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Rate of Return Guidelines
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Further submission on rate of return guidelines

Goldfields Gas Transmission Pty Ltd (GGT), operator of the Goldfields Gas Pipeline on behalf of the Goldfields Gas Transmission Joint Venture, attended the rate of return workshop convened by the Economic Regulation Authority (ERA) on 7 November 2013.

GGT appreciated the opportunity which the ERA provided, during the course of the workshop, for an open and wide ranging discussion on the issues raised in the Authority's background papers, *Cost of Debt Comparative Analysis* (Debt Paper) and *A potential approach to estimating the return on equity* (Equity Paper). In this letter, GGT makes some further comments clarifying and extending the views we expressed during the workshop.

In making these further comments, we refer to the ERA's *Draft Rate of Return Guidelines* (Draft Guidelines) and *Explanatory Statement for the Draft Rate of Return Guidelines* (Explanatory Statement), and to the submission GGT made on these documents on 19 September 2013 (Draft Guidelines Submission).

At the workshop, discussion on estimation of the rate of return on debt preceded discussion on return on equity issues. The return on debt discussion was focused on specific methods of estimation ("on-the-day" versus "trailing average portfolio"). The return on equity discussion spanned models, estimation methods, and the ERA's proposed overall approach to estimation of a rate of return on equity which could meet the requirements of rule 87 of the National Gas Rules (NGR).

The allowed rate of return of rule 87 is to be a weighted average of the rate of return on equity and the rate of return on debt, and estimation of the rate of return on debt is to have the same outcome as estimation of the rate of return on equity: the result – whether it is the estimated rate of return on debt or the estimated rate of return on equity – is to contribute to the achievement of the allowed rate of return objective.

We therefore begin with further comments on the overall approach to estimation of the rate of return on equity. We see the approach of the Equity Paper as being further developed than the

proposals of the Debt Paper. In consequence, the Equity Paper, and the workshop discussion on estimation of the rate of return on equity, raised issues which are important to, but which were not addressed in, the Debt Paper and in the discussion on estimation of the rate of return on debt. We raise some of these issues in our further comments on estimation of the rate of return on debt which follow.

Rate of return on equity

In the paragraphs which follow, we examine the five steps of the approach to estimation of the rate of return on equity which is summarized in Figure 1 of the Equity Paper, using the paper's worked example. We then look back over the five steps, and comment on the structure of the approach. Taken on their own, the five steps appear workable, but when we look at the way in which they are applied, they do not lead to the allowed rate of return required by rule 87.

We understand that the ERA intends that the five steps of the approach to rate or return on equity estimation be applied as follows.

1. Prior work has established (we believe, incorrectly, for the reasons which we set out in our Draft Guidelines Submission) that the Sharpe-Lintner Capital Asset Pricing Model (CAPM) is, at the present time, the only model relevant for informing the estimate of the rate of return on equity.
2. The range of possible values for the equity beta of the CAPM is 0.5 to 0.7 (a range which we believe, for the reasons set out below, cannot be substantiated). This range has been obtained by combining information from:
 - (a) empirical studies conducted by the ERA;
 - (b) observed betas for Australian listed utilities reported by Bloomberg and Standard and Poor's; and
 - (c) advice which Professor Henry provided to the AER in 2009.

In the absence of other influencing factors, an estimate of 0.6 could be adopted for the equity beta (but only if the unsubstantiated range of 0.5 to 0.7 is accepted).

The range of the market risk premium (MRP) is 5.0% to 7.5%. An estimate of 6.0% is consistent with previous regulatory practice, historical data, and a range of other estimates.

3. Using the CAPM (although in a way which, for reasons we set out in our Draft Guidelines Submission, is conceptually incorrect), and the values of beta and the market risk premium from step 2, an estimate of the rate of return on equity is:

$$E(r) = r_f + \beta \times \text{MPR} = 3.45\% + 0.6 \times 6.0\% = 7.05\%.$$

The estimate of the risk free rate, r_f , has been made as a 20 day average of yields on Commonwealth Government bonds with terms to maturity of 5 years.

4. Each of the parameters of the CAPM, and the overall return on equity, is then assessed against a range of other material for reasonableness of the estimate derived in step 3.

In the worked example:

- (a) the estimate of the risk free rate is examined against comparable rates over recent decades;

- (b) empirical studies of the performance of the CAPM, which indicate that the model tends to underestimate returns on low beta assets, are taken as indicating that the estimate of beta should be at the top of the range;
 - (c) the level of equity market volatility indicated by the ASX 200 VIX, other indicators of investor perceptions of risk, and evidence from market analysts imply that 6.0% is a reasonable estimate of the market risk premium; and
 - (d) the estimate of the rate of return on the market portfolio which can be made using the CAPM and the estimates for the risk free rate and the market risk premium is well within the 95% confidence interval for market returns.
5. Taking into account all of the relevant information, an expected rate of return on equity of 7.65%, obtained using an equity beta of 0.7, would be appropriate for a benchmark efficient gas business.

Were we to apply the five steps in the way set out in the Equity Paper, we would expect to encounter the following difficulties. The most fundamental of these is that there is no consideration of whether the estimate of the rate of return on equity is a rate which can contribute to the allowed rate of return objective. Were we to overlook this fundamental problem, we would still find an approach to estimation of the rate of return on equity using the CAPM which cannot lead to the allowed rate of return required by rule 87.

No consideration of whether the estimate of the rate of return on equity is a rate which can contribute to the allowed rate of return objective

At no step in the approach is consideration to be given to whether the estimate of the rate of return on equity is a rate which can contribute to the allowed rate of return objective. More specifically, at no step is consideration to be given to the question of whether the estimate of the rate of return on equity is an estimate for a benchmark efficient entity with a similar degree of risk as that which applies to the service provider in respect of the provision of reference services.

The approach of the Equity Paper implicitly assumes that, provided the correct model (the CAPM) is used, and estimates are made of the parameters of that model using the usual methods, the estimate of the rate of return on equity obtained will meet the requirement of rule 87(6).

There is no reason to expect that this will be the case. There is no correct model. All models, including the CAPM, have weakness arising from the way in which they are constructed, or from the way in which they are applied in specific circumstances. Moreover, as was recognised in the Explanatory Statement, the estimates used in applying the CAPM are imprecise.

These were issues we raised in our Draft Guidelines Submission. They were also issues raised by the Australian Energy Market Commission (AEMC) when it amended rule 87 in November 2012. Rule 87 now requires that any estimate of the rate of return on equity which is to be used in calculating a candidate allowed rate of return be tested against the requirement that it contribute to achievement of the allowed rate of return objective. This critical step in the application of rule 87 is absent from the approach of the Equity Paper.

Use of the CAPM alone would not lead to an estimate of the rate of return on equity which contributes to achievement of the allowed rate of return objective

Even if the CAPM were the correct model, there is no reason to suppose that the estimates made of the parameters of that model can lead to an estimate of the rate of return on equity which contributes to achievement of the allowed rate of return objective.

Equity beta

The range for beta, we are advised in the Equity Paper, has been obtained from beta estimates made by the ERA and by Professor Henry, and from observed betas for listed Australian utilities reported by Bloomberg and Standard and Poor's.

The use of betas reported by Bloomberg and Standard and Poor's is new. It was not considered by the ERA in its Draft Guidelines, or in the associated Explanatory Statement. We have no reason to expect that these estimates of beta differ significantly from the estimates which have been made by the ERA, by Professor Henry, and by others involved in the "rate of return debate". However, the Equity Paper provides no information on the reported betas, on the ways in which they have been estimated, and on how they are to be used to obtain the range for beta.

The estimates of beta made by the ERA and by Professor Henry were made using a number of different estimation methods. Those methods were reported as producing similar results and, in Table 1 below, we summarize only the ordinary least squares (OLS) estimates (which have been relevered for gearing of 60%).

We also include in Table 1 two further sets of beta estimates. One of these was made by financial consultants SFG for the Energy Networks Association, and submitted to the Australian Energy Regulator (AER) during consultation on its rate of return guidelines. The second set of beta estimates was made by advisors CEG for transmission pipeline service provider DBP, and was submitted to the ERA as part of DBP's submission on the Draft Guidelines.

Table 1: OLS beta estimates

	AGK	ENV	APA	GAS	DUE	HDF	SPN	SKI	AAN
Henry, 2009									
Weekly returns	1.24	0.30	0.76	0.38	0.36	1.01	0.28	0.79	1.26
Monthly returns	0.62	0.39	0.74	0.28	0.41	0.85	0.37	1.11	1.07
ERA, March 2012									
Weekly returns	1.30	0.33	0.78	0.42	0.38	1.16	0.32	0.34	1.29
Monthly returns	0.95	0.40	0.91	0.51	0.48	0.72	0.51	0.64	1.16
SFG, June 2013									
Four weekly returns	0.32	0.65	0.57	0.29	0.59	0.81	0.26	0.39	0.53
ERA, August 2013									
Companies in 2011 data set:									
2011 study		0.37	0.60		0.30	1.19	0.27	0.52	
2013 study		0.37	0.61		0.23	1.20	0.12	0.54	
Data to April 2013		0.37	0.61		0.23	1.20	0.05	0.54	
CEG, September 2013									
Replication, ERA data to April 2013		0.39	0.63		0.32	1.23	0.54	0.27	

The names of the companies represented by the company codes in the heading of Table 1 are listed in Table 2.

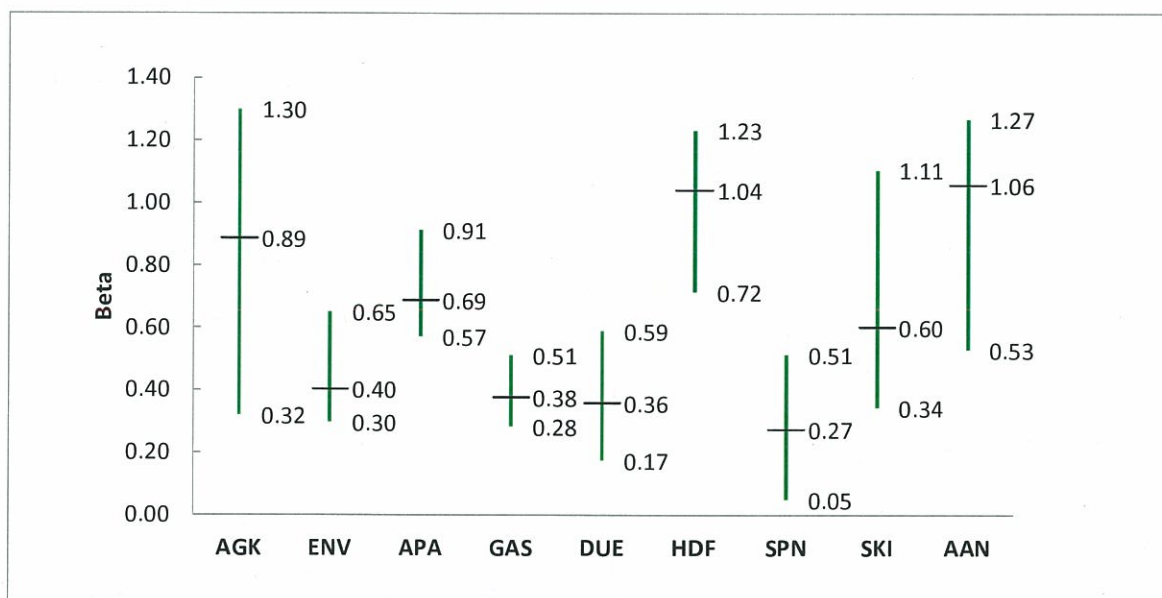
Table 2: Company codes

Code	Company	Code	Company
AGK	AGL Energy Limited	HDF	Hastings Diversified Utility Fund
ENV	Envestra Limited	SPN	SP AusNet
APA	APA Group	SKI	Spark Infrastructure Group
GAS	GasNet Australia	AAN	Alinta Limited
DUE	Duet Group		

The range of the betas, and the mean of the range, for each of the companies represented in Table 1, are plotted in Figure 1.

We note that the ranges shown in Figure 1 are the ranges for the beta estimates from the empirical studies of the ERA, Professor Henry, SFG and CEG. They are not confidence intervals around the mean values shown in the figure.

Figure 1: OLS beta estimates: ranges and means



The beta estimates in Table 1 and Figure 1 show considerable variability. We cannot exclude the possibility that at least a part of this variability is associated with the estimation of betas from relatively small samples of “noisy” returns data. There are also potentially important differences between the companies for which the estimates have been made. For example, AGL Energy is a retailer rather than a regulated pipeline service provider, and Alinta has experienced financial difficulties and no longer exists as a company with traded shares.

With these issues in mind, we make two observations on the beta estimates:

- they do not support the view that the range of possible values for beta is 0.5 to 0.7; and
- the substantial variation indicates that Australian electricity network and gas pipeline service providers do not have similar betas and, in consequence, do not face comparable levels of systematic risk.

The second of these observations is particularly important to the application of rule 87. The Draft Guidelines and the Explanatory Statement proposed, and Equity Paper appears to assume, that comparable levels of systematic risk justify construction of a benchmark entity from data for regulated Australian electricity network and gas pipeline service providers with traded shares.

However, the evidence clearly indicates that the levels of systematic risk of those businesses are not comparable, and that systematic risk cannot provide a basis for concluding that the regulated Australian electricity network and gas pipeline service providers with traded shares have a similar degree of risk as that which applies to a service provider in respect of the provision of reference services.

Market risk premium

In our Draft Guidelines Submission we explained why use of an independently estimated market risk premium in the CAPM is conceptually incorrect.

However, if an independently estimated market risk premium is to be used in the application of the CAPM, then it should be assessed more carefully than along the lines proposed in paragraphs 44 to 48 of the Equity Paper.

In 1985, Mehra and Prescott found, using US data, that the observed market risk premium is an order of magnitude larger than can be explained as a premium for bearing risk using the standard models of financial economics.¹ This "equity premium puzzle" has not been solved.

At the present time, financial economics offers at least five broad approaches to explaining the market risk premium:

- (a) as a premium for idiosyncratic and uninsurable income risks;
- (b) as a premium for low frequency, high consequence economic disasters (such as the Global Financial Crisis);
- (c) as a consequence of borrowing constraints and transaction costs;
- (d) as a premium for the liquidity of certain money-like financial assets; and
- (e) as the effect of taxes and regulation, particularly as these affect superannuation and pension funds, and the returns available to equity investments.

In these circumstances, it is not at all obvious what the equity market volatility implied by ASX200 VIX, or investor perceptions of risk generally, might imply about the market risk premium. Much more careful and considered reasoning than that indicated would be required to reach the conclusions of the Equity Paper.

That the Australian market risk premium has a very long term average of around 6.0% tells us little about what may be driving the premium at the present time, and about the premium which might be expected during the five years of "the next access arrangement period".

Risk free rate of return

We advised in our Draft Guidelines Submission that we concurred with estimation of the risk free rate from yields on Commonwealth Government bonds.

However, since equity returns are not for a defined period set in a contract with shareholders, there is no reason to limit the term to maturity of the Commonwealth Government bonds used to estimate the risk free rate to 5 years. The estimate of the risk free rate should be made from yields on bonds with the longest term to maturity currently available and which are extensively traded in the Australian financial market.

¹ Rajnish Mehra and Edward C Prescott (1985), "The Equity Premium: A Puzzle", Journal of Monetary Economics, 15, pages 145-161.

Furthermore, we would be concerned, for two reasons, to see the ERA rate of return guidelines endorse consideration of the of the risk free rate along the lines set out in paragraph 41 of the Equity Paper.

First, the risk free rate is estimated from yields on bonds which are issued by the Commonwealth Government within the context of particular budgetary and monetary policy settings. Conclusions like those drawn in paragraph 41 cannot be drawn without a much more comprehensive assessment of the macroeconomy and the Government's economic policy settings.

Second, the macroeconomic context which underlies the consideration of the risk free rate in paragraph 41 highlights one of the problems of using the CAPM, a static partial equilibrium model, to make an estimate of the rate of return on equity which is to apply during a future period. Irrespective of whether that period is the "near term" or the five years of the next access arrangement period, the CAPM is not well adapted to the estimation of equity returns in a dynamic economy.

Consideration of other relevant material

In our view, arguments of the type found in paragraph 42 of the Equity Paper do not constitute proper consideration of other relevant material.

The evidence may indicate that the CAPM underestimates the returns on low beta assets, but that is not a reason for taking as the estimate of the equity beta the beta at the top of the proposed range (or, indeed, for taking as the estimate of beta any beta in the proposed range). That the evidence indicates that the CAPM underestimates the returns on low beta assets is an indicator of the limitations of the model itself. If those limitations are acknowledged, then the appropriate way of proceeding is via models which seek to address the acknowledged limitations. (Of course, those models may, themselves, have other limitations). It is not via an arbitrary adjustment to a model parameter.

If the CAPM's underestimation of rates of return on low beta assets is acknowledged, then another estimate of the rate of return on equity might be made using Black's CAPM. Black's CAPM was developed specifically to address this issue of underestimation. Results from the CAPM and from Black's CAPM could then be used to make a more informed estimate of the rate of return on equity. As we noted in our Draft Guidelines Submission, Black's CAPM is routinely applied in asset pricing studies, and the model, and its econometric estimation, are discussed at length in the standard textbook on financial econometrics.

Overall return on equity

With estimates of 3.45% for the risk free rate, and 6.0% for the market risk premium, the CAPM implies a return on the market portfolio of 9.45%.

This return on the market portfolio may, as paragraph 49 of the Equity Paper advises, be within a 95% confidence interval for a long data series. However, the range of that interval, 8.8% to 14.8%, indicates low precision.

In our view, returns on the market portfolio over most of the last 100+ years are likely to be irrelevant to the current return on the market portfolio. Over 100+ years the types of firms issuing equity, and the composition of the equity market, will have changed significantly as the economy has evolved from its agricultural base in the late nineteenth century.

Considerations such as those in paragraphs 49 to 51 of the Equity Paper are quite inconsistent with the requirement of rule 87(7) that, in estimating the rate of return on equity, regard must be had to

the prevailing conditions in the market for equity funds. They certainly do not allow the conclusion that an estimate of 9.45% for the next five years is a reasonable expectation.

In the context of assessment of the overall return on equity, we reiterate our earlier view that the CAPM is not well adapted to the estimation of equity returns in a dynamic economy.

Estimating the rate of return on equity

Were we to apply the approach of the Equity Paper, we would not obtain an estimate of the rate of return on equity which we could claim was an estimate which contributed to achievement of the allowed rate of return objective. Given the limitations of the CAPM, and the imprecision in the parameters of the model, only by chance would the estimate obtained be an estimate of the rate of return on equity for a benchmark efficient service provider with a similar degree of risk as that which applies to the service provider in respect of the provision of reference services.

These issues were raised in the discussion on estimation of the rate of return on equity at the 7 November workshop.

One view put forward was that, where "new evidence" indicated that the estimate of the rate of return on equity made using the approach of the Equity Paper may not be that of the benchmark efficient entity, then the analysis should "circle back" through the five steps of the approach to allow the consequences of the new evidence to be taken into account.

We are not clear on how this could be done. If the CAPM were retained as the sole model appropriate to estimation of the rate of return on equity, and the parameters of that model were to be properly estimated, new evidence could only be taken into account by distorting the use of the model. The CAPM has limitations, and these should be recognized when the model is used in estimation of the rate of return on equity. The effects of those limitations should not, in our view, be confounded with the effects of essentially arbitrary distortions of the model to produce a result indicated by a particular piece of new evidence.

The better approach, in our view, is use of the CAPM with other financial models, other estimation methods, and other data and evidence, in a comparative analysis undertaken with the explicit purpose of establishing a rate of return on equity which contributes to achievement of the allowed rate of return objective. Such a comparative analysis would recognize and take into account the limitations of:

- (a) particular financial models, including the CAPM;
- (b) specific estimation methods to be used with those models;
- (c) the data to be used in estimation; and
- (d) the estimates, including the estimates of beta, made using those models, methods and data.

This comparative analysis would be no more than what is required under rule 87 of the NGR.

It would need to be preceded by proper construction of the benchmark entity from data for relevant comparable entities which have been shown to be efficient, and which have been shown to have degrees of risk similar to that which applies to the service provider in respect of the provision of reference services.

As we noted above, the estimates of beta for the Australian electricity network and gas pipeline service providers with traded shares do not indicate that those entities have comparable levels of systematic risk. There is, then, no reason to expect that a benchmark constructed from data for the electricity network and gas pipeline service providers would have systematic risk similar to the systematic risk of a service provider in respect of its provision of regulated services.

In our view, as we indicated in our Draft Guidelines Submission, attempting to benchmark by reference to systematic risk conflates:

- (a) the risks to which the benchmark entity is exposed, and which are to be in degree similar to the risks of the service provider in respect of the provision of reference services; and
- (b) the risks for which investors might be compensated through the market determined prices of financial assets.

The first of these classes of risk – the risks to which the benchmark entity is exposed – must be assessed before any consideration can be given to risks in the second class. The benchmark entity must be established with reference to the risk profile of the service provider in its provision of reference services before any consideration is given to the risks for which investors are to be compensated through the prices of financial assets.

If estimation of the rate of return on equity were to proceed without proper construction of the benchmark efficient entity, there would be no reason to expect that the rate of return on equity obtained would contribute to achievement of the allowed rate of return objective, and no reason to expect that a candidate rate of return calculated from that estimate would achieve the objective.

Rate of return on debt

Unlike the Equity Paper, the Debt Paper does not set out an approach to estimation of the rate of return on debt. Rather, it assesses six options by scoring them against a set of criteria which, we are advised, were derived from the National Gas Objective.

Preferred Options B and C

Options B and C, from among the six assessed, were assessed as best complying with the criteria. They are:

- Option B: annual reset of cost of debt estimated as base rate (swap rate, not risk free rate), plus medium term debt risk premium; and
- Option C: base rate (swap rate, not risk free rate) set at commencement of each access arrangement period, annual resets of medium term debt risk premium.

Options B and C are essentially “on-the-day” approaches to estimation of the rate of return on debt. They estimate the rate of return on debt to be used in calculating the service provider’s allowed rate of return as the rate required by investors in an entity which raises debt at the time the regulator is to make a decision on the service provider’s proposed access arrangement revisions for the next access arrangement period.

We are concerned that the criteria used in assessing the six options, and which have led to the ERA preferring Options B and C, are not easily reconciled with the National Gas Objective.

More importantly, the National Gas Objective is at the top of a hierarchy of criteria within the scheme of the NGL and the NGR. In the matter of determining the allowed rate of return, the requirements of rule 87(8) and the allowed rate of return objective must be considered before any consideration is given to the National Gas Objective. An option which might be used to estimate

the rate of return on debt should be capable of satisfying the requirement of rule 87(8): the estimate of the return on debt should contribute to achievement of the allowed rate of return objective. That is, the option should be capable of producing an estimate of the rate of return on debt which contribute to achievement of a rate of return commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the service provider in respect of the provision of reference services.

The criteria under the heading "accounting for efficient financing costs" have some relevance to the efficient financing costs of the benchmark. However, none of the other criteria is likely to lead to a method for estimating the rate of return on debt which would contribute to a rate of return commensurate with the efficient financing costs of the benchmark efficient entity of rule 87. There is no reason to expect that preferred Options B and C can lead to estimates of the rate of return on debt which can achieve the allowed rate of return objective.

More fundamentally, the requirement for an estimate of the rate of return on debt which contributes to achievement of the allowed rate of return objective precludes the type of options generation and assessment reported in the Debt Paper. An option for debt financing which is not an option used by, and hence observable in the data from, the benchmark efficient entity cannot lead to the rate of return required by rule 87. Options B and C of the Debt Paper are not grounded in the financing practices of the benchmark efficient entity (they could not be, that entity is yet to be constructed) and so cannot be expected to lead to the estimate of the rate of return on debt required by rule 87(8).

Trailing average approach

In our view, a trailing average portfolio approach would seem to better meet the requirement of the NGR. It seeks to mimic the practice of large corporate entities to stagger the maturities of the debt they issue to reduce the overall cost of debt and to reduce refinancing risks. We would expect to see staggered debt issuance in the benchmark efficient entity.

However, the Debt Paper rules out the trailing average portfolio approach. That approach is seen as leading to inefficiency because:

- (a) it does not reflect prevailing market conditions; and
- (b) it provides certainty of cost recovery for service providers.

We note that, although rule 87(7) requires that regard be had to prevailing conditions in financial markets when estimating the rate of return on equity, there is no equivalent provision pertaining to debt. Even if there were, the claim of inefficiency might only be made in the context of a narrow technical view of economic efficiency which, for the reasons we set out in our Draft Guidelines Submission, cannot be sustained.

Furthermore, if a trailing average portfolio approach is used, the trailing average must be derived from the circumstances of the benchmark efficient entity, and not from the specific circumstances of the service provider. The trailing average portfolio approach does not provide certainty of cost recovery for service providers.

A trailing average portfolio approach is expressly permitted by rule 87(10)(b), and we understand that the AER is developing such an approach for its rate of return guidelines.

As we said earlier, the trailing average portfolio approach seeks to mimic the financing practice of large corporate entities. We would expect that it will found in the practices of the benchmark efficient entity, and that it can lead to an estimate of the rate of return on debt which contributes to achievement of the allowed rate of return objective. Its use should not, and cannot be ruled out.

The trailing average portfolio approach should be recognized in the ERA's rate of return guidelines as one of the options available for estimation of the rate of return on debt.

Term of debt

In the Debt Paper discussions of Options B and C, there appears to be no explicit consideration of the terms of the financial assets which might be used to estimate the rate of return on debt. The indications are that the term could be five years, but may be less.

Irrespective of whether an on-the-day or a trailing average portfolio approach is used to estimate the rate of return on debt, we would expect (for the reasons we set out in our Draft Guidelines Submission) that the term be established as an average term at issuance. It is the term at issuance which drives a service provider's cost of debt, and the term to maturity of issued debt.

The term at issuance should, in our view, be established by reference to the average term at issuance of the debt of the benchmark efficient entity Work undertaken by advisory firms CEG and PwC, which the Energy Networks Association has submitted to the AER in that regulator's process of public consultation of rate of return guidelines indicated (it is not based on the benchmark efficient entity) an average term of 10 years at issuance. We would expect the term for the benchmark term to be around 10 years (it will not be five years or less).

Estimating the rate of return on debt

Irrespective of whether an on-the-day or a trailing average method is used to estimate the rate of return on debt, there is no reason to expect that the resulting estimate will contribute to achievement of the allowed rate of return objective.

Both methods embody a simple model of returns on debt and, in consequence, there is uncertainty about the quality of the resulting estimates arising from the model itself. In our Draft Guidelines Submission we proposed that estimates

As with estimation of the rate of return on equity, estimation of the rate of return on debt should proceed from a number of models, estimation methods and other data and evidence, in a comparative analysis undertaken with the explicit purpose of establishing a rate of return on equity which contributes to achievement of the allowed rate of return objective. Such a comparative analysis would recognize and take into account the limitations of:

- (a) particular financial models;
- (b) specific estimation methods to be used with those models;
- (c) the data to be used in estimation; and
- (d) the estimates made using those models, methods and data.

This comparative analysis would need to be preceded by proper construction of the benchmark entity from the data for relevant comparable entities which have been shown to be efficient and to have degrees of risk similar to that which applies to the service provider in respect of the provision of reference services. Even if each of the models provides an accurate description of the process through which rates of return are generated, unless the data used in model application are data for the benchmark efficient entity, there will be no reason to expect that the resulting estimate of the rate of return on debt can (except by chance) contribute to achievement of the allowed rate of return objective. There will be no reason to expect that a candidate rate of return calculated using that estimate of the rate of return on debt will achieve the objective.

Concluding comments

GGT remains concerned that the approach to estimation of the rate of return on equity which the ERA is proposing to include in its rate of return guidelines does not have as its focus achievement of a rate of return for the benchmark efficient entity of rule 87. The ERA's proposals for an approach to estimation of the rate of return on debt seem, to us, to be much less developed than the regulator's approach to estimation of the rate of return on equity. However, the Debt Paper, and the earlier Draft Guidelines and Explanatory Statement, all indicate development of an approach which will not lead to estimates of the rate of return on debt which contribute to achievement of the allowed rate of return objective.

We are particularly concerned with the way in which ready access to data appears to have displaced the benchmark efficient entity in estimation of the rate of return on equity and in estimation of the rate of return on debt.

Identification of the benchmark efficient entity is, as we noted in our Draft Guidelines Submission, the key to determination of the allowed rate of return.

Through their giving inadequate attention to efficiency, and to the risk of the service provider in respect of the provision of reference services, the Draft Guidelines, the Explanatory Statement and the proposals of the Equity Paper and the Debt Paper do not provide the proper basis for establishing the benchmark efficient entity required by rule 87. There is, then, no reason to expect that a rate of return determined by applying a rate of return guideline drawn from these proposals will achieve the allowed rate of return objective.

These issues are critically important in the case of the GGP. The GGP is not a utility serving large industrial, commercial and residential populations. It is a service provider to a small number of mining operations in a remote part of Western Australia.

The ERA's current rate of return guidelines proposals will impart a systematic bias to determination of the allowed rate of return for the GGP, leading to arbitrarily low reference tariffs and revenues, and to reluctance on the part of the Goldfields Gas Transmission Joint Venturers to further invest in the provision of reference services. If implemented, they will lead to outcomes contrary to the requirements of the NGR and inconsistent with the National Gas Objective.

GGT would be pleased to discuss with the ERA any issue arising from our further submission. Please contact me on (08) 6189 4594 or at john.williams@apa.com.au.

Yours faithfully

John L Williams
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