not costs that need to be recovered by investors. Since there have not been any SEOs, the matter of compensation for such equity raising costs has not arisen.

3.6 Conclusions

Our review of empirical evidence on the cost of raising capital is summarised in Table 3.5 below.

Table 3.5

CAPITAL RAISING COSTS: SUMMARY OF EMPIRICAL EVIDENCE

Study	Data	IPO	SEO	Investment Grade Bonds	Bond costs p.a.
Lee, Lochhead, Ritter & Zhou	US 1990–1994	11%	7.1%	94bps	7.5–8.5bps
	USD200–500m	6.53%	3.26%		
Altinkilic & Hansen	US 1990–1997		5.38%	109bps	9bps
Chen & Wu	HK	10.44%	2.85%		
Monopolies & Mergers Commission	UK 1995–1997		2.80%		
Livingston & Zhou	US 1997–1999			65bps	5.3–6.3bps [#]
Amira and Handorf	Global 1989–2001			46–78bps	4.2–5.8bps

Source: Lee, Lochhead, Ritter and Zhou (1996), Altinkilic and Hansen (2000), Chen and Wu (July–December 2002), Livingston and Zhou (2002), MMC(1999) Amira and Handorf (2004). Note: Bond issue costs p.a. based on respective estimated average tenors. # Does not include other direct costs such as legal expenses.

The evidence indicates the following:

- **Initial Public Offerings:** The direct costs of IPOs are relatively high, with 10%–11% of gross proceeds not being unusual. In the US there is a tendency to charge 7%, and larger IPOs have cost 6.53% of gross proceeds.
- **Seasoned Equity Offers:** SEOs have lower cost, but in the US the average ranges from 5.38% to 7.1%. For larger US SEOs the cost is 3.2%, which compares more favourably with the 2.85% and 2.8% that is experienced in Hong Kong and the UK respectively.

- **Investment Grade Bonds:** Investment grade bonds are significantly cheaper per dollar of gross proceeds than non-investment grade bonds, SEOs and IPOs. Up-front costs range from 46 basis points for large global offerings to 109 basis points for domestic US issues. The average Total Cost per annum of a domestic investment grade US bond was probably around 7.5 to 8.5 bppa during the 1990s. For global bonds the cost is even lower.

It will be noted that in the US there is a hierarchy of capital issuing costs ranging from relatively high costs in IPOs to relatively low costs for bonds.

Regulators in the US have not had to deal with the issue of debt issuance costs because they are a passthrough along with the debt costs, under the rate of return regulatory framework.²⁵ On the question of equity issuance costs, US regulators have generally disallowed past float costs if the market value of shares exceeds book value on the grounds that investors have been rewarded with returns exceeding the cost of capital. With respect to SEOs, US regulators have requested proof that such costs are actually to be incurred.

In the UK, which operates under a similar CPI-X incentive regulation framework as Australia, the IPO costs have not been allowed on the grounds that they were incurred by the UK Government during privatisation. SEO costs would only be considered on a case-by-case basis.

²⁵ Debt costs are important, however, in the determination of the RAV, and specifically in determination of the "Allowance for Funds Used During Construction" (AFDUC), which was earlier referred to as "Interest During Construction" (IDC). See Leonard Goodman, (1998), *The Process of Ratemaking*, Public Utilities reports Inc., Vol. 2, p.808.

Chapter 4

Australian Regulatory Practice

4.1 Introduction

In this chapter we:

- Review past and current Australian regulatory practice with respect to debt and equity raising costs;
- Examine some appeals relating to debt raising costs; and,
- Review the guidelines for debt and equity raising costs presented in accounting standards and tax rules.

4.2 Australian regulatory practice — debt raising costs

A number of determinations by regulators since October 2002 have considered the costs of raising debt for regulated utilities. These decisions were not made in connection with IDC issues, but rather with issues relating to the re-financing of existing debt and raising of new debt capital to undertake capital expenditure in existing regulated assets. The decisions are summarised in Table 4.1, along with the allowance granted and the benchmark credit rating applied.

The Essential Services Commission (ESC) of Victoria made the first explicit allowance for the costs of issuing debt in its determination of gas access arrangements of October 2002. The Final Decision retained the position expressed in the draft that an annualised quantum of 5 basis points be added to the cost of debt for establishment expenses. While the ESC accepted the argument in favour of allowing for this cost, no distributors were able to provide estimates of its size. Instead, the ESC based its determination on an indicative figure provided by an electricity distributor in its 2001 Electricity Distribution Price Review.

Table 4.1

DETERMINATIONS IN RELATION TO DEBT-RAISING COSTS BY REGULATORS

Date	Regulator	Business	Allowance (basis points)	Benchmark Credit Rating
Jun 2004	IPART	NSW electricity distributors	12.5	BBB to BBB+
Mar 2004	ICRC	ActewAGL	12.5	BBB+
Jan 2004	ESCOSA*	ETSA Utilities	12.5	BBB+
Dec 2003	ACCC	Transend	10.5	A
Dec 2002	ACCC	SPI Powernet	10.5	A
Dec 2002	ACCC	ElectraNet	10.5	A
Nov 2002	ACCC	GasNet	25.0 [#]	BBB+
Oct 2002	ESC	VIC gas distributors	5.0	BBB+

Source: IPART (June 2004) p.226 * denotes preliminary position [#] This was the position determined in an appeal before the Australian Competition Tribunal on 23 Dec. 2003.

In revisions to access arrangements for GasNet's transmission network in November 2002, the Australian Competition and Consumer Commission explicitly recognised transaction costs associated with the raising of both debt and equity. The ACCC considered the assessment of debt-raising transaction costs to be an empirical matter and originally arrived at an allowance of 12.5 basis points based on information provided by a number of sources. This figure was essentially calculated from estimates provided by Westpac and verified against other sources. The ACCC's construction of 12.5 basis points based on Westpac advice for an assumed "corporate five year bond raising" is outlined in Table 4.2 below.

Table 4.2

DEBT RAISING COST ESTIMATES BY WESTPAC

Non-margin financing fee	Westpac estimate	Commission calculations (basis points per year)
Agency fee	\$5–10,000 per annum	0.3
Arranger fee	\$50,000 per debt issue	0.4
Credit rating fees	\$30–40,000 per annum	1.2
Dealer swap margin	5 basis points per annum	5
Legal fees	\$50,000 – \$100,000 per debt issue	0.6
Placement fee	5 basis points per annum	5
Total		12.5

Source: ACCC (13 November, 2002), Final Decision: GasNet access arrangement revisions for the Principal Transmission System, p.147.

The ACCC also considered front-end bank fees, published by *Basis Point* magazine, for three deals as shown in Table 4.3 below.

Table 4.3

FRONT-END BANK FEES

Facility	Type	Fees	Amount	Tenor (duration)	Basis Points p.a.
PaperlinX	Refinancing	20–40 bps front-end fee	\$300m	3–5 years	6 to 12 bps
Australian Magnesium	Project financing	75 to 100bps top level front end fee	\$890m	10 years	10 to 14 bps
TM Energy	Project financing	50 bps top level front end fee	\$225m	15 years	5 bps

Source: ACCC (13 November, 2002), p.148, based on data sourced from *Basis Point*, Issue 497, 7 September 2002 and Issue 498, 14 September 2002.

The ACCC concluded that:²⁶

While evidence tends to suggest that the transaction costs associated with bank issued debt may be higher than debt issued on capital markets, this is unclear given the absence of authoritative data and limited observations.

GasNet appealed the decision to the Australian Competition Tribunal (ACT) and that process resulted in a doubling of the initial allowance to 25 basis points per annum.²⁷ In effect, the ACCC conceded the 25 bppa allowance in that instance on the grounds that new information had surfaced in the course of the appeal. There has been no detailed empirical work to support this level of costs. Prior to the ACT's decision on GasNet's appeal, the Network Economics Consulting Group (NECG) made a submission to the ACCC in relation to its review of the Draft Statement of Principles for the Regulation of Transmission Revenues.²⁸ NECG made the following claim:²⁹

US data suggest that a premium for debt issuance equivalent to up to 50 basis points on the cost of debt may be appropriate. Debt can be issued either directly by private placement or through a public issue. The issuance costs of a direct placement are considerably lower than a public issue (as considered by the ACCC). However, the interest rates paid on private placements are usually higher than those on a public issue. So there is a trade-off when issuing debt by private placement – issuance costs are lower but interest rates are higher...Hays, Joenk and Melicher conducted an empirical study of the difference in rates between public and private debt issues and found that the yield to maturity on private placements was 0.46% higher than on similar public issues... Even if issuance costs of private placements were nil, which of course they are not, it would indicate issuance costs for private debt issues of about 0.50%.

In a recent report by NERA for ACTEWAGL, which was submitted to the ACT regulator, it was similarly stated that:³⁰

The decision of the Australian Competition Tribunal [in respect of GasNet] supports ActewAGL's submission that Australian regulators have understated the appropriate allowance for the cost of debt as US data suggests the allowance should be in the order of 50bp.

It is difficult to see why a single US empirical study by Hays, Joenk and Melicher published in 1979 would be relied upon as evidence.³¹ In the last chapter we reviewed a number of international studies of debt issuance costs. A comprehensive recent study conducted by Livingston and Zhou was quite clear in its conclusion that,

Underwriter fees for Rule 144A [private placement] issues are not significantly different from fees for publicly issued bonds.³²

²⁶ ACCC (13 November, 2002), *Final Decision: GasNet access arrangement revisions for the Principal Transmission System*, p. 148.

²⁷ See Application by GasNet Australia (Operations) Pty Ltd [2003] AcomPT 6 (23 December 2003). This decision can be interpreted as a more than doubling because the ACT also decided that the ACCC's proposed 5 year debt horizon period (to coincide with the length of the regulatory period) was not valid, and increased this to 10 years, in line with the longest government bond rate.

²⁸ NECG (November, 2003) *2003 Review of the Draft Statement of Principles for the Regulation of Transmission Revenues*, Submission to the ACCC for the electricity TNSPs from Network Economics Consulting Group.

²⁹ NECG (November, 2003), pp.64–65.

³⁰ NERA (February, 2004), *Estimating the Debt Margin for ACTEWAGL*, A Report for ActewAGL, p.8.

³¹ Hays, Joehnk and Melicgher (Fall 1979), "Determinants of Risk Premiums in the Public and Private Bond market", *Journal of Financial Research*, pp.143–152.

³² Livingston, Miles and Lei Zhou (Winter 2002), p. 5.

Other research by Lee, Lochhead, Ritter and Zhao found that the important distinction is between investment grade and non-investment grade debt, with the former showing total issue costs of around 8.5 bppa.³³ These and other similar recent research findings were not considered by NECG or NERA.

In quantifying the allowance for transaction costs incurred raising debt in subsequent determinations, the ACCC relied on the research it undertook for the GasNet decision. The resultant allowances of 10.5 basis points in each of the three subsequent cases were lower than the initial GasNet allowance in reflection of the higher benchmark credit rating applied to electricity transmission businesses. There is no empirical evidence to support this proposition. Indeed, the US research finds that debt issuance costs do not differ between higher and lower rated bonds as long as they are investment grade.

It is instructive to note the opinions on per annum transaction costs provided to ElectraNet in connection with its submission to the ACCC on its 2002 review of access arrangements. The opinions of the four banks are outlined in Table 4.4 below.³⁴ These opinions were based on a \$500–\$700 million MTN issue for 5 or 10 years. There is a significant degree of conformity in the views expressed about placement fees, legal and roadshow costs at a level of 8 bppa. Only the Westpac opinion included an allowance for swap costs. It is notable that:

- The Australian estimates are generally within the range of estimates found in US academic research into debt issuance transaction costs; and
- An allowance for swap costs was not specifically considered by the US academic studies as part of bond issue transaction costs.

Table 4.4

BANK OPINIONS ON MTN ISSUANCE COSTS FOR ELECTRANET, 2002

	ANZ	CBA	NAB	Westpac
Placement fees	5.0	5.0	7.0	
Legal and roadshow	3.0	3.0	1–1.5	
Total fees pre-swap costs	8.0	8.0	8.0–8.5	8.0
Swap costs				4.0
Total fees (bppa)	8.0	8.0	8.0–8.5	12.0

Source: ElectraNet SA (11 October, 2002)

More recently, the Essential Services Commission of South Australia (ESCOSA) reached a preliminary position (documented in January 2004) in its price review of electricity distribution, to add 12.5 basis points to ETSA Utilities' overall cost of debt to cover the cost of raising debt. This is the quantum that is being sought by ETSA Utilities. ESCOSA has accepted the proposal because it is consistent with allowances made by the ACCC where it has applied a BBB+ rated debt benchmark (the initial GasNet determination in November 2002).

³³ Lee, I., S. Lochhead, J. Ritter and Q. Zhao (1996).

³⁴ See ElectraNet SA (11 October, 2002), Letters to Mr. Geoff Teitzel, Executive Manager Finance from Mr. Damon Colbert (ANZ Investment Bank), Mr. Peter Harrington (CBA), Mr George Polites (NAB) and Ms. J. Brien (Westpac).

In March 2004, the Independent Competition and Regulatory Commission (ICRC) also accepted the proposal of ActewAGL for an allowance of debt issuance costs of 12.5 bppa, consistent with the ACCC's initial GasNet decision. Although the subsequent doubling of the ACCC allowance was acknowledged by ICRC, it retained the initial figure partly because it had aroused no discord from the draft report, and because it claimed the overall rate of return was relatively high.

The Independent Pricing and Regulatory Tribunal (IPART) of NSW similarly incorporated debt-raising costs of 12.5bppa in its review of electricity distribution pricing, which it decided in June 2004. The quantum appeared to be calculated with reference to determinations made by other jurisdictions. In this context, IPART held that 12.5 bppa was reasonable.

4.3 Australian regulatory practice — equity raising costs

Some of the determinations highlighted in the previous section also responded to stakeholder requests for inclusion of costs associated with raising equity. The outcomes of these considerations are highlighted in Table 4.5.

Table 4.5

AUSTRALIAN REGULATORY DETERMINATIONS ON EQUITY-RAISING COSTS

Date	Regulator	Business	Allowance
Jan 2004	ESCOSA*	ETSA Utilities	0.0
Dec 2003	ACCC	Transend	0.0
Dec 2002	ACCC	SPI Powernet	21.5 (VIC) 20.7 (SA)
Dec 2002	ACCC	ElectraNet	20.7
Nov 2002	ACCC	GasNet	22.4
Oct 2002	ESC	VIC gas distributors	0.0

Source: The Allen Consulting Group * denotes preliminary position

In the October 2002 decision alluded to above, the ESC rejected any allowance to distributors for the cost of raising equity. The ESC argued that while maintaining debt has periodic transaction costs (because it is usually rolled-over), equity is perpetual and incurs no such costs. The ESC then differentiated between equity raised before and after its previous determination in 1998. Transaction costs in relation to equity raised prior to 1998 were dismissed, as the ESC claimed these costs were reflected in asset valuations in the earlier review. The ESC also dismissed transaction costs for subsequent equity raisings because it claimed that the depreciation allowances and retained earnings of an efficient firm under the regulatory regime would most likely have met capital expenditure requirements, thereby obviating the need for new equity injections.

In contrast, the ACCC's decision on GasNet in November 2002 contained an allowance of 22.4 basis points for transaction costs associated with raising equity. The ACCC developed this figure by calculating the average cost of five recent Australia infrastructure equity offerings, amortised in perpetuity. In making this determination, the ACCC related its position to that of the ESC:

The Commission acknowledges that there are two different viewpoints with regard to the validity of providing an allowance for equity raising costs. One viewpoint is that the initial capital base of a regulated entity incorporates all capital costs, suggesting that no additional payment is required for equity-raising. A second perspective is that the initial capital base only measures the value of physical assets, and therefore does not compensate the service provider for raising expenses. The Commission considers that both models have merit, although on balance it considers that the second model better reflects the process used to determine the capital base for GasNet.

The ACCC maintained this stance on equity-raising costs in its determinations of revenue caps for the Victorian and South Australian electricity transmission network in December 2002. Equity fees in these instances were calculated using the same methodology and sample as in the GasNet determination. The differences in final allowances arose from the unique real vanilla WACC's applied to each entity in the calculations to amortise allowances in perpetuity.

However, in relation to its determination for the Tasmanian electricity transmission network in December 2003, the ACCC ran counter to the position established in these cases and rejected the inclusion of equity-raising costs. This final decision (which represented a reversal of the draft decision) was founded on the basis that Transend was not likely to incur any expenses raising equity during the regulatory period and that a benchmark return on equity was already provided (using the CAPM).

The preliminary ESCOSA position on electricity distribution similarly rejected equity-raising costs. ESCOSA has indicated that there will be no additional allowance for such costs, citing the ESC objections to its inclusion: that new equity injections were unlikely to be required for efficient businesses; and that equity-raising costs for existing equity were incorporated in earlier asset valuations.

There is no general agreement among Australian regulators on the issue of equity raising costs. The two state regulators that have considered such costs (ESC and ESCOSA) have dismissed them outright. In contrast, the ACCC has accepted equity-raising costs in three determinations. However, the ACCC's most recent determination rejecting these costs indicates that the matter is not settled.

4.4 Australian appeals regarding debt issuance costs

Two cases involving debt costs in addition to the debt margin have come before merit appeals in Australia. The first was an appeal by United Energy Limited to the Victoria Appeal Panel, and the second was an appeal by GasNet Limited to the Australian Competition Tribunal (ACT).

In the first case, United Energy was appealing the fact that the Office of the Regulator General (ORG) had not allowed it an amount to hedge its debt costs against inflation risk. In reply the ORG argued that risks must either be diversifiable, or non-diversifiable. If inflation risk was non-diversifiable, the ORG had provided for the risk in the allowed return through the beta factor. If inflation risk was diversifiable, it was not a risk that should be compensated by the ORG, since it could be eliminated by investors at no cost. The ORG's line of reasoning was upheld by the Appeal Panel, which also noted that there was "no evidence provided of extensive hedging taking place."³⁵

The second appeal was by GasNet Limited to the Australian Competition Tribunal (ACT), which submitted that the ACCC had erred in allowing 12.5 basis points per annum for debt raising costs. On 23 December 2003, the ACT announced that, "an allowance of 25 basis points per annum for debt raising costs above the debt margin be used in determining Total Revenue."³⁶ This was due to the ACCC conceding that new information had come to light in the course of the appeal suggesting that further analysis was required.

As discussed above, in developing its views on debt issuance costs for its GasNet decision, the ACCC had taken advice from Westpac and undertaken its own analysis. In the appeal to the ACT, GasNet's counsel submitted that the ACCC was in error to have ignored the actual debt issuance costs incurred by GasNet. It was also claimed by GasNet's counsel that the analysis was in error as the ACCC's data on debt-raising costs:³⁷

- Were not complete — they did not address all of the fees that would be incurred;
- Were predicated on a single debt issue — not a multiplicity of issues; and
- Addressed only capital markets type raising, not bank debt raising.

Further, it was submitted by counsel to GasNet, that if a benchmark approach were to be applied, any such benchmark should include an allowance for both capital market raisings and bank debt raisings.³⁸

It was argued by counsel for GasNet that the company should be permitted to pass its actual costs of debt raising, adjusted down to a 60:40 debt:equity ratio, through to consumers.³⁹ It was stated by counsel that while actual costs were higher,

Because GasNet's debt-equity ratio, was a bit above 60:40 [GasNet] pro-rated to get back to a 60:40 equivalent. But additionally, to get the funds we did, we credit wrapped.

³⁵ Statement of Reasons for Decision by Appeal Panel Under Regulation 15 of the Office of the Regulator-General (Appeals) Regulations 1996 in Relation to the Electricity Distribution Price Determination 2001-2005, p.25.

³⁶ *Application by GasNet Australia (Operations) Pty Ltd [2003] AcompT 6 (23 December 2003)* at par. 2 (a).

³⁷ Australian Competition Tribunal (15 August, 2003), *Application by GasNet Australia (Operations) Pty Ltd*, Transcript of Proceedings, P-137 par. 25-40.

³⁸ Australian Competition Tribunal (15 August, 2003), P-142 par. 20-25.

³⁹ Australian Competition Tribunal, *Application by GasNet Australia (Operations) Pty Ltd*, Hearing in Melbourne Thursday 14 August, 2003, P-127.

In fact, GasNet's actual debt of \$400 million at the time was 81% of the Regulated Asset Value (RAV), which is the relevant comparator, not the total assets (or book debt plus book equity) of GasNet in the balance sheet. Furthermore, to raise the issue of actual credit wrapping fees incurred, GasNet would need to provide evidence of whether the cost of credit-wrapped bonds plus the credit wrapping costs exceeded the benchmark debt margin allowed by the ACCC. However, even this would be an inappropriate comparison given that GasNet had far exceeded the benchmark gearing assumed by the ACCC in providing its debt margin, which is again dependent on the level of gearing measured against the RAV. This higher actual gearing compared with the gearing assumed by the regulator would have implications for the actual credit rating relative to the notional credit rating, and therefore the debt margin that can be achieved in the market.

Arguments put by counsel for GasNet to the ACT were predicated on empirically testable hypotheses, which were not tested by reference to wider market evidence in the course of the appeal. For example, questions asked included:

- Whether all cost categories likely to be associated with debt raisings had been considered by the ACCC when setting its 12.5 basis point benchmark?
- Whether utilities make more than one bond issue, and whether this makes a significant difference to debt issuance cost? In other words, whether there are significant economies of scale in debt issuance?
- In what proportions do infrastructure companies rely on bank debt relative to capital markets debt (bonds), and whether the former is more expensive to issue than the latter?

In its GasNet decision, the ACCC began by discussing advice from Macquarie Bank on project financing debt-issuance costs in the context of Greenfield gas pipeline projects. As is apparent from the summary of results discussed above, project finance costs should not have been raised in relation to the benchmark approach employed by the ACCC. This is because project financing relates specifically to the excluded activities (construction, project finance and takeovers (CPT)), which have no connection with the mere re-financing of existing debt. However, refinancing of existing debt is the central assumption of the regulatory benchmarking approach applied in Australia.

In the GasNet appeal this confusion over what the benchmark is gave rise to discussions of various costs that do not have a bearing on the re-financing of bonds. For example, financial modelling costs were raised, when these are not incurred in bond deals since they are marketed and sold on the basis of historical financial data.

4.5 Accounting standards and taxation requirements

Accounting standards

The relevant accounting standards are AASB 1036 and AAS 34 *Borrowing Costs*. The latter defines borrowing costs as the amortisation of ancillary costs incurred in connection with the arrangement of borrowings. However, accounting standards relate primarily to the allocation of cost and revenues and do not necessarily reflect economic principles of valuation. By contrast, economic regulation of utilities should be informed by economic principles.

Abstract 23, *Transaction Costs Arising on the Issue or Intended Issue of Equity Instruments*, covers the issue of equity and suggests that the transaction costs of raising equity should be recognised by the issuer as a reduction of the proceeds of the equity issue. From 2005, international accounting standards will be applied. The International Accounting Standards Board (IASB) Standing Issues Committee has issued SIC-17 stating the incremental external costs associated with an equity transaction are to be accounted for as a deduction from equity. By not taking such transaction costs through the Profit and Loss Statement on an amortised basis, this practice will cause a timing differential to the extent that it differs from the approach prescribed by the Australian tax legislation.

Taxation requirements

Under section 2525 of the *Income Tax Assessment Act 1997*, loan establishment fees for undertakings that aim to produce a profit are tax deductible. Such costs are deductible as amortised over the shorter of the period of the loan, or 5 years. Taking precedent from this legislation would raise the issue of what is the appropriate amortisation rate for regulatory purposes when the loan period is greater than 5 years. It could be argued that the appropriate amortisation period should be the average tenor of the benchmarked bond.

The issue of treatment of IPO costs under tax legislation was clarified by recent changes to the *Income Tax Assessment Act 1997*, which specifies at section 40-880, that from 30 June 2001 there is a tax deduction for costs incurred “to raise equity for its business, eg preparation and issue of a prospectus, underwriting and legal fees”.⁴⁰ Furthermore, 20% is deductible in the year in which expenditure was incurred and 20% in each of the following four years.

Again, there should not be a presumption that tax policy should determine regulatory practice. We consider that IPO and SEO transaction costs should, if deemed necessary by the regulator, be capitalised into the RAV and amortised over the life of the assets being financed by the capital raising. Hence, it would not be appropriate to follow either accounting standards or tax requirements. If there are tax implications that affect cash flows to investors, these could be addressed by the regulator by reference to cash flows.

4.6 Conclusions

Costs of raising debt were initially explicitly recognised by the ESC in October 2002. Since that time Australian regulators have consistently allowed their inclusion as a reasonable cost for regulated entities. Despite early fluctuations in their quantum, a consensus appears to be developing for an allowance of between 10.5 and 12.5 bppa. The origins of this ‘consensus’ level lie in an ACCC determination for GasNet, which was subsequently doubled to 25 bppa in the course of an appeal to the ACT, even though no strong empirical basis was provided to support such a level.

⁴⁰ CCH (30 June, 2003) *Australian Master Tax Guide: Mid Year Edition*, para. 14-065.

It will be noted that the benchmark level of 12.5 basis points per annum allowed to GasNet by the ACCC is higher than the 7.5–8.5 basis points for investment grade bonds issues in the US. However, the ACCC amortised costs over an assumed 5 year tenor, and the US estimates were obtained based on actual tenors in the vicinity of 10–12 years. To date there has been no published analysis of average bond tenor achieved by Australian infrastructure companies that would allow an appropriate comparison of these per annum cost estimates. It will also be noted that the ACCC's allowance of 12.5 basis points has often been presented to other Australian regulators as an appropriate benchmark by Australian regulated utilities.

Whilst the ACCC allowed 12.5 basis points to GasNet in November 2002, it referred to a submission by ElectraNet SA to it citing the opinions of the four major banks with respect to debt issuance costs. The four banks each agreed that 8–8.5 bppa was a reasonable estimate of issuance costs including placement, legal and roadshow costs, and only one bank proposed the addition of swap costs of four bppa. In its GasNet decision the ACCC included swap costs to raise its estimate to 12.5 bppa. Ignoring swap costs, the ACCC provided a higher allowance than most of the banks had proposed in the ElectraNet submission. However, it is not clear that the banks were including company credit rating fees in their estimates.

IPO costs have been allowed in only a few cases as a proxy for equity raising costs, and only by the ACCC. With respect to SEO costs, these have not as yet been considered by regulators, in Australia, since cases requiring an equity raising for normal capital expenditure has not arisen. Such cases are unlikely to arise in many regulated network assets because the incremental growth of the network tends not to exceed the capacity of debt financing combined with retained earnings. Hence, allowances for SEO costs will tend to be rare.

The discussion in this chapter has also highlighted the need to undertake an empirical analysis of capital raising costs, as well as the capital financing practices of utilities operating in the infrastructure sector.

Chapter 5

Domestic Corporate Banking and Bond Market

5.1 Introduction

In this chapter we examine the domestic corporate banking and bond markets and their financing of the infrastructure and regulated utilities sector. Based on the discussion in Chapter 3, in this and the next chapter we address the following questions:

- What are the cost categories likely to be associated with transaction costs for alternative forms of debt?
- Do utilities make more than one bond issue and does this make a significant difference to debt issuance cost?
- In what proportions do infrastructure companies rely on bank debt relative to capital markets (bonds), and what are the relative costs associated with their issuance?

The chapter begins with an analysis of discretionary elements common to debt raising fee structures. We examine the evidence regarding debt-raising costs for project finance deals to set a benchmark of costs for relatively high-risk ventures. Then we provide evidence relating to the domestic corporate banking and bond markets. At the conclusion of the chapter we develop a benchmark for domestic bank debt transaction costs based on available data sources.

5.2 Discretionary fees associated with debt and bond issues

In this section we consider a number of outlays that cannot be considered a part of the recoverable cost structure of regulated utilities because they are discretionary in nature and are applied by companies in the pursuit of higher returns.

Interest and currency swap fees

In its advice to the ACCC on “Issues for Debt and Equity Providers in Assessing Greenfields Gas Pipelines”, Macquarie Bank, in discussing project finance fees stated that:⁴¹

If the project has entered into a floating rate debt facility, it will need to swap its floating interest rate exposure into a fixed rate exposure. A dealer swap margin therefore needs to be added to the interest margin to obtain the fixed interest rate for the project. This margin will be determined by the volume and tenor of the swap arrangement, the credit of the project and prevailing market conditions.

⁴¹ Macquarie Bank (May 2002), *Issues for Debt and Equity Providers in Assessing Greenfields Gas Pipelines*, Report to the Australian Competition and Consumer Commission.

Based on the Macquarie paper and further advice from Westpac Institutional Bank, the ACCC provided a 5 basis points allowance for a “dealer swap margin” in the GasNet access arrangement.⁴² This 5 basis points for swap margin accounted for almost half of the total 12.5 basis points that the ACCC allowed to GasNet for debt issuance costs. The 12.5 basis points for debt issuance costs was then added by the ACCC to the debt margin estimated from CBA Spectrum. However, CBA Spectrum’s estimate of the fair debt margin over commonwealth bonds is based on trading in existing fixed interest bonds, which means that the ACCC was double-counting by adding a 5 basis points margin for swapping from floating to fixed rate.

Interest rate swaps and foreign exchange swaps have grown enormously in recent decades. Under an interest rate swap one party, which has issued debt at a fixed rate of interest, swaps its obligations with a second party, which has floating rate debt, with a commitment to pay BBSW plus a margin. When interest rate swaps first emerged as a financial instrument it was considered to be a response to capital market imperfections, where both parties would gain from comparative advantages in their respective niches in the market. That is, a swap would be NPV positive for both parties. Thus, Smith, Smithson and Wakeman wrote that,⁴³

Trade journals and market participants agree that the growth of the swaps market has resulted from the ability to receive “significant cost savings” by combining a bond issue with a swap. Using swaps, the firm ends up with lower borrowing costs than it could have obtained with a single transaction.

The authors went on to outline financial, regulatory, and tax arbitrage opportunities that could provide a stimulus to growth in swaps, but conclude that such opportunities should be eliminated over time. They also raised exposure management and “completing markets” (i.e. creating synthetic markets that do not physically exist) as additional motivations.

Swaps are now viewed more as tools for interest rate risk management and as a cheap way to restructure balance sheets. Some recent swap transactions that have been commented on in the financial press are provided below:

- Arden Realty has swapped floating interest rates on \$175 million in debt for fixed rates... “We are not in the business of forecasting where interest rates are going and we wanted to eliminate that risk and concentrate on our core business.” As a result of the swap, about 11% of the company’s debt is floating-rate compared to 22% previously.⁴⁴
- We found a significant positive correlation between earnings and interest rates and, therefore, decided we could take on more floating exposure. In an environment of increasing interest rates, our earnings are likely to increase also giving us some flexibility to add to our floating exposure if we choose.⁴⁵

⁴² ACCC (13 November, 2002), p.147.

⁴³ Smith, Clifford W., Charles W. Smithson and Lee Macdonald Wakeman (1988), “The Evolving Swaps Market”, in Joel Stern and Donald H. Chew Jr, *The Revolution in Corporate Finance*, p.256.

⁴⁴ (January 26, 2003), “Arden Locks In Fixed Rates” *Real Estate Finance and Investment*, p.1.

⁴⁵ (February, 2004), “Where does your interest lie?”, *Corporate Finance*, London, p.1

- For the past two years a strategy of staying in floating rates has been extremely beneficial to corporates. As a consequence, an average corporate might currently have 60% of its debt in floating rate instruments and 40% fixed rate, according to Neal Neilinger, global head of corporate debt syndicate at Dresdner Kleinwort Wasserstein... Neilinger notes, “The cost implications of switching all your floating–rate debt into fixed are substantial, as the yield curve is currently very steep.” Fixed rates for two–year dollar borrowing are currently 3%. The three–month rate dollar rate is 1.25%, but forward curves show that the market expects it to be 3.5% in one year and 4.8% in two years. So treasurers and CFOs find themselves in a bind: Should they lock into seemingly lower fixed rates or take their chances with floating rates in the future? “You may pay just 1% for one–year floating funding; five–year fixed rate funding could cost an additional 4% on top of that,” says Spinney. “You need to be able to justify that carry to a board of directors.”⁴⁶
- By doing fixed–rate bonds, you’re buying insurance, and there’s a cost with buying insurance,” says John Owen. JetBlue’s chief financial officer. In March the company sold \$431 million in floating–rate notes at rates initially about three percentage points below what JetBlue likely would have paid on fixed–rate notes. The savings could amount to \$10 million to \$15 million a year if rates remain steady.⁴⁷

Academics Bodie, Kane and Marcus, summarise as follows:⁴⁸

Consider a simple interest rate swap of LIBOR for a fixed rate. At the time the transaction is initiated, it has a zero net present value to both parties for the same reason that a futures contract has zero value at inception: Both are simply contracts to exchange cash in the future at terms established today that make both parties willing to enter into the deal. Even if one party were to back out of deal at this moment, it would not cost the counterparty anything, because another trader could be found to take its place.

The zero net present value to both parties at the commencement of a swap takes into account any transaction costs, such as a dealer swap margin, otherwise the transaction would not be NPV neutral. An analogous situation holds for foreign currency swaps.

The regulated utility’s expenditure on benchmarked operating costs or capital requires a return through revenues derived from sales. Without a revenue allowance being provided by the regulator, such expenditures will necessarily result in a loss to the utility’s capital providers. In contrast, the return on investment to expenditures made in arranging swap transactions comes from costs that are avoided or outcomes that are dependent on market movements in interest rates. These outcomes are independent of whether the regulator provides an allowance for swap transaction costs.

Credit wrapping fees

Credit wrapping involves the provision of a financial guarantee to the obligations made by the issuer of the bond. There are four major financial organisations (known as “monolines”), which are all US–based, providing this service:⁴⁹

- MBIA Insurance Corporation (MBIA);
- AMBAC Assurance Corporation (AMBAC);
- Financial Security Assurance (FSA); and
- Financial Guaranty Insurance Company (FGIC).

⁴⁶ Neville, Laurence (June, 2004), “When rates tighten up”, *Global Finance*, Vol. 18, p.10.

⁴⁷ Luchetti, Aaron (July 26, 2004), *Wall Street Journal*, p. C.1.

⁴⁸ Bodie, Zvi, Alex Kane and Alan J. Marcus (1999), *Investments*, Fourth Edition, p.738.

⁴⁹ See Bayley, Philip G. and Tano Pelosi (April, 2001), *Monolines deserve a good wrap*, National Australia Bank – Credit Research.

Of these four, MBIA and AMBAC have been by far the most consistent wrappers of infrastructure bonds in Australia. The monolines make a non-revokable guarantee to make good to bondholders, on the next business day following notification, the interest and principal that was not paid by the issuer. The monolines are rated AAA and through the payment of an annual fee, provide their own credit rating to the issue. Credit wrapping by non-financial entities in Australia that are credit enhanced has risen from zero in 1998 to around 40% of all issues in 2003. According to the Reserve Bank of Australia, credit wrapping incurs an up-front premium equivalent to 20–60 bppa, and is “generally more than half of the spread reduction that the borrower is likely to achieve by issuing a credit-wrapped bond rather than an unwrapped bond.”⁵⁰ Anecdotal evidence in the market suggests that a wrapping fee of 40 basis points is common.

Credit wrapping allows Australian utilities to raise the credit rating of their issue from BBB or A– up to AAA, and therefore to issue at a lower yield or spread, and to achieve longer tenors. Thus, there is a benefit from credit wrapping which offsets the fees charged, and utilities would not undertake the expense unless the outcome was expected to be at least NPV neutral. It is not appropriate for regulators to allow for such costs in debt issuance costs, and credit wrapping fees have not been allowed by any Australian regulator.

Advisory fees

In the advice provided to the ACCC by Macquarie Bank, advisory fees were included in project finance costs and these were described by the ACCC as “fees payable to a financial adviser when arranging debt”.⁵¹ These fees are discretionary when they relate to advisers to a client who wishes to employ these services to achieve a lower cost of debt. Through specialised knowledge of the market, a debt advisor may obtain 100 basis points up-front as a fee, but the advisor’s services would be expected to reduce the cost of debt by more than the advisory cost. Hence, such advisory fees should not be an allowable expense for regulatory purposes.

5.3 Project finance

Project financing developed in Australia during the resources boom of the 1970s and 1980s and has been used extensively in the construction of infrastructure assets and during the privatisation of government owned utilities during the 1990s. Project finance is non-recourse, being reliant on the future cash flows or assets of the project in question, rather than an established balance sheet. Projects are generally not rated, although some would have significantly lower risk than others due to regulated cash flows and stable demand.

⁵⁰ Davies, M. and L. Dixon (March, 2004), “Credit Quality in the Australian Non-Government Bond Market,” *Financial Stability Review*, p.49.

⁵¹ ACCC(13 November, 2002), p. 146.

Project finance fee structure

Project finance costs are not relevant for the notional capital structure of a regulated utility, since such an entity will be largely concerned with re-financing existing debt facilities and providing for modest growth resulting from organic growth in customers or usage levels. We provide an overview of project finance fees simply to illustrate the range of fees that may be charged in different circumstances. While project financings could involve swap costs and advisory fees being incurred, these have not been included in the list shown here, since they are largely discretionary.

- **Lead Manager/Arranger Fee:** This is a fee paid to the lead manager(s) for the task of managing the debt issue, and in the case of a large project, organising a syndicate of banks to take up parts of it. It could also include such services to the consortium as organising and taking the lead on due diligence and financial modelling. This component of the fee structure will generally not be revealed in public sources.⁵²
- **Agency Fee:** The agency fee is for services in providing a central point of contact to disseminate information to the syndicate members. This fee could also be wrapped into the Lead Manager/Arranger Fee considered above.
- **Arrangement Fee:** These fees are paid to the banks that are members of the syndicate arranged by the lead managers/arrangers. This fee could typically incorporate underwriting fees (if, as is not normally the case, the raising is not on a 'best efforts' basis) and syndication costs.
- **Syndication Costs:** These fees are to compensate the participants in the banking syndicate for their efforts in understanding the project and providing the funds. They are typically rolled into the arrangement fees outlined above.
- **Commitment Fee:** Most project finance deals include a construction element, or may involve provision of working capital. This requires funds to be made available over a period of months or years. The annual commitment fee, which is usually around 30%–40% of the margin fee, compensates the bank for making these funds available and is charged on the un-drawn component.
- **Legal and Expert Opinion Fees:** In project finance deals the legal and expert opinion fees can be substantial. This is because the undertaking has either not begun yet as it is a construction project, or has not been researched, because it was formerly privately or government owned.

The publication *Basis Point*, a subsidiary of Reuters, collects data on project finance deals in the Asia-Pacific region. We have accessed the *Basis Point* database for Australian project finance deals arranged since January 2001. There were 20 tranches that contained full data, which are summarised in Table 5.1 below. The 20 tranches raised \$6.9 billion in capital. The median (average) tranche size was \$237.6 million (\$341.9 million) and median (average) tenor was 6 years (7.3 years). The figures provided for maximum and minimum values indicate a significant range around these median (average) values.

⁵² Even sources such as *Basis Point* will not report this component of fees, since it appears only in the engagement letters signed by the lead manager/arranger with the client.

The average up-front underwriting/selling fee of 95.8 basis points is based on the highest level quoted by *Basis Point*, for the largest quoted take-up under the syndication. In terms of the list of fee components provided above, this would cover arrangement (including underwriting) and syndications costs and possibly an agency fee. The latter may also be part of the lead manager/arranger fee, which is not published by *Basis Point*. On the basis of the standard 20:20:60 split of management, underwriting and selling concession fees observed for IPOs, we added 20% in the final row for the management fees not revealed to *Basis Point*, to obtain a median (average) total fee per annum for project finance deals of 15.5 (20.6) bppa prior to legal and expert fees.⁵³

Table 5.1

PROJECT FINANCE: FEES AND DESCRIPTIVE STATISTICS, 2001–2004

20 tranches for \$6,8918.6 million	Mean	Median	Minimum	Maximum
Tranche size	\$340.9m	\$237.6m	\$49.9m	\$1,250.6m
Underwriting Fees	95.8bp	90bp	21bp	156bp
Tenor	7.3 years	6.0 years	3.0 years	15.0 years
Underwriting Fees p.a.	17.1bppa	12.9bppa	3.3bppa	46.7bppa
Underwriting plus Lead Management Fees p.a. ¹⁾	20.6bppa	15.5bppa	4bppa	56bppa
Legal and Expert Fees	1.7bppa	1.7bppa	0.5bppa	6.7bppa
Estimated Total Fee p.a.	22.3bppa	17.2bppa	4.5bppa	62.7bppa

Source: *Basis Point*; Note: 1) Estimated total fees include a 20% management fee above the fees disclosed to *Basis Point*.

The table does not include commitment fees, which ranged from 48 to 112.5 bppa. This was done in other order to preserve comparability with other debt and bond instruments discussed below, since those instruments often do not include such fees (and never do in the case of bonds). The average fee for project finance deal has a considerable range, reflecting the different credit risks and tenors associated with these deals. At one end of the spectrum is the Basslink, with an estimated 6.3 basis point p.a. and at the other is Australian Magnesium, with 61.7 basis point p.a.

The Basslink deal was exceptional, as it had strong credit backing based on National Grid's A rating, as guarantor of the project. In the case of Australian Magnesium, the security was a charge over all the assets and a 10-year take-or-pay agreement with the Ford Motor Company for 50% of production.⁵⁴ Hence, in addition to construction risk, the project was still significantly exposed to the vicissitudes of the world zinc market.

⁵³ Torstila, S. (Winter, 2001), "The distribution of fees within the IPO syndicate", *Financial Management*, Vol.30 pp.25–44.

⁵⁴ Basis Point (14 September, 2002), *basis point: The Asian debt markets newsletter*, Issue 498, p.6.

Anecdotal evidence indicates that project finance debt can be re-financed every three years for around 30 basis points in up-front costs. This would suggest on-going costs of 10 bppa, but would need to be considered in the interactive context of minimising total debt costs at the expense of higher transactions costs, or potentially lower transaction costs and margins that could be obtained through accessing the capital markets once a track record has been established and a credit rating has been obtained. Normally, a regulated infrastructure company would refinance into cheaper capital markets debt (bonds) as soon as possible.

The discussion of project finance debt is important in establishing an upper boundary for debt issuance fees in respect of a regulated utility, because these deals are exposed to much greater credit risks due to the assumption of construction, price and volume risks. Whilst there is a wide range of fees charged, it is striking to note that the average for the project finance category is less than 25 bppa, which was the allowance provided to GasNet as a result of its appeal to the Australian Competition Tribunal.⁵⁵ This is striking because the credit quality of a rated, regulated utility should be expected to be significantly greater than for project finance deals, making the underwriting, due diligence and selling tasks much easier. Hence, we should expect the transaction cost fee structure for a regulated utility refinancing debt to be significantly lower than for project finance deals.

5.4 Corporate debt

Term loans and revolving loans (“revolvers”) constitute a significant component of the long-term (greater than one year) debt structure of Australian utilities. Whilst revolvers are also established for a term, this facility incorporates an option to continue the line at minimal re-establishment costs. Many term loans also have such a facility for continuation. Within the *Basis Point* database, the purposes to which term loans and revolvers (including ‘lines of credit’) are applied include:

- Retirement of debt;
- Establishing an acquisition line (M&A);
- Capital expenditure;
- Working capital;
- Lease finance; and
- ‘Corporate purposes’.

These term loan and revolver components are considered in more detail below.

Corporate debt fee structure

The components of a fee structure for corporate debt is set out below. In many respects it is similar to the structure of a project finance deal.

⁵⁵ See section 4.4 above.

- **Lead Manager/Arranger Fee:** This is a fee paid to the lead manager(s) for the task of managing the debt issue, and in the case of a large project, organising a syndicate of banks to take up parts of it. It could also include such services to the consortium as organising and taking the lead on due diligence and financial modelling. This component of the fee structure will generally not be revealed in public sources.
- **Agency Fee:** The agency fee is for services in providing a central point of contact to disseminate information to the syndicate members. This fee could also be wrapped into the Lead Manager/Arranger Fee considered above.
- **Arrangement Fee:** These fees are paid to the banks that are members of the syndicate arranged by the lead managers/arrangers. This fee could typically incorporate underwriting fees (if, as is not normally the case, the raising is not on a 'best efforts' basis) and syndication costs.
- **Syndication Costs:** These fees are to compensate the participants in the banking syndicate for their efforts in understanding the project and providing the funds. They are typically rolled into the arrangement fees outlined above.
- **Commitment (Line) Fee:** As for project finance, a commitment or 'line' fee requires funds to be made available over a period of months or years. The annual commitment fee, which is usually around 30%–40% of the margin fee, compensates the bank for making these funds available and is charged on the un-drawn component.
- **Extension Fee:** Term debt and revolvers often have provision for extension of the term of the loan, which in the case of provision of new money could be slightly higher.
- **Cancellation Fee:** A cancellation fee may be charged if a facility has been approved and it is cancelled by the borrower.
- **Legal Fees:** Legal fees associated with documentation for bank debt can be expected to be significantly less than for project finance debt. A fee of \$50,000 to \$100,000 could be considered representative, with the latter case representing a more complex, larger transaction involving a syndicate of banks.

Table 5.2 provides summary statistics relating to term and revolving loans held by Australian infrastructure companies and reported in Bloomberg. The table contains data for 29 loans for a total of \$11 billion, with a median (average) tranche size of \$427.5 million (\$517.9 million) for term loans and \$135.0 million (\$280.7 million) for revolvers. The median (average) tenor of the term loans was 5.0 years (5.2 years), while for revolvers it was 3.0 years (3.1 years). However, by definition, the revolver loan is designed to provide the borrower with an option to roll-over the debt at a minimum cost.

Table 5.2

BANK DEBT HELD BY INFRASTRUCTURE COMPANIES: DESCRIPTIVE STATISTICS, 2004

	Term loan	Revolver loan
Number of loans	12	17
Total Debt	\$6,232.8m	\$4,771m
Average tranche size	\$517.9m	\$280.7m
Median tranche size	\$427.5m	\$135.0m
Average Tenor (years)	5.2	3.1
Median tenor (years)	5.0	3.0

Source: Bloomberg

5.5 Domestic bond market

In Australia the domestic bond market re-emerged following the stock market 'Crash' of 1987, partly because of the demand for non-equity securities in the wake of the market correction, and partly due to a reduction in the supply of government bonds when the Commonwealth government's budget moved into surplus.⁵⁶ Today the standard instrument is the domestic Medium Term Note (MTN) which is largely taken up by financial institutions and other sophisticated investors.

Corporate bonds are a natural financing facility for stable, regulated businesses, providing flexibility to structure the balance sheet to minimise the cost of capital over time. As capital intensive businesses the management of financial liabilities can add considerable value to such utilities. The case study outlined below, shows how bank loans established for an acquisition of Citipower, a regulated electricity distribution utility located in Melbourne, were re-structured to a mainly capital markets (bond) structure.

Case Study: CitiPower

Citipower supplies power to approximately 269,000 customers in Melbourne's CBD and inner suburbs. The company was purchased in August 2002 by a consortium comprising Cheung Kong Infrastructure Holdings Ltd (CKI) and Hong Kong Electric Holdings Ltd (HEH). Following the acquisition, the non-regulated retail business was sold, so that Citipower is now essentially a wholly regulated entity – a 'pure play' electricity distribution company.

As can be seen in Table 5.3, bridging loans (term debt) were employed by the purchasers of Citipower at the acquisition date. The planned restructure of debt, as presented in a research paper by the National Australia Bank (NAB), was to be mainly capital markets focussed.

⁵⁶ McGrath, Michael (1994), *Financial Institutions, Instruments and Markets in Australia*, McGraw-Hill, p.200-01.

As summarised by NAB:⁵⁷

Upon refinancing, Citipower expects to have \$200 million of fixed rate debt and \$875 million of floating rate debt (including the \$675 million proposed MTN issue). The company's liquidity will be strengthened through planned revolving standby lines totalling \$30 million for day to day working capital, management and other facilities totalling \$50 million as a safeguard against any unexpected restriction in funding capital expenditure projects over the next five years.

Table 5.3

CITIPOWER CAPITAL STRUCTURE — ON ACQUISITION, AS AT 31 DECEMBER 2002 AND PROPOSED (FOLLOWING REFINANCING)

At acquisition		As at 31 December, 2002		Proposed following refinancing	
MTN due 2007	\$400m	MTN due 2007	\$400m	MTN due 2007	\$400m
Bridge Loan CKI	\$412m	Subordinated Bridging Loan	\$825m	MTN Proposed	\$675m
Bridge Loan HEH	\$412m			Capital expenditure and working capital facilities	\$80m
Total Debt	\$1,225m	Total Debt	\$1,227m	Total Debt	\$1,075m
Equity CKI	\$228m	Equity CKI/HEH	\$457m	Equity CKI	\$293m
Equity HEH	\$280m			Equity HEH	\$293m
Total Equity	\$457m	Total Equity	\$457m	Total Equity	\$587m
Total Capital	\$1,681m	Total Capital	\$1,682m	Total Capital	\$1,662m

Source: Bush, Michael (February 2003), *Citipower*, National Australia Bank–Credit Research, p.32, sourced from Citipower.

This case study illustrates the fact that regulated utilities, with stable regulated cash flows and long-lived assets, will prefer over time to move to longer term capital markets debt (i.e. bonds). If they use term debt, revolvers or bridging loans, it will often be in the context of acquisitions or projects that lie outside the requirements of the notional regulated entity. Term or revolving debt could be used on a relatively minor scale for working capital and capital expenditure programs.

Applying a bond market benchmark

The Citipower capital-restructuring example illustrates that it was aimed at being almost fully capital markets funded. However, the more important issue, foreshadowed at the beginning of this chapter, is whether regulated infrastructure companies could be fully bond financed if they chose to. Furthermore, this question relates specifically to the notional regulated entity, based on its RAV.

⁵⁷ Bush, Michael (February 2003), *Citipower*, National Australia Bank–Credit Research, pp.32–33.

Restated, the question is whether, for example, a notionally 60% geared utility with a \$1 billion RAV, could finance \$600 million through capital markets. Some evidence is provided in Table 5.4 below for Citipower and GasNet. It shows that both these regulated utilities have financed significantly more than their notional benchmark debt levels with bonds. In Citipower's case the amount financed through bonds is twice as much as the notional debt allowance would be (i.e. 120% of RAV compared with 60% of RAV). In GasNet's case, bonds constitute 91% of the RAV compared with a notional regulatory gearing of 60%.

Table 5.4

NOTIONAL VS ACTUAL GEARING: CITIPOWER AND GASNET

	Citipower	GasNet
Regulated Asset Value (RAV)	\$894m	\$494m
X Notional 60% Gearing	X 60%	X 60%
Notional Debt	\$536m	\$296m
Actual Bonds Outstanding	\$1,075m	\$450m*
Bonds as % of RAV	120%	91%

Source: Bloomberg *Note: GasNet also has another \$120 million in term debt financing its Victorian operations and \$80 million in term debt funding its Telfer investment in Western Australia.

The case for applying a bond market benchmark for the debt margin and a bond market benchmark for debt raising costs does not rest on 100% of the notional debt component necessarily being raised in the bond market. However, these examples illustrate that it is a useful approximation, since utilities could, if they wished to, raise all their debt in the bond market. Indeed, these companies raised significantly more than their RAV debt component through bond issues.

Capital markets debt fee structure

The fee structure for domestic (and international) bonds is relatively simple. It is essentially the same structure that applies to equity issues, which require underwriting and marketing to purchasers (investors).

- **Management (Arrangement) Fee:** The management fee is paid to the lead manager/arranger to manage, or arrange, the entire bond issuance process on behalf of the client. It can also be known as a syndication fee. For this fee, the lead arranger:
 - Interacts with the company to obtain information;
 - Interacts with the selling agents in the syndicate; and,
 - Advises the client on strategy.
- **Underwriting Fee:** This component can be specified separately or expressed together with the lead manager/arranger fee.

- Traditionally, as in stockbroking, the underwriting fee represented a reward for risk taking. If the issue were not sold, the underwriter would take it up and guarantee proceeds to the issuer. With “best efforts” underwriting, a “bookbuild” is undertaken to determine the market-clearing price. The services provided by the lead manager/arranger in terms of a bookbuild are as follows:
 - Prepares an Information Memorandum (IM) for investors;
 - Prepares the sales pitch for investors;
 - Prepares presentation materials;
 - Undertakes the roadshow, delivering the presentation to investors;
 - Facilitates the investors’ due diligence process;
 - Oversees the bidding process by investors; and,
 - Communicates the clearing price for each tenor.

The underwriting fee will have some fixed cost elements, such as the writing of an IM. However, there will also be variable cost elements that rise with the difficulty of the deal. Larger transactions will require greater effort as there will be more parties involved in terms of selling agents and investors.

- *Selling (Placement or Agent) Fee:* The selling, placement or agent fee is a fee that is provided to selling agents in the syndicate to reward them for making placements, or sales, to their client bases. As the size of an issue increases there will be a need for more agents and approaches to more clients. Hence this component will be largely variable with the size of transaction. A larger transaction is made more difficult if it stretches the capacity of the market to supply funds within a given time frame.
- *Legal costs, roadshow:* Legal, roadshow and other ancillary costs are relatively minor within the Australian MTN market. Legal costs involve documentation. Market indications are that the costs are a maximum of \$75,000 per issue. Such costs will be higher in international MTN issues, as discussed in the following chapter.
- *Credit rating fees:* A credit rating is generally required for an issue in the domestic MTN market, although there is some appetite for unrated issues. A credit rating for the company costs around \$40,000 to \$50,000 per annum. A separate credit rating will need to be obtained for the specific bond issue. This is charged on an up-front basis on the size of the issue at between 2 and 5 basis points. The per annum charge for the company rating covers the updating of issue ratings since there is an automatic relationship between the two.

There are no modelling fees as MTNs are for established companies sold to investors on the basis of existing historical financial information.

Domestic bond market: descriptive statistics

Table 5.5 below displays summary data for 61 current domestic bonds issued by Australian infrastructure companies, which have been sourced from Bloomberg. The company issuers are listed in Appendix B. Of the total of 61 bonds totalling \$12.5 billion, 55 are domestic Medium Term Notes (MTN) and six are domestic CPI indexed bonds. The CPI indexed bonds are inflation protected. Only a few CPI indexed bond have been issued by an Australian infrastructure company (eg. Envestra) since 2000, as the current low levels of inflation have reduced market appetite for these bonds. The CPI-indexed bonds are approximately the same median/average size as domestic MTNs (\$175 million/\$200 million). In both cases around two-thirds of the bonds were credit wrapped.

Half of the CPI indexed bonds were not rated. This reflects the fact that these bonds were often issued as part of the consideration in privatisations, prior to the rating of the assets that were being purchased. Their credit quality was determined directly by bank due diligence. Over a third of the domestic MTNs were issued as fixed coupon, while two-thirds were floating rate.

Table 5.5

DOMESTIC BONDS ISSUED BY INFRASTRUCTURE COMPANIES, 2004

	Domestic MTN	Domestic CPI indexed
Number of bonds	55	6
Total Debt	\$11,317m	\$1,215m
Average issue size	\$206m	202.5m
Median issue size	\$175m	180m
Average tenor (years)	6.5	17.8
Median tenor (years)	7	15
Average credit rating	AA	50%AAA 50%NR
Credit wrapped	69.1%	66.7%
Fixed coupon (by value)	37.7%	100%

Source: Bloomberg

5.6 Benchmarking domestic corporate debt raising costs

In this section we examine the issue of calculating a benchmark for domestic bank loans. This is not for the purpose of proposing this debt component as the appropriate benchmark for regulated infrastructure companies, but rather to assist our understanding of the drivers determining debt issuance costs and the likely relative transaction costs of alternative forms of debt issuance. We have relied upon fee data for 2001–04 provided by *Basis Point* for Australian companies sourcing bank debt as term debt or revolvers.

Term loans

Term loans have a median (average) tenor of 5 years (5.2 years), and are often used as short-term solutions to provide flexibility in financing. Term loans are often used for construction, project finance or takeover situations (M&A). Regulated utilities have generally relied on term loans in purchase or takeover situations, but have utilised more capital markets debt for on-going operations (as we saw in the Citipower case study).

“M&A” refers to what *Basis Point* terms as debt requirements for a takeover, establishment of an “acquisition line” and funding for LBOs and MBOs. These are short term, higher risk activities compared with the on-going financing of an established business, and should therefore incur higher bank fees, other things being equal.

Table 5.6 displays descriptive statistics for Australian term loans. For all term loans the median (average) gross fees are a relatively high 16.0 (17.4) bppa. However, when the sample is de-composed by reason for debt raising, a clear picture emerges. That is, for companies rated BBB+ and above, which are not raising debt for construction, project finance or takeovers (CPT) the median (average) gross fee was 7.0 (6.5) bppa. Companies rated BBB+ and above, which raised term loans for application to CPT activities encountered median (average) gross fees of 10.7 (17.1) bppa, reflecting the higher risk nature of these activities and the greater bank due diligence costs associated with them.

Table 5.6

AUSTRALIAN TERM LOANS: GROSS FEES (BASIS POINTS P.A.) BBB+ AND ABOVE

	All Term Loans	BBB+ & above	BBB+ & above, not CPT	BBB+ & above, CPT	BBB+
Mean	17.4	11.8	6.5	17.1	7.6
Standard Error	2.0	3.9	1.5	7.4	2.2
Median	16.0	7.5	7.0	10.7	7.0
Standard Dev.	11.3	13.7	3.6	18.2	3.8
Minimum	1.0	1.0	1.0	5.6	4.2
Maximum	53.3	53.3	11.7	53.3	11.7
Number	31	12	6	6	3

Source: *Basis Point*

The gross fees paid by companies rated BBB and below are shown in Table 5.7. Here, the median (average) gross fees are significantly higher at 21.7 (21) bppa and CPT activity still adds a higher cost of 25.7 (22) bppa. In summary, fees faced by companies rated BBB or below are significantly higher than for higher rated companies, and this difference is even greater for CPT activity.

Table 5.7

AUSTRALIAN TERM LOANS: GROSS FEES (BASIS POINTS P.A.) BBB AND BELOW

	All Term Loans	BBB & below	BBB & below, not CPT	BBB & below, CPT
Mean	17.4	21.0	19.9	22.0
Standard Error	2.0	1.82	3.2	2.1
Median	16.0	21.7	21.7	25.7
Standard Deviation	11.3	7.8	9.6	6.5
Minimum	1.0	6.7	6.7	12.5
Maximum	53.3	40.0	40.0	28.3
Number	31	19	9	10

Source: *Basis Point***Revolver loans**

Revolver loans provide relatively short-term finance that can be extended as required at virtually no cost, as long as the credit position has not changed. The *Basis Point* database provides a sample of 30 cases of revolving loans for which fees are reported. In Tables 5.8 and 5.9, as for term loans, we find that the gross fees charged on revolving loans to companies with BBB+ or higher ratings was relatively low. The median (average) fee for non-CPT revolvers was 6.0 (7.6) bppa and for BBB+ companies fees were 5.8 (6.4) Bppa.

Table 5.8

AUSTRALIAN REVOLVER LOANS: GROSS FEES (BASIS POINTS P.A.) BBB+ AND ABOVE

	All Revolver Loans	BBB+ & above, not CPT	BBB+
Mean	12.7	7.6	6.4
Standard Error	1.7	1.0	1.4
Median	9.2	6.0	5.8
Standard Dev.	9.1	3.7	3.1
Minimum	3	3	3.5
Maximum	40	13.3	11.7
Number	29	15	5

Source: *Basis Point*

The upfront fees would reduce significantly on an annualised basis if the revolver were revolved. If the same terms are re-applied and the credit position had not changed, there would be no additional bank fee, and legal fees would be minor (in the order of \$5,000). Hence, one revolution of a revolver would bring the fees per annum down by almost half. Whether this was done would depend on the overall financing strategy of the company, including the relative cost of debt in the bank and capital markets sectors, which again highlights the interaction between transaction costs, debt margins and the overall finance strategy of the firm.

Table 5.9

AUSTRALIAN REVOLVER LOANS: GROSS FEES (BASIS POINTS P.A.) BBB AND BELOW

	All Revolver Loans	BBB & below	BBB & below, not CPT	BBB & below, CPT
Mean	12.7	18.3	16.3	23.3
Standard Error	1.7	2.7	3.4	3.3
Median	9.2	18.5	14.2	26.7
Standard Deviation	9.1	10.1	10.8	6.7
Minimum	3.0	5.5	5.5	13.3
Maximum	40.0	40.0	40.0	26.7
Number	29	14	10	4

Source: *Basis Point*

As for term loans, Table 5.9 shows that the median (average) gross fees charged to BBB and lower rated companies were significantly in excess of those for higher rated companies. Low rated companies that were not engaged in CPT activity experienced median (average) fees of 14.2 (16.3) bppa, whilst those engaged in CPT were charged 26.7 (23.3) bppa. Thus, the outcome was the same as in the case of term loans.

Summary of transaction costs for term and revolver loans

The total transaction costs for term and revolver loans are summarised in Table 5.10 below. We assume \$400 million debt and median tenors of 4 years for term debt and 3 years for revolver debt. The table is split by the purpose for the loan, which has a significant influence on the size of banking fees.

Other direct costs for term and revolver debt comprise:

- Company credit rating fees of \$50,000 per annum (although unrated companies could raise term and revolver debt); and
- Legal fees of \$75,000 (at the mid-point of what a normal fee of \$50,000 and the \$100,000 fee that could be charged in a larger, more complex transaction involving a banking syndicate).

Table 5.10

TERM AND REVOLVER DEBT TRANSACTION COST STRUCTURES (BPPA)

	Term Debt	Revolver Debt
Assumed size	\$400m	\$400m
Tenor	4 years	3 years
Debt Refinancing:		
Banking Fee	6.5 – 7.6	6.0
Other direct costs	1.7	1.9
Non CPT debt	8.2 – 9.3	7.9
Construction, Project Finance and Takeovers:		
CPT Banking Fee	17.1	23.3
Other direct costs	1.7	1.9
CPT transactions	18.8	25.2

Source: Bloomberg, *Basis Point*, Osborne Associates with ACG analysis.

The other direct fees translate to costs of 1.7 bppa for 4-year term loans to 1.9 bppa for 3-year revolving loans. Adding these costs to the median banking fees estimated earlier, results in the following conclusions on total transaction costs:

- **Debt refinancing:** For debt refinancing transactions for companies rated BBB+ or higher, which is the assumption of regulatory benchmarking, total transaction costs range from 7.9 bppa for revolver debt to 8.2–9.3 Bppa for term debt.
- **Construction, Project Finance and Takeovers:** For transactions involving construction, project finance and takeovers, which are not activities associated with an existing regulated utility, the total transaction costs of raising term and revolver debt are estimated at 18.8–25.2 bppa. However, it should be noted that these costs could be reduced significantly by an extension (or roll-over) if credit conditions do not deteriorate.

Australian domestic bond issues

There is a low degree of transparency in Australia with respect to fees charged by investment banks and professional firms to corporate bond issuers. Gross underwriting fees paid during bond issues are not disclosed, and these data are not available in sources such as *Basis Point* and Bloomberg.

The only published source of data that could be found was the Benchmarking Report prepared by Osborne Associates, which provides benchmarking on a wide variety of financial institutions and borrowing programs. This is the result of an on-line survey that is contributed to by the users of the survey. By contributing and discovering where they lie relative to the benchmark, which is the median or modal outcome. Participants can use the results of the survey to negotiate their fee structure with banks.

The Osborne Benchmarking 2003 Report No 5 provided a number of categories of costs for a Domestic Medium Term Note Program. For example, the range of management/lead manager fee was shown as \$2,500–\$15,000 per annum, while the underwriting fee is “NIL – \$300,000”. The benchmark for ratings charges was \$10,000 per annum, while the benchmarks for registry charges and paying charges were respectively, \$1,000 per annum and \$1 per \$1 million quarterly.

Whilst the Osborne benchmarking approach was designed for different applications, it provides corroborative evidence of fees and charges encountered by bond issuing companies. Osborne’s presentation of the underwriting fee as NIL to \$300,000 is however, not applicable in its current state to deriving the benchmark of fees required by the ACCC. Whilst it is possible that such a benchmark may be developed in future, the establishment of a current benchmark requires another database. ACG considers that the best currently available objective database of underwriting fees encountered by Australian bond-issuing firms can be derived from an examination of fee disclosures in Bloomberg. These data are examined in the following chapter.

5.7 Conclusions

Our analysis of debt characteristics and issuance fees charged for different types of debt shows a wide variability in fees (bppa) based primarily on risk and tenor. We have examined three sources of debt finance:

- **Project finance:** Data for 20 tranches sourced from Basis Point suggests a fee structure ranging from 4.5 bppa to 62.7 bppa, and a median of 17.2 bppa including legal and expert report fees. Transaction costs are relatively high for project finance debt because there are high risks involved in construction and in the acquisition of unrated assets. There are considerable bank due diligence costs in these circumstances.
- **Term and revolving debt facilities:** Using *Basis Point* data for 62 term and revolving debt loans we find that risk factors are the major drivers of per annum fees charged. Fees are higher for non-investment grade companies, and fees are much higher for companies requiring funds for construction projects, project finance or M&A (i.e. an acquisition line or for MBOs/LBOs). There are economies of scale in bank loans, since the bank undertakes one due diligence/credit analysis and then spreads this cost across the size of the loan. Companies incur median total transaction cost fees in a range of 7.9–9.3 bppa for these loans (which have a relatively short tenor of 3–4 years) if the funds are not used in higher risk activities. However, this over-estimates the long-term cost of such funds since a renewal or roll-over (in unchanged credit risk circumstances) would cost a small fraction of the initial fee.

- **Domestic bond market:** Using Bloomberg, ACG found that the median (average) sized domestic Medium Term Note (MTN) issued by Australian infrastructure companies is \$175 million (\$200 million) and the median (average) tenor is 7 years (6.5 years). Two thirds are 'credit wrapped' and over one third are fixed coupon. However, Australian regulated utilities and companies generally are accessing international bond markets at an unprecedented scale, particularly the Eurodollar market and the US private placement (144A and Reg.D) market. Less than half of the issues to these markets are credit wrapped and more than 90% are fixed coupon. In addition, the average size of deal is larger. Unlike project finance or many term/revolver facilities, the credit risk of rated utilities is well understood. In project finance deals there are significant bank due diligence costs, including financial modelling costs. These costs are not incurred in MTN issues as they are marketed and sold on the basis of historical results.

Since the domestic MTN market is used primarily to re-finance debt for existing assets, issuance costs for regulated utilities, with stable cash flows, that are re-financing their existing asset base can be expected to be relatively low. In particular, we should expect that the cost of re-financing debt in the capital market will be significantly below the cost of project finance debt, or the construction/M&A risk market which finances with term loans and revolvers (cost of 18.8 to 25.2 bppa). However, the domestic MTN market does not have the transparency of the international MTN market with respect to fees charged.

Chapter 6

International Bond Markets

6.1 Introduction

As discussed above, the Australian corporate bond market revived in the late 1980s and early 1990s. In 1995 the first Australian bond issue was made in the US private placement market. Since that time, numerous Australian issuers have approached the US and other international bond markets. As displayed in Table 6.1, compared with 2002, the second quarter of 2003 saw increasing dominance in new bond issues relative to loans, and increasing reliance on the international bond market relative to the domestic market.

Table 6.1

AUSTRALIAN DEBT VOLUME COMPARISON

	Q2 2002 (USDm)	Deals	Q2 2003 (USDm)	Deals
International bonds	9,053.3	22	14,430.1	36
Domestic bonds	9735.9	57	6,320.4	33
Loans	12,170.1	40	9,148.1	34
Market volume	30,959.3	119	29,898.6	103

Source: Thomson SDC Platinum

In recent years there have been numerous reasons, including favourable pricing,⁵⁸ for Australian corporates to approach international markets, and the US private placement market in particular.⁵⁹

In this chapter we investigate the characteristics of international bond market issues by Australian companies in general, and Australian infrastructure companies in particular. Since this is the market that reveals most data about the fee structures of bond deals, a benchmark of such cost is developed.

6.2 International bond market issues

Rule 144A was approved by the US Securities and Exchange Commission (SEC) in April 1990. It provided liquidity to large financial institutions, termed Qualified Institutional Buyers (QIB) who could now sell previously acquired private placements without having to hold them for two years.⁶⁰

⁵⁸ See Hogan, Roger, (September, 2003), "Aussie companies lock in bargain yields", *CFO Magazine*.

⁵⁹ Mark Garrick, Head of Debt Capital Markets at the National Australia Bank, made the following comments in a discussion reported by *Bond Club*, May 15, 2003: "Why wouldn't an Issuer go to this [US private placement] market — you would be crazy to stay in Australia."

⁶⁰ Qualified Institutional Buyers were defined as: 1) Insurance or investment companies owning or investing USD100 million in securities of non-affiliates 2) A bank or savings and loan association meeting criterion 1) and with an audited net worth of USD25 million or more 3) A broker or dealer that owns and invests at least USD10 million in securities of non-affiliates, or 4) An entity whose equity holders are all QIBs.

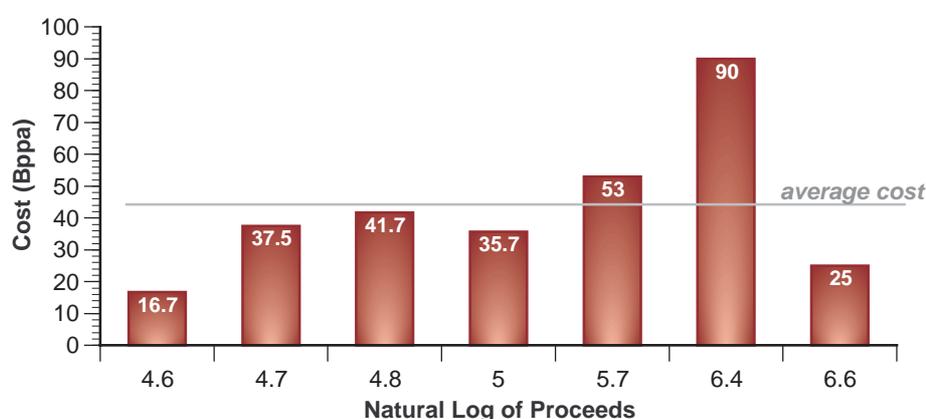
Since that time, Chaplinsky and Ramchand noted, foreign issuers have shifted their capital raising substantially from the public issue market to the US 144A private placement market, since “international firms gained access to institutional investors without having to meet the strict disclosure requirements of US public companies.”⁶¹ Australian companies also issue MTNs in the US under Regulation D (Reg.D).

Australian international convertible bond issues

We have excluded from the Bloomberg database seven Australian international convertible bond issues.⁶² As shown in Figure 6.1, the gross fees for these issues ranged from 16.7 to 90 bppa, with an average fee of 42.8 bppa. Tenor was measured as the time to the earliest conversion date.

Figure 6.1

AUSTRALIAN INTERNATIONAL CONVERTIBLE BOND ISSUES: GROSS FEES (BPPA)



Source: Bloomberg

The convertible bond issues had significantly higher issuance costs than straight bond issues. A major reason for this differential is the hybrid debt:equity nature of convertibles. Most of these issues were either not rated, or rated at BBB only. Given their greater risk and potential equity characteristics, such issues can be expected to have greater costs associated with issuance.

⁶¹ Chaplinsky, Susan and Latha Ramchand (June 2002), “The Impact of SEC Rule 144A on Corporate Debt Issuance by International Firms,” *Forthcoming, The Journal of Business*, p. 1.

⁶² No Australian infrastructure companies made issues of this nature

Australian Euro-dollar and US private placement market issues

Table 6.2 displays descriptive statistics for international bond issues made by 24 Australian infrastructure companies, which are current and listed in the Bloomberg database.⁶³ Only seven out of 32 bonds were Euro-dollar issues, compared with 25 private placements in the US. The Euro-dollar issues are sold in Europe but denominated in US dollars. The US private placements include both 144A issues and Regulation D (Reg. D) issues. On average, the indicated size of bond issues by Australian infrastructure firms were slightly larger in the Euro-dollar market (\$326 million) compared with the US private placement market (USD266 million), however the median value of US placements was \$282 million compared with \$228 million for Euro-dollar issues. In both markets the issue size was larger than the median (average) domestic MTN issue size of \$175 million (\$206 million). The median (average) tenor of the Euro-dollar and US private placement markets, was 10 years (10.6 years) and 10 years (11.1 years), which was also significantly higher than the 6–7 year tenor of domestic MTNs.

Table 6.2

INTERNATIONAL BONDS ISSUED BY INFRASTRUCTURE COMPANIES, 2004

	Euro-dollar bonds	US private placements
Number of bonds	7	25
Total Debt	\$2,282.3m	\$6,650.7m
Average issue size	\$326m	\$266m
Median issue size	\$228m	\$282m
Average tenor (years)	10.6	11.1
Median tenor (years)	10.0	10.0
Average credit rating	A+	A
Credit wrapped	42.9%	48%
Fixed coupon (by value)	91.2%	99.4%

Source: Bloomberg Note: Figures converted to AUD at time of issue

Almost half of the international bonds currently issued by Australian infrastructure companies are credit wrapped, and almost all of them have a fixed coupon. However, the average credit rating of the Euro-dollar issues is slightly higher (A+) than that for the US private placements (A).

6.3 Cost structure of US private placement issues

The cost structure in the US private placement market is the same as that applied in Australian MTN market. Gross underwriting fees charged by investment banks can be split into the following categories:

- Management Fee
- Underwriting Fee
- Selling Fee

⁶³ See Appendix B for a full list of the infrastructure companies included in this sample.

In addition to gross underwriting fees, issuers in the US face legal and ancillary costs associated with roadshows. In the case of the 144A market, a first time issuer could face legal fees in the order of \$860,000, but this falls significantly for successive bond issues. For example, Australian participants in the US Reg.D private placement market pay legal fees in the order of \$215,000. These fees are still higher than would be charged in the domestic MTN market (around \$75,000), and are presumably justified by a lower overall cost of debt (including margin and debt issuance costs), which would explain the current popularity of issues in this market.

6.4 Benchmarking international bond raising fees

Australian issues in the international bond markets provide the best source of objective data for tracking movements in the cost of bond issuance. A reasonable proportion of these issues reveal the total gross fees charged, and some provide a full breakdown of fees between management, underwriting and selling fees. These breakdowns indicate a 20:20:60 split between management, underwriting and selling costs respectively, a ratio that has been observed in other markets.⁶⁴

Bond Issue Transaction Cost Benchmark Methodology

The Allen Consulting Group has developed a methodology for estimating bond issue transaction costs. The methodology applies the following steps:

- ***Step 1: Select the data base*** — The data base is all Australian companies (excluding GBEs and banks) issuing bonds (excluding convertible bonds) with gross underwriting fees reported by Bloomberg.⁶⁵ In practice this means Australian international bond issues, or joint Australian market/international issues.
- ***Step 2: Group the bond issues by tenor and calculate bppa*** — All bond issues close to 5 and 10 year tenors are grouped separately in order to assess the influence of tenor on gross underwriting fees. Bppa is calculated for each issue by dividing the total gross fees (in basis points) by tenor (years to maturity).
- ***Step 3: Adjust the bppa for tenor to 5 or 10 years*** — The median tenor of international bond issues by Australian companies is calculated on a rolling 5–year basis, in line with the fee data, based on Bloomberg.
- ***Step 4: Calculate the median rolling 5 year bppa gross underwriting fee for each tenor group*** — The median rolling 5 year gross underwriting fee is calculated for each tenor group on the basis of the adjusted bppa fees.
- ***Step 5: Calculate the median tenor and issue size of bonds issued by Australian infrastructure companies in the domestic market*** — The median tenor of bonds issued in the Australian market is relevant to Australian conditions since the benchmark debt margin (eg. CBASpectrum) is a 10–year bond.

⁶⁴ See Torstila, S. (Winter, 2001), “The distribution of fees within the IPO syndicate”, *Financial Management*, Vol. 30, pp25–44.

⁶⁵ Banks are the largest and most frequent issuers of bonds. Only a few GBEs issued bonds. However, given the different nature and high frequency of bank issues relative to industrial companies, and the given the ownership structure of GBEs, these groups were not considered an appropriate proxy.

- **Step 6:** *Adjust the median gross underwriting cost (bppa) to the appropriate tenor assumption* — The rolling median gross underwriting fee relevant to the appropriate tenor assumption can be calculated by interpolation from the medians calculated for 5 and 10 year tenors. Since greater than 5 year tenors are often achieved through credit wrapping, and the 10 year tenor fees are lower than for 5 year tenor, assuming a 5 year tenor is a conservative approach.
- **Step 7:** *Assess legal and ancillary costs* — The assessment of legal and ancillary costs can best be undertaken through consultation with industry sources including investment bankers, lawyers, Standard & Poor's, and benchmark services such as Osborne Associates. While the cost of the firm's credit rating is a fixed cost that can be spread across a number of issues for larger utilities, other costs should be based on a standard (or median) assumed issue size.
- **Step 8:** *Calculate the number of issues required* — To refinance all the bonds in the utility's notional capital structure, the number of notional issues needs to be determined. This is determined by dividing the required debt amount (i.e. RAV multiplied by the debt proportion of the capital structure) by the assumed standard issue size.
- **Step 9:** *Calculate the total debt issuance transaction cost in bppa* — Based on a given tenor assumption (say 5 years) and number of issues total ancillary costs per annum, divided by the total debt raised, multiplied by 10,000 (to convert to basis points) will yield the total ancillary costs in bppa. This cost is added to the calculated underwriting cost to give the total transaction cost in bppa to be applied to the total notional debt amount.

Gross underwriting fees: Descriptive statistics

Summary statistics relating to the gross underwriting fees experienced by Australian firms issuing bonds internationally are displayed in Table 6.3 below. Over the period 1996 to 2004 there were 30 bond issues for which gross underwriting fee data was disclosed to Bloomberg. The overall median (average) fee was 5.0 (5.6) bppa, with a minimum of 2.6 bppa and maximum of 12.5 bppa.

Table 6.3

AUSTRALIAN INTERNATIONAL BOND ISSUES: DESCRIPTIVE STATISTICS

N=30	Gross Fees (Bppa)	Tenor (years)	Size of Issue (\$ million)
Mean	5.6	8.6	506.4
Standard Error	0.4	0.6	116.2
Median	5.0	10.0	368.2
Standard Deviation	2.2	3.5	636.5
Minimum	2.6	4.0	20.0
Maximum	12.5	20.0	3,305.0

Source: Bloomberg

Table 6.4 investigates further characteristics of these international issues. First, it will be seen that the median fee of 6.5 bppa prior to 2001 fell to 4.0 bppa in the period after 2001. Secondly, the median fee was lower for issues of less than \$400 million (4.8 bppa) than for issues above \$400 million (5.5 bppa). Finally, the median fee was higher for 5-year tenor (5 bppa) than for 10 year tenor. Thus, the lowest gross underwriting fees may be expected to be incurred for bonds with a longer maturity, and smaller issue size. On the other hand, internal cost of arranging bond issues might be expected to be greater if more small bond issues are made.

Table 6.4

AUSTRALIAN INTERNATIONAL BONDS: GROSS FEES (BPPA) VS. TIME, ISSUE SIZE AND TENOR

	Time of Issue		Size of Issue		Tenor of Issue	
	Pre-2001	Post-2001	<AUD 400m	>AUD 400m	5 Year	10 Year
Mean	6.6	4.4	5.6	5.6	5.8	5.4
Standard Error	0.6	0.3	0.6	0.6	0.7	0.5
Median	6.5	4.0	4.8	5.5	5.0	4.6
Standard Deviation	2.4	1.2	2.4	2.0	2.7	1.9
Minimum	3.4	2.6	2.6	3.3	2.6	3.3
Maximum	12.5	7	12.5	9.0	12.5	9.0
Number	16	14	18	12	13	17

Source: Bloomberg

Applying the methodology outlined above, a rolling 5-year median for 5-year tenor bonds suggests a gross underwriting fee of 5.5 bppa. The calculation of the 5.5 bppa median for 5-year bonds is provided at Appendix A. This rolling 5-year median could be viewed as too high given that the median fee post-2001 was only 4.0 bppa. However, it is only slightly lower than the 5.7 bppa estimated by the ACCC in its GasNet and electricity TNSP decisions, and is within the range of fees indicated by several Australian banks and submitted to the ACCC in the course of its investigation regarding ElectraNet SA in 2002.⁶⁶ Based on all the available evidence then, it would appear that adopting a gross underwriting fee benchmark of 5.5 bppa is an appropriate reflection of the likely charges faced by Australian infrastructure companies issuing bonds.

To this 5.5 bppa for gross underwriting fees must be added:

- Legal and roadshow expenses of a maximum of \$100,000 per issue (commonly \$75,000 to \$100,000).
- Credit rating fees of \$40,000–50,000 for the firm (ratings for separate issues are made in order to win some advantage in the debt margin or elsewhere, therefore they should not be included).

⁶⁶ ACCC (13 November, 2003), p. 147.

- Credit rating fees for each issue in the range of 2–5 basis points up–front (say 3.5 basis points for the median size issue).
- Registry charges, issue and paying. Fees of \$1,000 per annum and \$1 per \$1 million of bond value paid quarterly.⁶⁷

Table 6.5 displays how, applying the benchmark approach proposed by ACG, the bppa transaction cost varies with the overall size of debt and number of issues. The bppa cost reduces from 10.4 bppa with one issue of \$175 million, to 8.0 bppa for 6 issues raising \$1.05 billion. The reduction in debt–raising transaction cost with more debt raised stems from the spreading of assumed company credit rating costs of \$50,000 per annum. ACG has applied the median Australian MTN issue size of \$175 million to determine the number of notional issues. Under the benchmarking approach suggested, these parameters would be revisited at 5–year intervals.

Table 6.5

STANDARD BENCHMARK FOR MTN ISSUES (BPPA)

Fee	Explanation/ sources	1 Issue	2 Issues	4 Issues	6 Issues
Amount raised	Multiples of median MTN issue size	\$175m	\$350m	\$700m	\$1,050m
1) Gross Underwriting Fees	Bloomberg for Aust. Intl. issues, tenor adjusted.	5.50	5.50	5.50	5.50
2) Legal and Roadshow	\$75K – \$100K: Industry sources	1.14	1.14	1.14	1.14
3) Company credit rating	\$30K – \$50K: S&P Ratings	2.86	1.43	0.71	0.48
4) Issue credit rating	3.5 (2–5) bps up–front: S&P Ratings	0.70	0.70	0.70	0.70
5) Registry fees	3K per issue Osborne Assoc.	0.17	0.17	0.17	0.17
6) Paying fees	\$1/\$1m quarterly Osborne Assoc.	0.01	0.01	0.01	0.01
Totals	Basis points p.a.	10.4	9.0	8.2	8.0

Sources: Bloomberg, industry sources, S&P Ratings, Osborne Associates

ACG considers that the benchmark debt–raising transaction cost presented in Table 6.5 should not be adjusted for credit rating, since empirical evidence does not support such an adjustment. In other words, at the standard issue size (\$175 million) and tenor (5 years) assumed in the benchmark, bonds rated at investment grade are a commodity, with risk associated with different credit ratings being compensated for in the debt margin.

⁶⁷

Sourced from Osborne Benchmarking 2003, Report No. 5.

6.5 Conclusions

ACG's analysis indicates that the only objective source of data for gross underwriting fees charged by investment banks in bond issues by Australian companies is that provided by the Bloomberg service. These data are only available for Australian companies accessing the Euro-dollar and US private placement markets or for Australian MTN issues jointly sold in Australia and these international markets. Given the extent of international competition in bond markets and the fact that these markets should equilibrate over time, ACG believes that this benchmark is a reasonable proxy for Australian bond underwriting fees.

The Allen Consulting Group's estimate of total bond issuance transaction costs on a basis points per annum (bpps) basis, takes account of:

- Bloomberg data relating to gross underwriting fees paid by Australian companies issuing bonds internationally.
- An estimate of other direct costs associated with issuing bonds based on discussions with:
 - Investment bankers and analysts;
 - The legal profession;
 - S&P Ratings; and
 - Information obtained from Osborne Associates' Benchmarking Report No. 5, 2003.
- Estimates of underwriting fees and other direct costs made by Australian banks.

The resulting benchmark of 5.5 bpps is based on a 5-year bond maturity assumption. This is slightly lower than the median tenor of 7 years achieved in domestic bond issues by Australian infrastructure firms, but this tenor is also reflective of the fact that two-thirds of these bonds were credit wrapped. The addition of other direct costs, with an assumption that the average cost of company credit rating fees falls for larger companies, results in a range of transaction costs from 10.4 bpps for one bond issue of \$175 million, to 8.0 bpps for 6 issues amounting to \$1,050 million.

Chapter 7

Initial Public Offerings (IPOs)

7.1 Introduction

In this chapter we examine the cost of Initial Public Offerings as a proxy for transaction costs of raising initial equity. We begin by discussing the issue of whether it is valid for regulators to include IPO costs as amounts recoverable from the customers of regulated utilities. Next we examine the Australian empirical evidence relating to IPO costs, and finally we give consideration to the manner in which such costs may be recovered.

7.2 Allowance for initial equity raising transaction costs

It was noted in Chapter 4 that the ACCC had allowed a return of initial equity raising costs to several electricity transmission network service providers (TNSPs) during 2002. This allowance was provided based on a current cost (at the time of the access arrangement) of undertaking an IPO. The IPO cost, as a percentage of proceeds, was then applied to the equity portion of the RAV and amortised in perpetuity at the WACC. In this section we investigate whether such an allowance should be recovered from customers.

With respect to initial equity raising transaction costs, a fundamental point turns on whether the RAV of the regulated utility has already been determined, and in the case of privately owned utilities, whether an RAV was established prior to privatisation.

Established Regulated Asset Value

If an RAV has already been established for the regulated utility there is no case for now including an allowance for IPO costs. It must be assumed that such costs have already been included in the RAV, either explicitly or implicitly. For example, privatised entities have been sold either through:

- *IPOs* — in which case, in most instances, the investors knew the RAV when subscribing for shares;
- *Trade sales* — where assets are sold to trade buyers.

We have already seen that the issue of equity raising costs has not arisen very often in the UK, and has not been allowed as a cost on the grounds that the UK government incurred IPO costs during the privatisation process. For government owned entities there is similarly no reason to allow initial equity raising transaction costs if there is an established RAV, as they can be considered to be implicitly or explicitly incorporated into it.

The issue is not whether the utility today is a publicly listed or privately owned, or a government owned business. A company representing the same group of physical assets could have moved through all three of these ownership categories. However, the transaction costs, including IPO costs (as a proxy) and advisers' fees associated with each of these ownership structures are not relevant to the RAV. They cannot be added to the RAV, or customers would be subsidising what is the pursuit of private (or public) gain through the achievement of synergies or government policy objectives. Thus, the issue is whether an RAV has already been established.

New companies or companies without an RAV

If an RAV has not been established and the regulator is approaching the issue of establishing an RAV for the first time, there is a strong case for including an allowance for IPO costs. In those cases, in the process of developing an Optimised Replacement Cost (ORC), and from it a Depreciated Optimised Replacement Cost (DORC), capital raising transaction costs should be incorporated, and depreciated over the life of the assets. An issue that follows from this is whether an IPO should be the benchmark for equity raising costs, or some other approach, such as a private placement. Theory does not provide guidance on this issue.

The arguments for reliance on IPO costs as the equity raising costs benchmark are as follows:

- IPOs are a common source of equity capital raising for new companies.
- Constructing an objective, credible and verifiable benchmark for IPOs is much more feasible than for other forms of private capital raising. Information memorandums for private capital raisings are seldom made public, and it would be difficult to establish a benchmark on the basis of those that do.

ACG considers that IPO costs that are appropriate to a regulated utility are a valid objective benchmark of equity raising costs.

An alternative viewpoint

An alternative viewpoint argues that governments, companies and individuals undertake IPOs to gain an advantage compared with the current ownership structure. They do so because the entity is worth more in the listed state than in an unlisted state. In other words, this is a commercial decision that will be undertaken when the expected benefit outweighs the expected cost. Hence, there is a prima facie case against compensation for such costs.

Whilst there is merit to this argument, ACG is supportive of the view that, in theory, the establishment of an RAV requires that all costs associated with construction of the hypothetical optimised facility must be capitalised. These construction costs will need to be funded, and an IPO is an appropriate proxy for the transaction costs associated with the equity component of that funding.

Amortisation approach

The ACCC's approach has been to calculate IPO costs in perpetuity using a WACC.⁶⁸ The IPO costs are then allowed for in the cash flows of the business, rather than in an adjustment to the WACC.

Some finance textbooks gross-up the cost of capital for flotation costs, however, others argue that this is incorrect because "the true market-determined opportunity cost is unaffected by the flotation costs of a particular firm".⁶⁹ The latter view grosses up the investment outlay for flotation costs but does not alter the WACC. ACG agrees with the latter view, which implies that IPO costs, if it is appropriate to do so, should be added to the RAV, and depreciated along with other assets.

The suggested approach takes the view that the IPO costs were incurred in order to finance the construction of the original assets and should be depreciated along with them. Although this provides a faster recovery of costs than the perpetuity approach, in NPV terms there is no difference, and it is administratively quicker and less costly.

7.3 IPO cost and fee structure

The nature of IPO costs and fee structures has changed in recent years due to the disappearance of the traditional underwriting and its replacement by the US-style of 'best endeavours.' Under traditional underwriting the underwriter would guarantee a sum to the client by purchasing all shares remaining after the close of a public issue. Under the book-building approach, a market-clearing price is established through the running of a 'book' of bids for allocations of shares at various prices. The underwriter becomes the 'bookrunner' who aggregates the bids and announces the market-clearing price so determined. It is a process that is designed to extract information from bidders.⁷⁰

The structure of fees seen in a typical float include:

- **Management Fee** — This fee is paid to the lead manager of the float to manage the overall listing process. Aspects of this task include:
 - Overall management of the listing process;
 - Managing the investor education program;
 - Management of the book-building process including the establishment of appropriate incentives;
 - Preparation of the Prospectus;
 - Finalising and negotiating arrangements with other brokers; and
 - Advice on marketing and logistics.

⁶⁸ This is an objection put forward by NECG, which argues that the IPO cost should be amortised over the life of the assets using the cost of equity, however, this ignores the fact that a stable listed infrastructure business could completely replace its assets through retained earnings over time. See NECG (November 2003), *2003 Review of the Draft Statement of Principles for the Regulation of Transmission Revenues*, Submission to the ACCC for the electricity TNSPs from Network Economics Consulting Group.

⁶⁹ Copeland, T. E. and J.F. Weston (1988), *Financial Theory and Corporate Policy*, pp. 534–536.

⁷⁰ For analysis of the bookbuilding process see Cornelli, Francesca and David Goldreich, (August 2003), "Bookbuilding: How Informative is the Order Book?", *Journal of Finance*, Vol. LVIII, No. 4, pp.1415–1443.

- ***Underwriting Fee*** — The underwriting fee was formerly paid to brokers to take up any unsold shares at the set price. Now the fee relates to services and access provided by the lead manager(s). It involves:
 - Preparation of research reports;
 - Arrangement of seminars and analyst briefings;
 - Managing the book–building process; and
 - Providing access to the underwriter’s client base.
- ***Selling Fees*** — Selling fees are paid to other brokers who are engaged by the lead manager to assist with distribution and bidding to the book. These fees can be divided into:
 - A firm allocation fee to brokers who take up shares in the issue for distribution to their client base; and
 - A handling fee that is paid to brokers to act as an incentive to encourage them to bid to the book above their firm allocation in order to promote competition against institutional bids.
- ***Legal and Accounting Fees*** — Legal and accounting fees are paid to professional advisers who undertake legal and accounting vendor due diligence for inclusion in the prospectus. For example, an Investigating Accountant’s Report will be required.
- ***Other Consulting Fees*** — Other consulting fees can include expert reports on specific topics for inclusion in the prospectus, or assistance to the company in preparing its structure or operations for a float.
- ***Other Out of Pockets*** — Fees in this category include costs for the production of promotional material and roadshow costs.

7.4 Determinants of IPO fee structure

The main determinants of IPO costs are likely to be the following:

- ***Size of proceeds*** — Since some economies of scale are expected through the spreading of fixed costs, larger issues should have a lower average cost. However, relative to a given market, at some point larger issues may be harder to sell, requiring more effort and a rising variable cost. For example, international tranches will be required. Hence, the cost curve may be expected to fall at first and then to rise.
- ***Risk of the issue*** — A more risky stock measured relative to its industry and the economy will be more difficult to market. It will be more difficult to determine the appropriate price and there may be reputation effects to be considered. Again, a riskier issue might have a limited appetite within the domestic market, requiring marketing to international investors. On the other hand, a utility company with stable regulated cash flows will be easier to price.

- *Complexity of the issue* — If the company has complex or poorly understood operations there will be greater direct costs in due diligence, research and marketing. For example, independent experts reports may need to be commissioned.
- *Float preparedness of the company* — Certain companies may not be in a position to progress to a listed status due to internal processes or structure. Preparing the company can take time and consulting resources. This is generally a significant part of the cost of privatisation floats.

Taking account of the factors listed above, we should therefore expect to see considerable variability in listing costs as a percentage of proceeds. In Table 7.1 we find this to be the case for 22 Australian IPOs since 2001.

Table 7.1

AUSTRALIA: LARGE COMPANY IPO COSTS, 2001–2004

Company	Year	Expected proceeds (\$m)	Total Estimated Cost (\$m)	Cost as % proceeds
Austereo Group	2001	397.0	17.0	4.3
Transfield Services	2001	151.3	14.0	9.3
Globe International	2001	74.0	6.6	8.9
Australian Wheat Board	2001	100.0	6.2	6.2
GasNet Australia	2001	260.0	15.0	5.8
Macquarie Airports	2002	1000.0	26.1	2.6
Prime Infrastructure	2002	284.5	11.4	4.0
Macquarie Prologis Trust	2002	375.2	16.5	4.4
Macquarie Communications	2002	310.0	13.0	4.2
Southern Cross FLIERS Trust	2002	600.0	26.5	4.4
Abacus Property Group	2002	40.7	2.3	5.5
Worley Group	2002	95.7	6.8	7.1
Salmat	2002	76.0	4.0	5.3
Valad Property	2002	210.0	7.2	3.4
JB HiFi	2003	125.0	5.3	4.2
Australian Leisure and Hospitality	2003	881.3	37.4	4.2
Repco Corporation	2003	404.9	25.4	6.3
Codan	2003	30.0	2.1	7.0
Multiplex Group	2003	1,184.6	43.9	3.7
Pacific Brands	2004	1257.5	52.0	4.1
Zinifex	2004	1,239.6	54.0	4.4
Just Group	2004	500.0	25.0	5.0
Average		436.2	19.0	5.2
Median		297.3	14.5	4.4

Source: Company prospectuses

Median (average) expected proceeds for the sample were \$297.3 million (\$436.2 million). The median (average) total cost (including management, underwriting, selling and other direct costs) as a percentage of expected proceeds was 4.4% (5.2%), or around \$14.5 million (\$19 million).

Of the median (average) \$14.5 million (\$19 million) in direct listing costs, \$12.8 million (\$16.5 million) (4.3% (3.8%) of expected proceeds) was accounted for by management, underwriting and selling fees. The other \$1.8 million (\$2.2 million) was split almost evenly between legal and accounting fees and other consulting fees. Median (average), legal fees were \$450,000 (\$700,000) and accounting fees were \$500,000 (\$530,000).

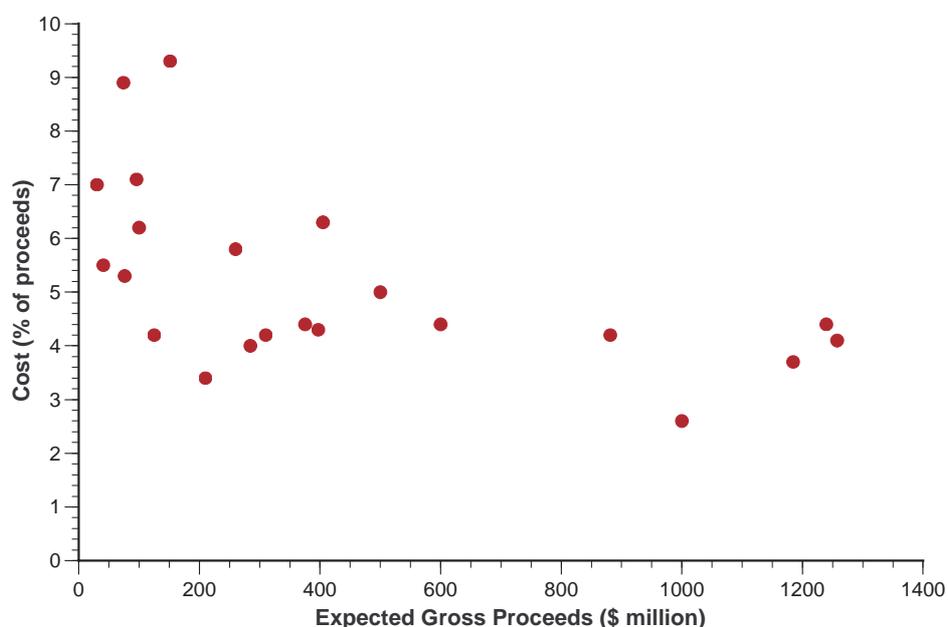
7.5 Benchmarking IPO costs

The difficulty with developing a benchmark of listing costs is that there may be few listings of similar regulated infrastructure companies near the time that such an estimate is required. On the other hand, we expect that there would be relatively few cases in which an IPO benchmark would be required. The only valid case would be when an RAV value has not yet been established.

At the time an IPO takes place there is by definition little public/market information on the assets. Hence, there are few objective variables, apart from expected proceeds and fees, that can be relied upon. The general relationship between total cost, as a percentage of expected proceeds, and size of expected proceeds can be seen in Figure 7.1 below.

Figure 7.1

AUSTRALIA: COST OF INITIAL PUBLIC OFFERINGS, 2001–2004



Source: Company prospectuses

This looks as if economies of scale are important, however it is best to think of every observation as reflecting a position on its own average cost curve. A reasonable number of companies could be experiencing increasing average costs, i.e. diseconomies of scale, due to rising variable costs. This, however, would be difficult to demonstrate without further valid discriminating variables.

ACG has examined the ACCC's approach to benchmarking IPO costs, and we believe it to be appropriate. In order to control for the potential impact of different risk exposures in various industries, the ACCC has drawn its benchmark IPO companies from the infrastructure sector. However, we have excluded Envestra from the sample since this was a rights issue, and therefore an SEO rather than an IPO.

Table 7.2

EQUITY RAISING COSTS: ACCC ANALYSIS UPDATED

Company	Date of offer	Details of offer	Raising costs (\$m)	Total Offer (\$m)	Fees as % of Total Offer
United Energy	March 1998	IPO–stapled securities	20.0	968.2	2.1
Envestra	July 1999	Rights, conv. notes placement	10.1	310	3.26
Australlian Pipeline Trust	May 2000	IPO–units	12	488	2.5
GasNet	October 2001	IPO–units	15	260.16	5.77
Macquarie Communications Infrastructure Group	July 2002	IPO–stapled securities	13	310	4.2
ACCC Average			14.02	467.27	3.55
Prime Infrastructure	2002	IPO–units	11.4	284.5	4.00
DUET	Aug. 2004	IPO–stapled units	9.4	257.9	3.64
New Average (excluding Envestra)			13.5	428.1	3.69
New Median (excluding Envestra)			12.5	297.3	3.83

Source: ACCC, company prospectuses

Table 7.2 reproduces the ACCC's analysis of IPO costs and up–dates it for the floats of Prime Infrastructure and DUET. We find that the average IPO cost rises marginally from 3.55% to 3.69%. However, the new median value is 3.83%, and for consistency with ACG's recommendations to apply median values with respect to transaction costs for other funding sources, we would recommend that the ACCC consider raising its allowance for IPO costs to 3.83%.

7.6 Conclusions

This chapter has considered the issue of IPO costs and their relationship to regulated assets and allowed revenue targets. It has been argued that when an RAV is already in place and has been used to determine target revenues based on the building block approach, capital-raising costs must be considered to be explicitly or implicitly incorporated in the RAV. In the case of privatised assets, the amount bid (or raised in a float) for the assets has already taken account of the RAV. The corollaries of this proposition are as follows:

- Shareholders in a regulated company, including government shareholders, are already receiving a return on initial capital raising costs (including IPO costs) in revenues at the average regulatory rate of depreciation; and
- Since shareholders, through depreciation of the initial RAV, have been provided a return on initial capital raising costs, there is no case for providing an additional return in cash flows or through an adjustment to the WACC.

When an RAV has not been determined, or regulated assets have been purchased without an RAV having been determined, the ACCC would need to approve an RAV proposal put forward by the regulated entity. In determining an RAV valuation, that RAV proposal would be likely to include amounts for interest during construction and initial capital raising costs. The initial capital raising costs could include estimates of IPO raising costs and up-front debt raising costs. Within a DORC framework, ACG recommends that such costs be capitalised into the ORC and be depreciated to the current DORC equivalent at the general depreciation rate applicable to ORC assets. In addition, ACG recommends that:

- Benchmarked IPO raising costs can provide an estimate of the equity capital raising cost component;
- Benchmarked incremental up-front debt raising costs can provide an estimate of the debt capital raising cost component; and
- These cases should apply the current benchmark transaction cost for equity (IPO cost) and debt (debt raising costs incremental to the on-going debt retirement benchmark).

With respect to the benchmark transaction cost for equity raising, an update of the ACCC's analysis, and reliance on the median value rather than the average, suggests that the ACCC should consider raising its benchmark from 3.55% to 3.83%.

Chapter 8

Retained Earnings and Seasoned Equity Offerings (SEOs)

8.1 Introduction

In this chapter we consider equity raising costs beyond the initial public offering. Companies may require new funds to undertake capital expenditure, make a new investment, or takeover another company. There will be a limit to the degree to which a company can increase its gearing to undertake such projects, and at the same time maintain financial viability. Regulators must ensure that the revenue target allowance provides for the regulated utility to maintain its financial viability and a notional investment grade credit rating. However, as noted in Chapter 2, the concept of the notional entity constrains regulators to consider only organic growth, and to ignore a regulated entity's M&A activity.

The equity raising options faced by a company seeking funds to undertake capital expenditure for asset replacement and expansion include:⁷¹

- Retained earnings;
- Dividend Re-investment plans;
- Share purchase plans;
- Private placements to large shareholders;
- Open offers of new shares; and
- Rights issues to existing shareholders.

Leaving aside retained earnings, the four remaining options can be categorised as Seasoned Equity Offerings (SEOs), as they all involve the purchase of new shares. The last two options in this list require the issue of a prospectus, and can therefore provide information for an objective benchmark of SEO costs.

Our approach in this chapter is as follows:

- First we consider whether an allowance for SEO costs should be funded by the customers of regulated utilities.
- Next, we consider how, and in what circumstances such an allowance should be provided.
- Lastly, we calculate a benchmark for SEO issuance costs

8.2 Retained earnings and seasoned equity offers

Retained earnings and seasoned equity offers are the means by which listed companies can obtain further equity-based funds for their operations. Each of the sources of equity funding is now considered in turn.

⁷¹

In addition, companies will have access to internal cash flows from depreciation allowances.

Retained earnings (RE)

Retained earnings have no issue costs and are generally undertaken continuously by regulated entities. The level of retained earnings will depend on the dividend policy pursued by the utility. The actual dividend policy may be influenced by the specific circumstances of the ownership structure of the entity. That is, dividend policy may differ between a listed company, a subsidiary of a company or a government business enterprise (GBE). The regulator needs to consider a standard (benchmark) dividend policy, and therefore retentions policy, for the regulated entity.

Dividend Re-investment Plan (DRP)

Dividend re-investment plans allow investors to re-invest dividends in the stock at a discount to the normal purchase price in the market (plus a saving on the fees that would thereby be incurred). The base price discount started at 5% when DRPs were first introduced, but has now fallen to lower levels. Companies will often underwrite a DRP with a broker since there may be only a 30% take-up rate on the DRP. Initially fees of 1%–2% were applied for this service, however competition among brokers has reduced this to zero, with brokers earning their fee from placing stock at less than the standard DRP price discount applied by the firm.

Share Purchase Plan (SPP)

Share purchase plans have become a relatively popular mechanism for raising equity on a continuous basis from existing shareholders, and acts as a counter-weight or balance to private placements made to large shareholders. An SPP is voted on at the annual general meeting (AGM), and allows the company to issue new shares up to a value of \$5,000 per shareholder. Brokers offer to underwrite SPPs as the take-up may vary from 40% to 95%. The broker's exposure could last for 5 to 6 weeks, and if the price discount is 10%–15% a fee of 2.5%–3% could be charged.

Private Placement (PP)

In a private placement, shares are allocated directly to an institution or corporate shareholder rather than going through a public offering. Private placement fees can range from 1% or less, to 5%–6% on biotechnology stocks. Among middle-sized companies, fees can range from 2.5% to 3%. The main determinants of the size of the placement fee are as follows:

- Size of the placement — which will reduce average cost due to the spreading of fixed costs;
- Risk — as proxied by the volatility of the stock and its profile within its industry;
- Size of price discount — the discount off the market price of the shares is inversely related to the size of the fee since a higher discount means less risk. A 5% price discount is standard for a private placement.
- Time — the longer an exposure lasts the higher will be the fee.

Rights issues and Public Offers

Rights issues provide existing shareholders with an opportunity to invest more funds in the company pro rata to their existing shareholding. In a public offering the general public will be invited to participate in the offer, although existing shareholders may be provided with priority allocation of shares. Further analysis of rights issues and public offers (referred to as SEOs) is undertaken in the discussion below. Like IPOs, SEOs will incur costs, although these will be on a smaller scale.

8.3 Allowance for SEO issuance costs

Fundamentally, the issue of whether an allowance should be made for transaction costs associated with subsequent equity raisings turns on whether there is a requirement for funding that exceeds the amounts provided by retained earnings combined with additional debt issues. In the case of network industries, this situation is only likely to occur when there is an unusually lumpy item of capital expenditure that needs to be funded.

Equity-sourced funds can be obtained at zero cost (not taking into account the required return on equity capital) by simply retaining earnings before any other measures are required. For most regulated utilities that are subject to modest and incremental customer and usage growth, internal cash flow (generated by depreciation allowances) and retained earnings could be expected to provide, together with additional debt, the finance required to fund replacement and growth capital expenditure. Outside of M&A activity (even between regulated businesses), which has its own risks and rewards outside the regulatory process, the foregoing scenario suggests that there will not generally be a need for an SEO. This indicates that such issues should be looked at on a case-by-case basis, not in relation to actual SEO raisings undertaken by the regulated entity, but through:

- Determining that an SEO (in addition to retained earnings and new debt issues) is required;
- Estimating the minimum size of SEO required that is consistent with maintaining the notional credit rating and ability of the entity to attract capital in future; and
- employing a benchmarking approach to SEO costs to establish the appropriate cost of raising the required funds.

As for initial equity raising transaction costs, there is a choice as to whether to amortise the SEO costs over the length of life of the assets being purchased with the capital raising, or to hold the value in perpetuity and make an allowance to cash flows or the WACC on this basis. The Allen Consulting Group prefers the former approach, which would add the benchmarked cost of the SEO to the RAV value and amortise over the life of the assets. This would provide a slightly higher target revenue amount in the medium term, but the PV of cash flows would be identical.

8.4 SEO cost and fee structure

Table 8.1 displays the characteristics and costs of a sample of 30 Australian SEOs that raised \$11.8 billion between 1998 and 2004. The vast majority of these SEOs (26 out of 29) were primarily rights issues, which has been the tradition in Australia. Almost half of the rights issues included a smaller institutional placement tranche, although this source raised only \$989 million of the \$11.8 billion total. Only three SEOs were 'purely' public issues, but even these provided priority to existing shareholders. Table 8.1 illustrates that SEOs are often applied to major projects with the average SEO raised with \$400 million. At the same time, many smaller projects are undertaken with SEOs, since the median size of gross proceeds was \$115.1 million.

The SEO cost and fee structure mirrors that of IPO, which were discussed in Chapter 7, however the tasks are less complex. For example, a bookbuild would not generally be undertaken, and research costs and prospectus preparation costs would be much lower due to the existence of information and analysis on the listed company. The median (average) underwriting fee was 2.00% (2.13%) and the average management fee was 0.63% (0.78%). Median (average) legal costs were \$193,000 (\$272,000) and corresponding accounting and auditing costs were \$183,000 (\$267,000). All of these items are well below the respective costs of an IPO.

ACG selected five companies from the group, three of which are infrastructure providers (Australian Infrastructure Fund, Macquarie Airports and Macquarie Infrastructure Fund), and two property trusts that exhibit stable cash flow characteristics (Bunnings Warehouse Property Trust and Macquarie Office Trust). The median (average) SEO transaction cost for this group was 2.97% (2.92%). This indicates that an SEO cost of 3% may be an appropriate benchmark.

However, the main application of equity funds raised by this group was for the acquisition of a new company or to make a new investment. The table also shows that when the purpose of the SEO was to raise funds for debt repayment (rather than for acquisition), the cost could be significantly lower. For these three companies (AMP, Macquarie Goodman Management and Foodland Associated) the median (average) SEO cost was 1.71% (1.77%). This indicates that a regulated utility that raises equity for capital expenditure associated with its own existing operations may face lower costs than the 3% observed overall, or for infrastructure companies. Thus, whilst ACG concludes that an SEO transaction cost benchmark of 3% is appropriate for regulated infrastructure companies, this should be viewed as an upper limit of the likely cost of an SEO associated with capital expenditure within existing regulated activities.

Table 8.1

AUSTRALIA: LARGE COMPANY SEO COSTS, 2001

Company	Reason	Expected proceeds (\$m)	Total Cost (\$m)	Cost as % proceeds
Prime Credit Property Trust	Acquisition – Prop.	57.3	2.20	3.84
Adsteam Marine	Acquisition – Co.	180.0	6.70	3.72
APN News & Media	Acquisition – Co.	451.0	14.66	3.25
Bunnings Warehouse Property Trust	New investment	29.5	0.88	2.97
Gunns	Acquisition – Co.	111.7	5.83	5.22
Macquarie Infrastructure Group	Acquisition – Co.	1330.0	38.00	2.86
Macquarie Office Trust	Acquisition – Prop.	66.7	2.10	3.15
Queensland Insurance Group	New investment	121.0	2.37	1.96
Amcor	Acquisition – Co.	1,200.0	17.00	1.42
Coates Hire	Acquisition – Co.	69.4	5.70	8.21
Deutsche Industrial Trust	Acquisition – Prop.	53.0	1.29	2.43
Foodland Associated	Reduce debt	338.0	7.00	2.07
Investa Property Group	Acquisition – Prop.	330.0	7.00	2.12
James Fielding Group	Acquisition – Co.	89.3	4.08	4.57
Macquarie Airports	Acquisition – Co.	670.0	20.00	2.99
Macquarie Infrastructure Group	Acquisition – Co.	800.0	21.20	2.65
Bank of Queensland	Acquisition – Co.	62.1	1.95	3.14
ANZ Bank	Acquisition – Co.	3,570.0	27.00	0.76
Australian Infrastructure Fund	Acquisition – Co.	80.0	2.30	2.88
Macquarie Countrywide Trust	Acquisition – Prop.	101.0	3.02	2.99
AMP	Repay debt	1,190.0	18.00	1.51
Macquarie Goodman Management	Reduce debt	35.0	0.60	1.71
Prime Retail Group	Acquisition – Co.	90.0	1.35	1.50
James Fielding	Acquisition – Prop.	115.1	6.04	5.25
Alesco Corporation	Acquisition – Co.	69.3	2.35	3.39
F J Meridian	Acquisition – Prop.	60.1	2.83	4.72
Record Investments	New investment	126.0	3.00	2.38
Macquarie DDR Trust	Acquisition – Prop.	280	8.90	3.17
Australand Property Group	Acquisition – Co.	188.5	3.20	1.70
Average		409.1	8.16	3.05
Median		115.1	4.08	2.97

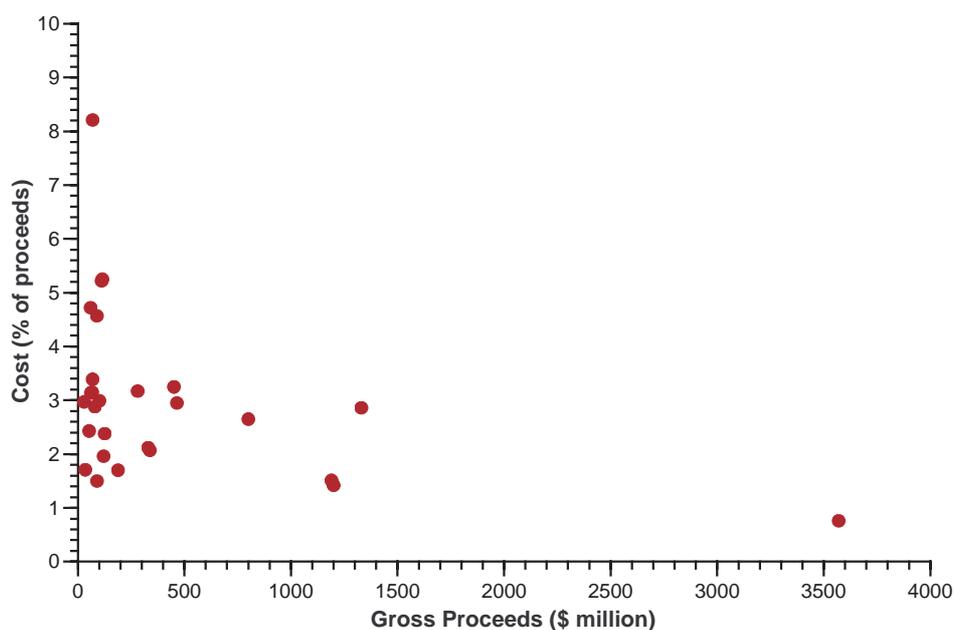
Source: Company prospectuses

8.5 Determinants of SEO fee structure

A scatterplot of SEO costs and size of gross proceeds is displayed in Figure 8.1. The scatter is similar to that for IPOs, indicating a falling cost structure, but at a lower cost level. Most of the costs are seen to be clustered in the range of 2%–3%, although some small issue–size outliers raises the average.

Figure 8.1

AUSTRALIA: COSTS OF SEASONED EQUITY OFFERINGS, 1998–2004



Source: Company prospectuses

8.6 Economies of scale in SEOs

In this section we replicate the methodology applied by Altinkilic and Hansen who studied SEO issuance costs in the US.⁷² For the sample of 29 SEOs, all monetary values have been translated at the CPI to June 2004 values. An adjusted R^2 of 0.29 indicates a significant degree of unexplained variance in costs, however the general behaviour of the coefficients is broadly consistent with the US findings.

⁷²

Altinkilic O. and R. S. and Hansen (Spring 2002).

The coefficient for the inverse of proceeds is an estimate of fixed costs, and is statistically significant at better than the 1% level. The fixed costs estimate in the US was USD256,000 measured in 1990 January dollars. This translates to \$56,500 applying US inflation and translating at the current exchange rate. This compares with a fixed cost estimate of \$779,050 using the current sample. The coefficient on the variable Proceeds/Total Equity provides an estimate of variable cost. It is positive and statistically significant at better than the 1% level. Stock volatility is measured as the standard deviation of returns over the 220 days prior to the month before the SEO occurs. This coefficient is of the correct positive sign (higher volatility increases SEO issuance cost), but is statistically significant at only the 10% level using a one-tail test.

Table 8.2

AUSTRALIAN SEASONED EQUITY OFFERINGS:OLS ESTIMATES OF GROSS SPREAD

Independent Variables	Coefficient	t Statistic	Statistical Significance
Intercept	0.322	0.378	Not Sig.
1/Proceeds	77.905	2.552	1%
Proceeds/Total Equity	4.150	3.196	1%
Stock Volatility (σ^2)	0.033	1.362	10%
Adj. $R^2 = 0.29$	N = 29	F = 4.818	1%

Source: ACG analysis applying data from Bloomberg and company prospectuses.

As in the US study, ACG found that fixed costs fall with the size of issue, but as the relative size of the issue increases, rising variable costs eventually raise the cost of issuance. Hence, companies raising a large amount relative to existing capital will encounter diseconomies of scale.

Attempting to derive a benchmark of SEO costs based on regression analysis faces the problem that in the 29 SEOs identified, not one was aimed at raising funds for an expansion of existing regulated activities. In a previous section we found that raising funds for debt reduction was likely to attract a significantly lower SEO issue cost than for the acquisition of new businesses. The lack of discriminating data, such as observations of SEO issuing costs for internal capital expenditure, indicates that regression analysis cannot be applied in this case.

8.7 Conclusions

Funds obtained by companies through retained earnings and DRPs are generally applied to smaller capital expenditure items associated with organic growth of a business. ACG recommends that these sources should not attract an issuance cost allowance, since they only have minor direct costs associated with them.

In Australia, rights issues, placements and seasoned public issues (ie SEOs) are generally applied to major acquisitions of one form or another. There can be instances of regulated businesses where incremental capital expenditure is very lumpy and a significant equity injection is necessary, as the notional capital structure would be breached for a considerable period (or expected debt covenants associated with the notional capital structure would otherwise be breached). However, ACG is not aware of any specific Australian case in which an SEO raising has been clearly justified for a regulated asset.

If a rights issue (or other SEO) were found to be required, ACG recommends a benchmark transaction cost of 3%, adding the amount of SEO transaction costs to the capital base (RAV) and depreciating over the life of the assets purchased with funds raised by the notional, benchmarked SEO.

Glossary

ACCC	Australian Competition and Consumer Commission
ACG	The Allen Consulting Group
ACT	Australian Competition Tribunal
AFDUC	Allowance for Funds Used During Construction – a term used in US regulation for interest incurred during construction.
AGSM	Australian Graduate School of Management
Allgas	Allgas Energy Limited
AUD	Australian dollars
basis point	One hundredth of a percentage point — a measure of interest cost
<i>Basis Point</i>	Reuters-owned investment banking magazine and database holding bank and bond transaction details
Bloomberg	Bloomberg database, holding economic, financial and bond deal details
bppa	Basis points per annum
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
CBASpectrum	Commonwealth Bank-owned database that estimates bond market debt margins for different tenors and credit rating.
CC	Competition Commission (UK) — formerly the Monopolies and Mergers Commission (MMC)
CPT	Debt used for construction, project finance of takeovers (including LBOs and MBOs)
Credit wrapping	Where a monoline provides its own AAA credit rating to a bond issue
Dealer swap margin	Margin paid to a dealer organising a swap for fixed interest obligations to floating or vice versa.
DORC	Depreciated Optimised Replacement Cost
DRP	Dividend Reinvestment Plan
ERP	Equity Risk Premium (equivalent to MRP)

ESC	Essential Services Commission (Victoria) formerly the Office of the Regulator General (ORG)
ESCOSA	Essential Services Commission of South Australia
EV	Enterprise Value, comprising Equity Value plus Debt value
FERC	Federal Energy Regulatory Commission
GBE	Government Business Enterprise
Greenfield	Projects requiring new construction
Gross underwriting fee	Fees paid to investment bankers organising a bond or equity issue including management, underwriting and selling fees but not legal fees and incidentals.
IPART	Independent Pricing and Regulatory Tribunal
IPO	Initial Public Offering
LBO	Leveraged Buy-Out
M&A	Mergers and Acquisition
MBO	Management Buy-Out
MMC	Monopolies and Mergers Commission, UK (now the Competition Commission)
MRP	Market Risk Premium
MTN	Medium Term Note (Bond)
NR	Not rated by a rating agency
ODRC	Optimised Depreciated Replacement Cost (see RAV)
OFFGAR	Office of Gas Regulation (Western Australia)
Ofgas	Office of Gas Regulation (UK)
Ofgem	Office of Gas and Electricity Markets (UK)
Oftel	Office of Telecommunications (UK)
Ofwat	Office of Water Regulation (UK)
ORC	Optimised Replacement Cost
ORG	Office of the Regulator General (Victoria)
OPEX	Operating Expenditure (see O&M)
Private placement	Placement (sale) of shares or bonds privately to a small number of investors
Public offer	A public offer of shares or bonds to investors

QCA	Queensland Competition Authority
QIB	Qualified Institutional Buyer — buyer qualified to participate in 144A private placement bond issues
RAV	Regulatory Asset Base, which could be the ODRC or Rate Base (US)
Regulation D	Regulation allowing private placements in the US not to have to comply with normal SEC disclosure requirements
Rule 144A	Regulation allowing private placements in the US not to have to comply with normal SEC disclosure requirements
SEO	Seasoned Equity Offer — one that comes after an IPO
SPP	Share Purchase Plan
Tenor	Years to maturity of a bond or debt facility
TNSP	Transmission Network Service Provider
UE	United Energy Limited
WACC	Weighted Average Cost of Capital

*Appendix A***Bond Underwriting Cost Benchmark Calculation**

Table A.1

AUSTRALIAN INTERNATIONAL BOND ISSUES: BENCHMARK MEASURE

Yr.	Company	Total Gross bppa	Tenor adj. bppa	5 yrs roll. Ave.	5 yrs roll. Med.
10 year tenor:					
1996	Mayne Nickless	9.0	9.0	9.0	9.0
1998	Pacificorp	6.5	6.5	7.8	7.8
	Normandy Finance	7.6	7.6	7.7	7.6
	Normandy Finance	8.8	8.8	8.0	8.2
1999	Qantas Airways	4.0	4.0	7.2	7.6
	Singtel Optus Finance	4.0	4.0	6.6	7.1
2000	Singtel Optus Finance	6.5	6.5	6.6	6.5
	Singtel Optus Finance	6.5	6.5	6.6	6.5
	SPI Australia Finance	3.8	3.8	6.3	6.5
2001	Telstra Corporation	3.8	3.8	5.7	6.5
2002	Telstra Corporation	3.3	4.0	4.7	4.0
2003	Australian Gas Light	3.5	4.3	4.6	4.0
	United Energy Dist.	6.6	5.3	4.7	4.0
	United Energy Dist	4.6	6.0	4.8	4.1
	United Energy	4.6	6.0	4.9	4.3
2004	Telstra Corporation	3.5	3.5	4.8	4.1
5 year tenor:					
1998	United Energy	12.5	17.5	17.5	17.5
2000	Fosters Brewing Group	9.0	9.0	13.3	13.3
	ETSA Utilities Finance	7.0	7.0	11.2	9.0
	Telstra Corporation	6.0	6.0	9.9	8.0
	SPI Australia Finance	5.4	7.6	9.4	7.6
	Pacific Dunlop	3.4	3.4	8.4	7.3
2001	Coca Cola Amatil	4.0	4.0	7.8	7.0
	Coles Myer Finance	7.0	7.0	7.7	7.0
	Coles Myer Finance	3.8	3.0	7.2	7.0
2002	Coca Cola Amatil	2.6	2.6	5.5	6.0
	Coca Cola Amatil	4.0	4.0	5.4	5.0
2003	Hutchison Comm. Aust	5.0	5.0	5.3	5.0
2004	Amcor	5.0	7.0	5.5	5.5

Source: Bloomberg and ACG analysis

*Appendix B***Australian Infrastructure Bond Issuers**

Table B.1

AUSTRALIAN INFRASTRUCTURE COMPANIES ISSUING BONDS

1	Adelaide Airport Limited
2	Australian Gas Light Limited
3	Australia Pacific Airports Melbourne Pty. Ltd.
4	Brisbane Airport Corp Limited
5	Citipower Limited
6	Eastern Energy Limited
7	ElectraNet Pty. Ltd.
8	Energy Partnership Gas Pty. Ltd.
9	Envestra Limited
10	Envestra Victoria Limited
11	ETSA Utilities Finance
12	GasNet Australia Group
13	Loy Yang Power
14	Powercor Australia
15	Pacificorp Australia
16	Southern Cross Airports
17	SPI Australia Finance Pty Ltd
18	TXU Australia Holdings
19	Transurban Citi Link Trust
20	Transurban Finance Company
21	United Energy Limited
22	United Energy Distribution
23	Westralia Airports Corp

Source: Bloomberg

Appendix C

Project Finance Debt

Table C.1

PROJECT FINANCE DEBT SAMPLE COMPANIES

1	Australian Railroad Group Pty. Ltd. Westrail Freight
2	NextGen Networks Pty Ltd.
3	Asia Pacific Transport Finance Pty Ltd
4	TM Energy (Australia) Pty. Ltd.
5	Australian Magnesium Corp Ltd
6	Basslink Pty Ltd
7	Burrup Fertilisers Pty Ltd
8	Cross City Motorway Finance Pty Ltd
9	WSO Finance Pty Ltd, Westlink Motorway Ltd

Source: *Basis Point*

Appendix D

Term Debt

Table D.1

TERM DEBT SAMPLE COMPANIES

1	Affinity Health Pty Ltd, Mayne Group Ltd
2	AlintaGas Network Holdings Pty Ltd
3	Basslink Pty Ltd
4	Broadcast Australia Finance Pty Ltd
5	Burns Philp & Co Ltd
6	Burns Philp Treasury (Australia) Ltd
7	Cheung Kong Infrastructure Finance Australia Pty Ltd
8	CKI transmission Finance (Australia) Pty Ltd
9	Cross City Motorway Finance Pty Ltd
10	Energy Partnership (Gas) Pty Ltd
11	GasNet Australia (operations) Pty Ltd
12	HEI Transmission Finance (Australia) Pty Ltd
13	Hong Kong Electric International Finance Australia Pty Ltd
14	NextGen Networks Pty Ltd
15	PMP Ltd
16	Qantas Airways Ltd
17	Southern Cross Airports Corp Pty Ltd
18	Transurban Finance Co Ltd
19	TXU Australia Holdings (Partnership) LP
20	United Energy Distribution Holdings Pty Ltd
21	Visy Kraft Holdings Pty Ltd

Source: *Basis Point*

Appendix E

Revolver Debt

Table E.1

REVOLVER DEBT SAMPLE COMPANIES

1	Affinity Health Pty Ltd, Mayne Group Ltd
2	AlintaGas Network Holdings Pty Ltd
3	Amcor Ltd
4	Australia Pacific Airports (Melbourne) Pty Ltd
5	Broadcast Australia Finance Pty Ltd
6	Burns Philp & Co Ltd
7	Burns Philp Treasury (Australia) Ltd
8	Energy Partnership (Gas) Pty Ltd
9	Envestra Ltd
10	National Foods Ltd
11	Optus Finance Pty Ltd, Singapore Telecommunications Ltd
12	Publishing & Broadcasting (Finance) Ltd
13	Qantas Airways Ltd
14	Sydney Airports Corp Ltd
15	Transurban Finance Co Ltd, Transurban City Link Ltd
16	TXU Australia Holdings (Partnership) LP
17	TXU Australia Holdings Pty Ltd
18	United Energy Distribution Holdings Pty Ltd
19	United Energy Ltd
20	Westfield Capital Corp Ltd
21	WMC Finance Ltd

Source: *Basis Point*