The Allen Consulting Group

Transaction costs of raising equity finance: the dividend yield assumption

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Report to TransGrid

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Contents

Executive summary *iii*

Chapter 1 7
The Brief *7*
1.1 The Brief 7
1.2 Outline of report 7

Chapter 2 8
Theoretical and methodological issues *8*
2.1 Introduction 8
2.2 Theoretical foundations 8
2.3 Pecking Order Theory 9
2.4 Determinants of the dividend yield 11
2.5 Conclusions 13

Chapter 3 14
AER's empirical evidence *14*
3.1 Introduction 14
3.2 Empirical evidence on dividend yields 14
3.3 Envestra case study 16
3.4 ConnectEast Case Study 17
3.5 Summary and conclusions 18

Chapter 4 20
Current evidence on dividend yields *20*
4.1 Introduction 20
4.2 The AER's sample in the Powerlink decision 20
4.3 Current dividend yield of the regulated infrastructure sector 21
4.4 Conclusions 22
Bibliography *23*

Executive summary

Project Brief

TransGrid has engaged the Allen Consulting Group (ACG) to provide advice which is to form an input to TransGrid's forthcoming revenue proposal to the Australian Energy Regulator (AER). The specific requirements of our brief were:

- First, review and comment on the AER's assumption, which it has applied in the calculation of an equity transaction cost allowance in recent price reviews, that a dividend yield of 3.5 percent should be applied in the calculation of this allowance.
- Secondly, review market evidence to estimate the current dividend yield that is appropriate for calculation of the equity transaction cost allowance.

Background

In 2004 ACG undertook a study for the ACCC, which outlined a broad methodology for the provision of an allowance for equity raising transaction costs. However, the detailed application of the methodology, in particular the assumption that should be made in respect to the dividend payout policy of a regulated business faced with a large capital expenditure program was not set out.

In a subsequent analysis of these issues for Powerlink, ACG proposed that an equity injection should be assumed to be required if there is a shortage of cash flow to a business in the position of Powerlink that conformed to benchmark financing arrangements. Those benchmark financing arrangements were that the firm had a constant level of debt at the benchmark level (i.e., 60 per cent of the regulatory asset base), paid interest payments based on the benchmark interest cost and made benchmark distributions to equity providers, where the benchmark distribution was set at a benchmark dividend yield (of yields for utility firms) multiplied by the regulatory value of the equity in the firm (i.e. 40 per cent of the regulatory asset base). The quantum of the equity raising transaction cost allowance would then be determined by multiplying the empirically derived cost by the shortage of cash flow computed using the method.

A benchmark dividend yield of 8.0 per cent was proposed based on empirical observation of yields for utility firms. The AER, when considering Powerlink's submission and ACG's report to Powerlink, rejected the proposal that an 8.0 percent yield is appropriate in circumstances where the firm has a high level of capital expenditure, and applied a dividend yield of 3.5 percent. The AER's assumed dividend yield of 3.5 percent was derived by reference to a group of 10 businesses with high capital expenditure intensity levels, but this group was dominated by resource and industrial companies. This significantly reduced the quantum of the equity raising transaction cost allowance for Powerlink that was approved by the AER.

Theoretical and methodological issues

Chapter 2 of the current report considers the methodological and empirical issues raised by the AER's decision in the Powerlink case. We raise a number of concerns with the AER's benchmark dividend yield assumption.

- First, the sample of businesses that was chosen by the AER to derive its benchmark dividend yield assumption did not have the normal characteristics of regulated utility businesses. In particular, the sample companies had much lower debt gearing (reflective of the market as a whole), lower dividend payout ratios, and lower dividend yields than regulated utility businesses.
- Secondly, the AER's implicit assumption implied that a benchmark regulated utility would reduce its dividend payout when faced with a large capex spend, and therefore its dividend yield, rather than approach the market for equity finance. However, reducing the dividend payout (and dividend yield) imposes costs on high yielding regulated utilities when there is a clientele of investors who prefer these firms, and when a reduction in dividend yield is interpreted as conveying a negative 'signal' about the business. The share registers of regulated utilities are dominated by clienteles that seek high and stable dividend yields, and any disruption in these payments will send a negative market signal.
- Thirdly, while the AER made an allusion to low or zero transaction cost equity raising options, such as dividend reinvestment plans, the implications of this line of reasoning were not developed. In the case of TransGrid's cash flow modelling we find that the new equity requirement is larger than the entire notional dividend payment. While some of this requirement could theoretically be generated by a DRP instituted for a few years, it is questionable whether the majority of the high yield seeking shareholder clientele of a benchmark regulated business would prefer reinvestment to dividend yield. Therefore, this approach would have practical limits.
- Fourthly, the AER suggested that equity funds could be deemed to have been set-aside in an earlier regulatory period, so that equity raising in the current capital expenditure intensive period would be reduced. However, this would imply a reduction in the dividend in the earlier period, providing an ambiguous signal to the market, and would not be viewed favourably by a shareholder clientele that prefers dividends.
- Fifthly, the AER did not examine for its own sample of high capital expenditure intensity businesses the *process* that took place as the capital expenditure requirement increased, in particular whether these businesses actually reduced the level of distributions and payout ratios on average, which is the process that has been suggested for regulated businesses.[1]

Regulated businesses have a clientele of shareholders

In the course of investigating these shortcomings in the AER's approach, we have examined the academic literature on the determinants of dividend payout ratios. A key theme in this literature is the finding of the 'clientele effect' relating to high dividend paying regulated businesses. Impson (2001, p.122) noted that the electricity utility industry 'has a shareholder clientele that invests in it for its generous dividends'.

[1] Dividends are the dollar amount distributed per share, the dividend payout ratio is the dividend amount as a percentage of Net Profit After Tax, and the dividend yield is the dividend payment as a percentage of the market value of equity

In another study, Impson (1997) found that the share price of public utility companies announcing a reduction in dividends are negatively impacted to a greater degree than non-regulated businesses, since there is a 'flight to quality' by the clienteles requiring a high dividend yield. That is, the shareholders of utility businesses will sell their shares and purchase other shares offering high dividend yields. Impson noted that another reason for expecting a severe share price reaction to a regulated business reducing its dividend payout a reduction in the dividend payout rate is that it is an indicator of poor financial health. For these reasons regulated utility businesses would be expected to have different dividend paying characteristics to other types of firms.

AER's empirical evidence on dividend policy

When we examine the characteristics of the AER's sample of 10 high capital expenditure intensity businesses we find that although their average dividend yield did fall in the years 2003 to 2006, unlike the AER's implicit assumption, the absolute value of the dividends (and the dividend payout ratio) did not fall. In fact, the average dividend payout ratio was 11 percent higher in 2006 than in 2003. The reason that the dividend yield of the AER sample reduced over the period because their share prices rose significantly due to a re-rating of future earnings potential. The rise in capex was not accompanied by a fall in distributions.

We also examine empirical evidence that contradicts the approach applied by the AER:

- We find that several of the businesses in the AER's sample issued equity during the period.
- We examine the case of Envestra, a listed regulated business with high dividend payout and yield, which has raised money in a number of equity issues while maintaining a high payout ratio, rather than reducing the payout ratio.
- We also examine the case of Eastlink, which was listed as a business that attracted the high dividend yield clientele, and has paid regular dividends and yielded 4.9 percent without yet earning any revenue.

Conclusion

We find compelling evidence to support the view that a regulated high yield business such as TransGrid would be reluctant to reduce the dividend yield due to a spike in capital expenditure requirements. We therefore conclude that the most reasonable assumption is that a regulated utility business will seek to maintain its dividend yield at a level that is consistent with its peers, and under a benchmark gearing constraint of 60 percent debt, would choose to raise external equity capital rather than reducing its dividend yield if there was a shortage of cash flow after meeting an increased capital expenditure requirement.

Current evidence on dividend yields

With respect to the dividend yield, we find that the AER's sample of high capital expenditure intensity businesses have a current yield in the range of 3.65 to 4.54 percent (compared with the 3.5 percent calculated by the AER for 2006). However, we do not believe that this sample is appropriate to apply to regulated infrastructure businesses. These firms are dominated by resource and industrials that are not appropriate comparators for regulated businesses.

In September 2007 UBS calculated the average dividend yield of a group of 11 businesses with a high average component of regulated infrastructure activities as 8.6 percent. We recommend adoption of the figure of 8.6 percent as the dividend yield parameter used for estimating the equity transaction cost allowance, or alternatively a long term average that takes account of varying market conditions.

The AER has questioned whether it is appropriate to apply an empirically determined dividend yield when a majority of the listed entities observed in the Australian market do not conform to the standard company structure where tax is paid and distributions to shareholders are made subsequently. Instead, a number of the listed entities are structured so that distributions in the form of interest and return of capital are made to shareholders.

According to the AER's reasoning, this casts doubt on the ability of regulated entities structured as tax paying companies to provide a yield of 8 percent or more to shareholders. However, the distributions are structured to permit a high dividend yield when making accounting losses (i.e. when making accounting losses). The fact that these structures exist underscores the importance of high yield to their shareholders.

Chapter 1

The Brief

1.1 The Brief

TransGrid has engaged the Allen Consulting Group (ACG) to undertake a review of issues relating to the transaction cost of raising equity finance, which would form an input to TransGrid's forthcoming revenue proposal to the Australian Energy Regulator (AER). In particular, our brief requires us to provide a report that:

- First, reviews and comments on the AER's assumption, which it has applied in the calculation of an equity transaction cost allowance in recent price reviews, that a dividend yield of 3.5 percent should be applied in the calculation of this allowance.
- Secondly, reviews market evidence to estimate the current dividend yield that is appropriate for calculation of the equity transaction cost allowance.

1.2 Outline of report

In chapter 2 we consider the theoretical foundations underpinning the case for an equity transaction cost allowance. We examine the Pecking Order Theory in the context of regulated energy distribution and reasons why such firms could be expected to resist reducing payout ratios (and therefore dividend yield) in order to fund a spike in capital expenditure requirements. The theoretical appropriateness of the AER's assumption of a 3.5 percent dividend yield is considered there.

In chapter 3 we provide empirical evidence that examines the characteristics of the sample of firms used by the AER to estimate the 3.5 percent dividend yield assumption, and the response applied by those firms to a large capital expenditure program. We also introduce direct evidence of the dividend payout policies and therefore yield outcomes seen in Envestra and ConnectEast, which both attract a high dividend yield investor clientele.

In chapter 4 we undertake an empirical analysis to assess the current market yield on regulated utility businesses.

Chapter 2

Theoretical and methodological issues

2.1 Introduction

In this section we consider the theoretical and methodological issues associated with an allowance for the equity transaction costs in connection with capital expenditure programs. We begin with the theoretical foundations that we outlined in an earlier report to the ACCC. This discussion is followed by a consideration of methodological issues.

2.2 Theoretical foundations

ACG's 2004 study

In our 2004 study of debt and equity transaction costs undertaken for the ACCC, ACG (2004, p.64) recommended that for ongoing regulated businesses:

> 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 debt issues.

That is, we believed that there may be a legitimate case for an allowance for equity raising transaction costs in the future, with this matter dependent upon an empirical assessment of the expected future cash flows of the entity (and, in particular, its expected capital expenditure requirements relative to internally generated cash flows). It was concluded that:[2]

> Accordingly, external injections of equity for subsequent capital expenditure should only be assumed where a case can be made that, given the assumed gearing level (i.e. a stock of debt equal to say, 60% of 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).

We expected that in most situations it would be difficult to demonstrate that new equity would have to be raised in order to finance additional capital expenditure. This was because for most infrastructure businesses, the capital expenditure requirement is around 3 percent to 5 percent of the RAB per annum, and this level of growth can almost certainly be accommodated through a combination of internal equity sources (retained earnings) and new benchmark debt issues (i.e. from the assumption that 60 percent of capital expenditure would be financed through debt).

[2] ACG (2004), p. xiii.

AER's 2007 Powerlink decision

When conducting its analysis of Powerlink in its decision on the Queensland transmission network revenue cap 2007-08 to 2011-12, the AER (2007, p.100) assumed that a benchmark utility would pay a dividend yield of only 3.5 per cent, based upon a sample of listed resource and industrial entities that have large capital expenditure requirements (no companies in the sample were predominantly regulated utilities). A number of issues arise from the AER's estimation of a benchmark dividend yield:

- The sample that the AER used to derive its benchmark dividend yield can be questioned, given that utilities are geared more highly, pay a much higher percentage of earnings as dividends, have a much higher dividend yield than the average listed entity, and attract investors that expect such payments.
- The implication that companies generally *reduce* their dividend payout/yields when they are faced with large capital expenditure requirements in order to use internal funds rather than raising equity or debt finance to fund these projects was not demonstrated by the AER for its sample.
- The AER's implicit assumption that regulated utilities in particular would reduce significantly their payout ratios when faced with a high capital expenditure requirement was not examined theoretically or empirically by the AER.

2.3 Pecking Order Theory

The AER has relied on the 'Pecking Order Theory' in order to support its proposal that firms will exhaust all avenues before relying on external equity finance.[3]

> If Powerlink's retained earnings are not sufficient and external financing is required, the pecking order theory of capital structure states that firms choose debt over equity (Myers and Majluf, 1984). Furthermore, pecking order theory states that equity will be issued only when the debt capacity of a firm has been exhausted and financial distress threatens.

Accordingly, the AER concluded that if a regulated business had exhausted its internal funds, it would be appropriate to assume that it would raise additional debt until the point at which financial distress threatened. Implicit in the AER's reasoning is that it considered that Powerlink had the capacity to raise debt finance in addition to the regulatory benchmark of 60 percent of the regulatory asset base to finance the required capital expenditure.

In its subsequent consideration of the Powerlink case, the AER concluded that a regulated utility faced with a large capital expenditure program would pursue the 'Pecking Order Theory' by:

- First, exhausting retained cash flow, even if this requires a reduction in the dividend payout ratio, and therefore the dividend yield;
- Then, raising debt finance up to the point at which the debt gearing ratio of 60 percent would be maintained; and
- Lastly, raising equity finance from existing and new shareholders and additional debt sufficient to restore a 60 percent gearing ratio.

[3] AER (2006), p.111.

In other words, the AER held that the regulated business would reduce their dividend payout ratio (and dividend yield) in preference to seeking an external equity injection if there is a shortage of cash to meet a large capital expenditure program. No evidence was provided to show that regulated businesses would reduce their payout ratio and dividend yield when faced with a large capital expenditure program. Instead, evidence was provided in relation to 10 predominantly resource and industrial firms, which had large capital expenditure programs, to conclude that a regulated utility would reduce its dividend yield to only 3.5 percent before seeking an external equity injection.

The AER did not provide evidence about the *process* of moving from a lower to a higher capital expenditure regime, in particular whether this process saw a reduction in dividend payouts and a consequent decline in the dividend yields of these businesses. The empirical evidence considered by the AER comprised only a snapshot of businesses at a point in time, and hence did not show how those firms' dividend payments had responded to a change in capital expenditure requirements, which is the relevant question. In addition, the AER did not present a comprehensive theory that determined to what point a regulated business would rely on internal cash flow (reducing the dividend payout and dividend yield) before relying on external finance that took account of the full range of costs and benefits of such matters as a change to dividend payments, nor did it consider whether regulated businesses are different to the average firm. The AER's assumption was based purely on the view that the dividend yields observed for resource and industrial firms with large capex requirements are appropriate comparators for a regulated business.

While we accept that the 'Pecking Order Theory' is well supported by empirical evidence and that firms will choose internal sources over external sources, care is required when applying the theory to regulated businesses.

First, whether a regulated entity may require external equity funds to support its capital expenditure program requires us to assume that the regulatory standard level of gearing prevails over the regulatory period, at least on average, hence preserving consistency with the regulatory WACC. We note that the AER has accepted this proposition.

Secondly, if the Pecking Order Theory is to be applied in a regulatory context and the capital structure is to be held constant at the regulatory benchmark (in order to maintain a consistency of the other WACC parameters), then after internal funds in excess of the normal dividend payments have been exhausted and gearing has been increased to the regulatory assumption, a large capital expenditure program will require that:

1. New equity is raised in order to support further debt raisings in order to preserve the dividend payout ratio, the dividend yield and the gearing level at 60 percent; or,

2. The dividend payout ratio is reduced, which reduces the dividend yield and new debt is raised to maintain the gearing level until some point at which the dividend payout (and dividend yield) is reduced so far that the process described in point 1 above is invoked.

The Pecking Order Theory does not provide any guidance on these issues in the case of regulated businesses. Empirical evidence supporting the theory found that although internal funds would be preferred to external funds, there is a reluctance to make sudden changes to dividend policy (Donaldson, 1961). That is, the theory does not provide definite guidance on whether a regulated utility firm will prefer a reduction in dividend payout to new debt and equity issues that maintain the level of gearing. The AER has proposed that a benchmark regulated utility will wish to reduce transaction costs, and as a result could be expected to raise equity by:

- Reducing the dividend payout ratio (and therefore the dividend yield);
- Instituting a Dividend Reinvestment Plan (DRP); and/or
- Reducing the dividend payout ratio in an earlier regulatory period.

However, the AER did not produce any evidence to support its theory that a regulated business with a dividend yield of 8.1 percent would reduce its payout ratio sufficiently to reduce its dividend yield to 3.5 percent. Moreover, as noted above, even for the sample of firms that it chose, the AER did not present evidence that these firms reduced their payout ratios in response to an expanding capital expenditure requirement.

In the next section we consider reasons why a regulated business would not be likely to favour a dividend reduction policy in circumstances of high capital expenditure growth.

2.4 Determinants of the dividend yield

The AER concluded that the empirical 'outcome [of a 3.5 percent dividend yield] appears reasonable because a lower dividend yield generally indicates that a company is retaining profits to fund capex.' However, this conclusion is not justified by theory or empirical evidence. The reality is that companies typically do not reduce their dividend yields when they have high capital expenditure requirements, rather dividend payments are much more 'sticky' than the AER has assumed, particularly for the utilities sector. We will address this issue firstly by exploring theoretical arguments for why companies generally, and regulated businesses specifically, would not consciously wish to reduce their dividend yield.

Clientele Effect

The quantum of dividends issued, and therefore the dividend yield, can be a significant factor in a shareholder's decision to invest in a company. As Impson (2001, p.127) notes, the electricity utility industry 'has a shareholder clientele that invests in it for its generous dividends.' That is, regulated energy utilities attract a particular clientele of investors, which desires that the revenue stream generated by the business is paid out as dividends. Lowering the dividend payout ratio (and therefore dividend yield) would reduce this payments stream and therefore decrease the attractiveness of the company's shares to the existing clientele of investors. This would result in this class of investors, without the unique revenue stream, selling their shares in the company and lowering the share price, all other things being equal.

Conscious of this phenomenon, companies may be expected to avoid reducing their dividend yield when seeking to finance a capital expenditure proposal, especially as there are alternative avenues for doing so which do not involve a reduction in share price (via seasoned equity offerings or debt raisings, for example). More fundamentally, a reduction in the dividend yield by a regulated, previously high yield business would be likely to make its shares unattractive in the market in the event that it wished to make new equity issues. Since the clientele that invested in the firm's shares for its high dividend yield would be selling, it would be difficult to attract new investors.

Dividend yield as a signal of signal of financial health

Another reason why companies might avoid reducing their dividend yield is the fact that dividend payments contain information about management's outlook of a company's future. In this way, dividends act as a signal of financial health (when dividends are increased) or financial distress (when dividends are reduced) of the company. Therefore, in order to avoid sending a negative signal to the market by decreasing dividend yields to internally fund a capital expenditure requirement, management may be expected to finance capital expenditures by other means as far as possible.

Empirical studies by Woolridge (1983), Eades, Hess, and Kim (1985), Dielman and Oppenheimer (1984), and Benesh, Keown and Pinkerton (1984) have found that reductions or omissions of dividends paid (i.e. announcing a reduction in dividend yield) have 'significant negative abnormal returns for the announcing firm's common shares' (see Impson, 1997, p.123). Additionally, Impson (1997) found that public utility companies who announced reductions in their dividend payments incurred a significantly more negative market reaction when compared to similar announcements by companies in unregulated industries.

Such findings are relevant for consideration in our estimation of the benchmark dividend yield, as they suggest that we would expect firms, and particularly regulated utility businesses, to avoid decreasing their dividend yields if possible, due to the adverse share market reaction that would be anticipated. As there are other means of generating funds for capital expenditure proposals, and therefore no compulsory need to reduce dividend yields, the AER's conclusion therefore appears to assume irrational behaviour on the part of regulated businesses.

This also reiterates the fact that the appropriateness of the AER's sample is questionable given that it is not likely to capture the unique characteristics of regulated utility stocks stated above. As demonstrated by the findings of Impson's study, regulated utilities are different from firms in general, and maintaining a steady dividend stream is even more important for them.

Flight to quality argument

Related to this is the idea that utility companies that offer constant high dividend yields represent a stable and reliable investment. Modigliani and Miller (1966) felt that electricity utility behaviour provided 'prime examples of the dividend stabilization process.' In other words, utility companies that do not decrease their dividend yields may experience a 'flight to quality', whereby other stocks (even other regulated utility stocks) that have lowered their dividend payments encourage investors who seek to retain exposure to the market to invest in those stocks that have not altered their dividend yield pattern (Impson, 2000). This is another reason why companies, particularly regulated utilities, are not likely to reduce their dividend payout/yields in order to fund capital expenditures.

2.5 Conclusions

In conclusion, a review of the literature shows that both theory and empiricism support the notion that firms in general are reluctant to alter dividend payouts. In the case of regulated utilities there is even stronger evidence that payouts will be held at current levels in the absence of extreme financial stress. Only in such extreme cases would a regulated utility voluntarily reduce its dividend payout.

Chapter 3

AER's empirical evidence

3.1 Introduction

In this section we examine the sample of 10 ASX listed businesses that were chosen by the AER to test how representative these businesses are of a benchmark regulated electricity transmission businesses. We examine a number of characteristics of these businesses and the behaviour of high yield business such as Envestra and ConnectEast, which sheds light on the requirements of investor clienteles in the regulated business sector.

3.2 Empirical evidence on dividend yields

Analysis of AER sample

The AER derived its assumed dividend yield of 3.5 percent for a regulated business with a large capital expenditure program based on the observation of this yield among a sample of 10 capital expenditure intensive business. The Allen Consulting Group does not consider that the sample of businesses relied upon by the AER is representative of TransGrid, or the position of a regulated energy transmission utility that is undergoing a temporary spike in its capital expenditure program.

Characteristics of AER's Powerlink sample

For the AER's sample of 10 businesses we have calculated the average capital expenditure, operating cash flow, net dividend yield, payout ratio and gearing level for the period from 2003 to 2006. For each business the movement in the index of capital expenditure over the period was calculated and averaged to yield the 'Average Capital Expenditure Index' shown in Table 3.1 below.

Table 3.1 indicates that the AER's sample showed a considerable spike in capital expenditure over the three years to 2006, with annual capital expenditure doubling during this period. At the same time we find that there has been a similarly large growth in Operating Cash Flow among the businesses.

Table 3.1

AER SAMPLE: PERFORMANCE INDICES 2003-2006

	Index Value at:				Absolute values:	
Index	2003	2004	2005	2006	2003	2006
Capital Expenditure	1.00	1.38	1.86	2.10	$745m	$1,561m
Operating Cash Flow	1.00	1.45	1.96	2.70	$1,276m	$3,441m
Dividend Payout	1.00	0.83	1.02	1.08	53.1%	57.4%
Dividend Yield	1.00	0.85	0.86	0.89	4.09%	3.64%
Debt Gearing	1.00	1.12	1.17	1.17	28.1%	32.8%
Share Price	1.00	1.27	1.69	1.81	$11.70	$21.10

Source: Bloomberg Note: excludes Zinfex and Rinker, whose data period was shorter but described similar trends.

The implicit logic of the AER's proposition in the Powerlink case was that a business faced with large capital expenditure outlays would not rely on external finance, but reduce its payout ratio, and thereby reduce the dividend yield (assuming the new investment at least maintained the price per share). In Table 3.1 we find there was some decrease in the average dividend yield of the AER sample from 2003 to 2006. However, this was not due to a reduction in the payout ratio, which fell at first but recovered to be 8 percent ahead of its 2003 position (i.e. the payout ratio increased from 53.1 percent to 57.4 percent).

What happened between 2003 and 2006 is that the market price of shares rose considerably (almost doubled), and even though the payout ratios increased on average, this effect was swamped by share price growth, resulting in a decline in the dividend yield.

In Table 3.1 we find that the debt gearing of the AER's sample increased only minimally during the period. The minimal increase in market gearing is due to the fact that during this period there was a rapid increase in equity values based on improved profitability outlooks for firms unconstrained by regulatory oversight. In these circumstances increases in debt were being almost matched by increases in equity values.

The AER sample of firms also undertook several new equity issues, as shown in Table 3.2, for which the equity could have been applied to the increasing capital expenditure requirements (on average). For Zinifex the equity issues were very substantial, although in other cases they were relatively small compared with the underlying business. Nevertheless, this indicates that firms in the AER sample were undertaking SEOs at a time when payout ratios were increasing. Again, this indicates behaviour contrary to that implied in the AER's logic: that infrastructure businesses would reduce their payout ratio before resorting to new equity issues.

Table 3.2

EQUITY OFFERINGS BY AER SAMPLE COMPANIES, 31/12/03 – 31/12/06

Date	Company	Shares offered (million)	Share Price ($A)
10/2006	Bluescope Steel	17.9	6.7
9/2004	Bluescope Steel	7.5	8.8
4/2006	Downer EDI	14.9	8.4
12/2004	Downer EDI	56.2	4.6
6/2006	Rio Tinto	6.9	76.0
6/2006	Zinifex	26.6	10.9
4/2004	Zinifex	500.0	1.9

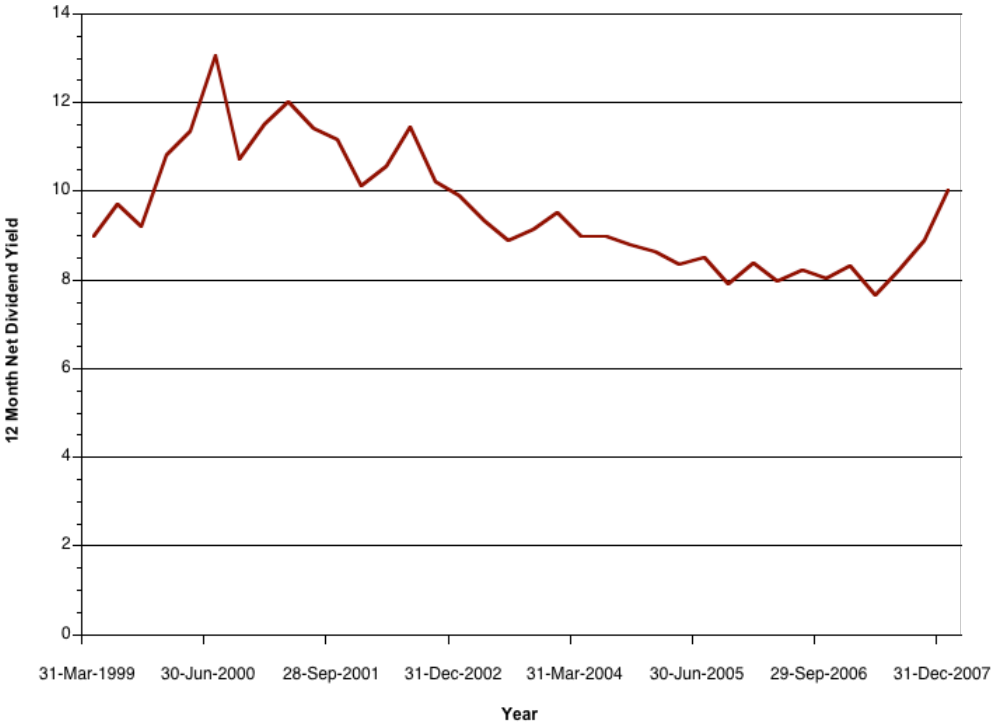
Source: Bloomberg

3.3 Envestra case study

We have undertaken analysis of a gas utility, Envestra, in order to investigate the trends it has demonstrated in its capital expenditure program and dividend yield. In recent years the growth of capital expenditure has not been in the order that would require equity issues to be made.

Figure 3.1

ENVESTRA: INDEX OF DIVIDEND YIELD



Source: Bloomberg

The dividend yield of Envestra since 1999 is shown in Figure 3.1 above. We find that the dividend yield has ranged from 8-12 percent, and was recently in the middle of that range at approximately 10 percent. Envestra has pursued a policy of paying out most of its free cash flow to its security holders. Envestra's dividend yield has been affected by the movement of interest rates and its share price, rather than by a shift in payout policies.

Despite its payment of consistent dividends and in recent years, a decline in the long-term debt position, Envestra has at times undertaken SEOs to raise cash.[4] ACG believes that Envestra's behaviour is based on the importance of maintaining a high dividend yield and to maintain a steady dividend stream that is desired and valued by the majority of its shareholding clientele. Were Envestra to be involved in a major capital expenditure program it is likely that significant new equity raisings would be required, given that there is limited scope to increase gearing.

These findings suggest that Envestra has a history of maintaining high and stable distributions, and issues new equity when there is a shortage of cash flow.

3.4 ConnectEast Case Study

ConnectEast Group Limited was floated in November 2004, raising $1.09 billion for the construction and operation of the Mitcham to Frankston Freeway project. Since 2004, ConnectEast has been engaged in the construction of the freeway, which is due to commence operations in the first half of 2008. No revenue has been earned by the company since it floated, but in spite of this the company has been paying regular distributions to its security holders. A research report by UBS dated 3 November 2006 expected a dividend per share of 6.5 cents for the next three years, increasing to 7 cents once the business had a full year of revenues (in 2009). As displayed in Table 3.3, the dividend yield was forecast to be 4.9 percent until the business began operations, when the yield was expected to rise to 5.3 percent. Without a revenue stream, the yield was expected to be 92 percent as high as when revenues would become available.

Table 3.3

CONNECTEAST: DIVIDEND AND YIELD ACTUALS AND FORECASTS

	Dividend per share (c)	Dividend Yield (%)
FY 06	6.5	4.9
FY 07	6.5	4.9
FY 08	6.5	4.9
FY 09	7.0	5.3

Source: Craig Stafford & Scott Kelly (3 November, 2006), 'ConnectEast Group: PT upgrade, but beware of systems and traffic risk' *UBS Investment Research*.

During the construction period ConnectEast has progressively raised more debt finance, and its gearing has increased. At the same time, there have been three new equity issues subsequent to the float in 2006 and 2007, raising approximately $33 million.

[4] The following equity issues have been made by Envestra since its IPO in 1997: March 2002, $67.5 million; May 2006, $24.67 million; and May 2007, $15.99 million.

The observation of an infrastructure business paying a relatively high yield to security holders during a period of high capital expenditure intensity when it has no revenues at all is the antithesis of the process that the AER has assumed, whereby it was assumed that dividends would be restricted to avoid reliance on an external equity injection. The reason that ConnectEast has provided a relatively high yield to investors even in the absence of any revenues is that it has attracted a clientele of investors, who demand a relatively high and steady dividend stream. If that steady stream of dividends had been cut in the past two years it would most likely have had a significantly negative impact on the ConnectEast share price, as has been documented in the academic studies reviewed above.

3.5 Summary and conclusions

The AER has suggested that a group of businesses with high capital expenditure growth can be expected to provide a reasonable proxy for the specific dividend yield characteristics of regulated utilities. However, the characteristics of regulated utility investments are important, in particular the fact that high yielding regulated utility businesses attract a clientele of investors who demand stable and continuing dividends irrespective of temporary spikes in capital expenditure. Academic evidence confirms that any reduction in the dividend by regulated businesses is severely punished by investors. We therefore conclude that the AER's proxies are inappropriate.

The AER did not comment on the process that was followed by its sample of 10 businesses when confronted with a need to expand the capital expenditure program. Presumably, the AER would have envisaged a sequence in which the high capital expenditure program required these firms to reduce their payout ratios in order to provide additional equity to support increased debt.

Our analysis of the AER's sample businesses shows that in recent years their increasing capital expenditure program has not been accompanied by a reduction in dividend payout, but rather the opposite. Contrary to the process envisaged or implied in the AER's analysis, both the absolute dividend payments and the dividend payout ratio of the AER's sample increased during the period of increasing capital expenditure intensity (with the dividend yield declining only by reason of large increases in share prices).

Finally, our analysis of two case studies supports the view that it is rational for high yielding businesses attracting a specific clientele to maintain a high dividend yield in the face of a spike in capital expenditure requirements, even if this requires external equity injections. In the case of Envestra we observe seasoned equity offers in conjunction with the maintenance of a high dividend yield. In the case of Eastlink we observe that even though the business has not yet earned any revenue due to its construction phase, it has paid distributions earning a dividend yield of 4.9 percent and has made several equity issues.

In summary, we conclude that for regulated utility there will be a strong reluctance to reduce the dividends due to a spike in capital expenditure requirements, and that this reluctance would be rational. The clienteles attracted to these businesses demand a high and stable yield, and such a short term response would most likely increase its cost of attracting capital in the future. We therefore conclude the most reasonable assumption to apply is that regulated utility businesses will seek to maintain their payout rate, and under the benchmark constraint of a 60 percent debt gearing level, maintain a dividend yield on equity that is in line with the yields of its peers, and have recourse to external equity sources if a shortage of cash flow remains.

Chapter 4

Current evidence on dividend yields

4.1 Introduction

In this chapter we review the evidence relating to the current range of dividend yields observed for regulated businesses as well as the sample used by the AER in its Powerlink decision.

4.2 The AER's sample in the Powerlink decision

In order to derive a benchmark dividend yield, the AER sampled the dividend yields and capital expenditure growth rates of the listed resource and industrial companies shown in Table 4.1 below.

Table 4.1

AER SAMPLE: NET DIVIDEND YIELD AND CAPITAL EXPENDITURE GROWTH RATE

Company	Net dividend yield (%)	Capital expenditure growth rate (%)
Alcoa	1.8	8.6
BHP Billiton	1.7	10.8
Bluescope Steel	4.6	10.5
Boral	4.1	8.6
CSR	4.3	9.0
Downer EDI	3.1	7.2
OneSteel	3.5	6.3
Rinker	2.2	8.6
Rio Tinto	1.8	11.5
Wesfarmers	6.4	8.2
Zinifex Limited	4.9	11.8
Average	3.5	9.2

Source: AER Decision – Queensland transmission network revenue cap 2007-08 to 2011-12, p. 100

As discussed in chapter 3, we think these companies cannot be used to derive a benchmark dividend yield for a regulated utility business. Nevertheless, we have updated the net dividend yield calculation for the AER sample in Table 4.2 below. We find that the yield of the AER sample (less Rinker, which has been acquired) is currently 4.54 percent if Zinifex is included, or 3.65 percent if Zinifex is excluded. The recent rise in yields is attributable to the general reduction in market prices.

Table 4.2

AER SAMPLE: NET DIVIDEND YIELD

Company	2006 (AER)	2008
Alcoa	1.8	1.69
BHP Billiton	1.7	1.62
Bluescope Steel	4.6	6.33
Boral	4.1	5.63
CSR	4.3	4.44
Downer EDI	3.1	3.37
OneSteel	3.5	2.62
Rinker*	2.2	
Rio Tinto	1.8	1.73
Wesfarmers	6.4	5.43
Zinifex Limited	4.9	12.58
Average	3.5	4.54
Average (excluding Zinifex)		3.65

Source: AER Decision and Bloomberg Note: * Rinker has been acquired

4.3 Current dividend yield of the regulated infrastructure sector

ACG believes that it is not appropriate to apply a 3.5 percent (or more recently a 3.7-4.5 percent) dividend yield to calculate the equity transaction cost allowance if this is based on a non-regulated utility sample, even if that sample is drawn from companies demonstrating high capital expenditure intensity. As discussed in the previous chapter, regulated high yield businesses must cater to their investing clientele, and will therefore raise capital through internal sources and new equity issues rather than reducing the dividend payout. Therefore it is preferable to use the observed dividend yield for high yield regulated businesses even if they are not currently experiencing a capital expenditure spike.

Table 4.3 below shows a recent analysis of dividend yields for this sector undertaken by UBS. The average yield calculated as at 21 September, 2007 was 8.6 percent. Even though the average dividend yield of these businesses has increased even in more recent months, as we saw in the case of Envestra, a yield of 10 percent is not necessarily at the top of the cycle for such a business. Therefore, the adoption of an 8.6 percent dividend yield could be considered appropriate.

Table 4.3

UBS SAMPLE: NET DIVIDEND YIELD

Company	2007
SP AusNet	9.2%
Spark Infrastructure Group	9.5%
Envestra	9.0%
DUET	8.3%
Australian Pipeline Trust	7.7%
Babcock & Brown Infrastructure	9.0%
Babcock & Brown Windpartners	8.5%
Challenger Infrastructure Fund	8.9%
Babcock & Brown Power	9.1%
Hastings Diversified Utilities Fund	7.6%
Transfield Services Infrastructure Fund	7.9%
	8.6%

Source: Andrew Wooley & David Leitch (21 September 2007), 'High yield' Utilities sector, *UBS Investment Research,* p.2.

4.4 Conclusions

Since we last reviewed market evidence of dividend yields earned by regulated utility businesses there has been a decline in equity values that has caused yields to rise. While the September 2007 yield of 8.6 percent reported by UBS is slightly higher than the 8.1 percent that was observed in 2006 when many regulated utility businesses were performing relatively well against the market, it is lower than the yields seen more recently, when the regulated sector has under-performed the market. Therefore an 8.6 percent yield could be a reasonable estimate of the long-term dividend yield that reflects varying.

The AER has questioned whether it is appropriate to apply an empirically determined dividend yield when a majority of the listed entities observed in the Australian market do not conform to the standard company structure where tax is paid and distributions to shareholders are made subsequently. Instead, a number of the listed entities are structured so that distributions in the form of interest and return of capital are made to shareholders.

According to the AER's reasoning, this casts doubt on the ability of regulated entities structured as tax paying companies to provide a yield of 8 percent or more to shareholders. However, the distributions are structured to permit a high dividend yield when making accounting losses (i.e. when making accounting losses). The fact that these structures exist underscores the importance of high yield to their shareholders.

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