



COMPETITION
ECONOMISTS
GROUP

Cross-submissions on UCLL/UBA WACC

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1 Introduction and summary

1.1 Purpose and report structure

1. This report provides a critique of March 2014 submissions made to the Commerce Commission in the UCLL/UBA cost of capital consultation. The focus of submissions made by other parties is on two elements of the cost of capital:
 - the cost of debt calculation and the appropriateness of a term credit spread differential (TCSD) allowance; and
 - the appropriateness of setting a cost of capital that is above the midpoint estimate.
2. Consistent with this, I focus on these two issues in the remaining two sections of this report.

2 The cost of debt and the TCSD allowance

3. The calculation of the cost of debt allowance was addressed by Telecom (and their adviser PwC), Enable Services Limited and Vodafone (and their adviser Network Strategies). All of these submissions appear to accept that the objective for the Commission is to set an allowance for the cost of debt that compensates a service provider for the efficient costs they would incur in providing the service in question. For example, Network Strategies states:

The regulatory WACC should encompass the efficient cost of debt for a provider of the services in question. (p. 16)

4. Telecom and Enable Services argue that infrastructure businesses similar to the UCLL/UBA provider tend to borrow for periods longer than the standard regulatory period (of around 5 years). This is consistent with overwhelming evidence presented in my own report that such businesses tend to issue debt that has a term of around 10 years or more. On this basis:
- Enable Services proposes that the TCSD allowance be retained as a means of compensating for the higher costs of long term debt issues (assuming the length of the regulatory period is shorter than the average maturity of debt issuance); and
 - Telecom proposes that the TCSD be replaced simply by an assumed term of debt of 10 years.
5. I agree with Telecom and Enable Services' conclusion that some mechanism is required to compensate businesses for the costs associated with the efficient practice of issuing long term debt. However, in my view, neither the TCSD as currently structured in the IMs nor replacing the IM TCSD with a 10 year term assumption in the IMs is the best means of ensuring this compensation.
6. For the reasons set out in Section 5 of my March 2014 report for Chorus, I consider that the appropriate mechanism to compensate for efficient debt management practices is to:
- start by defining an efficient debt management practice; and
 - base the cost of debt allowance on the cost of implementing the so defined debt management practice.
7. In my view this will involve setting the cost of debt allowance based on 10 year trailing average of the cost of 10 year debt or based on a swap rate with the same length as the regulatory period plus a 10 year trailing average debt risk premium.

8. An allowance so structured will provide compensation consistent with, not only for the issuance of 10 year debt, but, also, consistent with the fact that long term debt is issued in order to maintain a staggered maturity and issuance profile. As explained in Section 5 of my March 2014 report, compensating for a staggered issuance profile requires some form of trailing average to be incorporated into the cost of debt allowance.
9. Network Strategies, for Vodafone, does not support the retention of the TCSD and, rather, proposes that the cost of debt allowance be simply based on an assumed term of debt issuance equal to the length of the regulatory period. However, Network Strategies does not explain how, if the efficient practice is to issue longer term debt, this will result in an a regulatory WACC that will:

...encompass the efficient cost of debt for a provider of the services in question. (Network Strategies p. 16).

10. Network Strategies does not consider any evidence about the efficient debt management practices of an infrastructure provider and, instead, appears to base its conclusion that a TCSD or similar allowance is not required on:

"...the principle that the matching of the risk-free rate (and the debt margin) with the regulatory period is sufficient to prevent over- or under-compensation of the regulated firm." (Page 1)

11. Network Strategies do not derive the existence of such a principle from first principles. Rather, they rely on the claim that such a principle is 'well accepted'.

We conclude that given the principle, accepted by most regulators (and the High Court in its recent IMs decision), that the matching of the risk-free rate (and the debt margin) with the regulatory period is sufficient to prevent over- or under-compensation of the regulated firm, no further allowances are necessary. (Page 16)

12. This claim concerning regulatory practice is at odds with the facts which I set out in Section 5 of my report and which I summarise below:

- the Commerce Commission has adopted the TCSD allowance in the IMs which clearly suggests that, at that time, it believed that further allowances were necessary;
- in Australia, the Australian Energy Regulator (AER), the ACCC and all state based regulators tend to either set a 10 year term for the cost of debt (despite the term of the regulatory period being shorter) or provide allowances aimed at compensating for the fact that infrastructure businesses do issue 10 year debt. Moreover, the AER has adopted a trailing average of 10 year debt (the same approach that I recommend the Commission adopts);
- to the best of my knowledge, all US federal and state based energy regulators set the cost of debt allowance based on the actual term of the debt issued by the

regulated entity and a trailing average basis (a similar approach to that I recommend the Commission adopts); and

- Ofgem in the UK sets the cost of debt based on 10 year trailing average of the cost debt (the same approach that I recommend the Commission adopts).
13. Network Strategies does make an important contribution in their statement of the task at hand for the regulator which is to compensate for “the efficient cost of debt for a provider of the services in question”.
 14. This is also my starting point in Section 5 of my report. For the reasons set out there, conscientiously attempting to implement this principle leads one to the same conclusion that US, Australian and UK regulators have reached. Namely, the cost of debt must incorporate a trailing average element. The TCSD provides an attempt to introduce such a mechanism. However, as currently structured it is flawed and should be improved in the manner recommended in Section 5 of my report.

3 The 75th percentile

15. My and Professor Bruce Grundy's analysis of whether the cost of capital should be set above the median estimate distinguished between two distinct rationales for this approach:
 - cash flow asymmetries not accounted for elsewhere; and
 - asymmetries in the social consequences from under/over compensating investors.
16. The first of these points relates in part to risks not elsewhere compensated. For example, costs in terms of lost revenues and/or increased expenditure due to a one in 30 year earthquake event. Cash flow asymmetries also relate to the fact that unexpectedly high demand tends not to raise profits by as much as unexpectedly low demand reduces profits (because low demand can be served from existing capacity but high demand requires additional capacity).
17. If all cost modelling is performed on the basis of the median estimate/forecast then asymmetries such as those described above will go uncompensated. In this situation, even if the correct median WACC is 'plugged into' a cost model the actual expected return delivered by investors in reality will be below the median WACC. Thus, unless these asymmetries are fully compensated for elsewhere, some part of setting the regulatory WACC (i.e., the WACC 'plugged into' a cost model) above the median is actually required just to deliver an expected return equal to the median WACC.
18. All submissions arguing for no increment to the median WACC fail to grapple with the existence of these risks. This is also true of most of the submissions supporting the adoption of a 75th percentile WACC. Enable Services is an exception with its submission making a number of statements in support of the materiality of such asymmetries for a UCLL/UBA provider.

ESL strongly submits that the unique risks facing the telecommunications industry, and in particular the industry's transition to UFB fibre should be reflected in the risk components used to arrive at an appropriate cost of capital unique to UCCL and UBA pricing. More specifically, the telecommunications industry faces Type II asymmetric risks, such as the threat of competitive entry or asset stranding from technical innovations. In ESL's view, an uplift to the cost of capital is necessary to the extent any asymmetric risks are not fully recognised in any cash flow expectations under a pricing model (for example, by way of an accelerated depreciation charge). We comment further on this point later in our submission. (Page 2)

Cost of Capital calculations are complex, based largely on international benchmarks and historical foundations that do not accurately reflect the

current transitional nature of the telecommunications industry in New Zealand. (Page 3)

19. Enable also identifies the likely impact of migration to UFB on the demand for copper as an asymmetric risk factor which should be recognised in the WACC:

This asymmetric risk factor should be recognised in any cost of capital estimate and/or by way of an accelerated depreciation charge (return of capital). Moreover, where demand shocks for copper are systematic, some technology risk or risk of obsolete assets may have a systematic component. (Page 4)

20. In my view, the Commission needs to establish a separate process to identify, cost and compensate for many of these types of costs directly. As explained in Section 7 of my March 2014 report, this cannot be done without knowing how the Commission will approach other elements of its cost modelling both now and in the future (e.g., how will it amend regulated prices in the event of a major earthquake or what asset stranding risk due to technology change exists). This is why the Commission needs to establish a work-stream focusing on these issues and their interdependencies. However, failing that, adding a premium to the WACC is one way of indirectly compensating for these expected costs.
21. In relation to the second rationale for a 75th percentile (i.e., asymmetric social consequences from under versus overcompensating investors) PwC, for Telecom, makes the argument that there may be a weaker basis for adopting the 75th percentile here than in the IMs.

The existing WACC IMs are generally applied to regulated activities using a 'building blocks' or 'regulated rate of return' type framework. In these cases prices are regulated (or monitored) to enable a fair rate of return on investment, with a 75th percentile WACC selected in recognition of what are generally considered to be the asymmetric costs of setting the regulatory WACC too low versus too high. The intention of the regulator is to avoid the asymmetric consequences of regulated firms under-investing in their regulated activities.

By contrast the UCLL and UBA price reviews are based on a forward looking assessment of a 'market price' for services provided using what are largely sunk investments. While we have not analysed this issue in any depth, the rationale for selecting a regulatory WACC above the mid-point would appear to be less compelling in these circumstances.

22. I do not understand the distinction being drawn here and do not believe that a valid distinction exists. Electricity and gas transport services are also delivered using what are largely sunk investments. Indeed, UBA services may have fewer sunk assets than gas or electricity services to the extent that some electronics have resale value at higher than scrap value. In any event, it is not obvious what relevance one is meant to infer

from a difference in the level of sunk assets. Similarly, end users of all services place a value on the quality of service that they receive and the legislative framework in both sectors has as its objective the promotion of the long term interests of end users. To the extent that there are asymmetric consequences from under and over investment I would assume that the Commission would be equally concerned whether the investment was in transport of energy or transport of bytes of information.

23. Put simply, the task is to identify the TSLRIC cost, in a context where:

- the issues identified in para 15 have to be resolved; and
- the objective is to promote the long term interests of end users.