

Telstra Efficient Access cost model – International WACC benchmark

An Advisory Note to the ACCC

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1 Executive Summary

This Advisory Note is part of the review of the Telstra Efficient Access (TEA) model, version 1.2. It re-examines the parameters used to calculate the Weighted Average Cost of Capital (WACC).

Telstra submitted in its response to the original Ovum reports that the international comparison of WACC values was “very simplistic”. Telstra attempted in its submission to adjust for differences between countries.

In this Advisory Note, we use the same steps as in the Telstra submission to adjust for differences in tax rates, issuance costs, risk-free rates, market risk premiums and debt risk premiums. We have used country-specific information where it is available to adjust our benchmarks.

The final result is that the Telstra adjusted WACC value is 7.45%, which is still the highest (adjusted) value among the countries in the sample.

2 International WACC benchmark

In our submission to the ACCC, Ovum has provided a graph highlighting the WACC values calculated in other countries (mainly in Europe) and compares them with Telstra's calculated WACC value. We explained that the WACC value of 16.46% is the highest among the other countries and much higher than the average value of 10.38%. We have also highlighted the risks of using international benchmarks when comparing WACC values by stating that:

It should be noted that the values of cost of capital included in this graph derive from NRAs' assessment of WACC. These individual assessments contain country specific elements, such as inflation, interest rate risk and different risk-free rates. Differences in these parameters may increase or decrease the WACC value.

It is accepted that, when international comparisons of WACC values are made, the differences among the countries should be considered. Differences and therefore appropriate amendments (standardisation) could be around the corporate tax rates, risk-free rate, market risk premium and debt risk premium.

Therefore, we conclude that Telstra's proposed adjustments were correctly identified. Based on these adjustments, Telstra concludes that

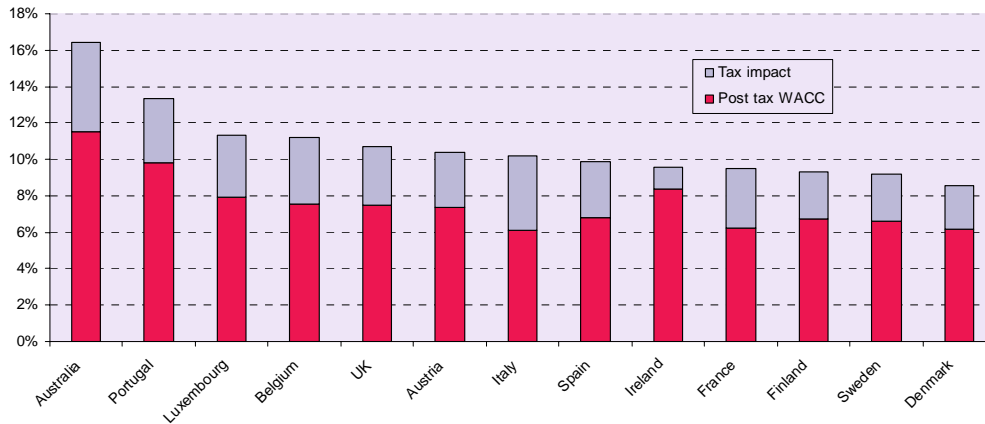
In a like for like comparison, Telstra's proposed WACC is reasonably close to the international benchmarks.

Although the recommendation to standardise the WACC parameters may be plausible, the application of the standardisation methodology may be questioned. In the following paragraphs, we follow the steps of Telstra's adjustments, but with corrected data. This shows how the outcome would change.

Step 1: Adjustments regarding the tax rates

Telstra has converted the vanilla WACC estimate (12.28%) to a post-tax WACC of (11.52%). If we also make this adjustment to Telstra's calculated pre-tax cost of capital of 16.46% we also end up to a post-tax WACC of 11.52%. At the same time, Ovum's pre-tax WACC estimates for the countries included in the benchmark sample need to be converted to post-tax WACC. In order to do so, Telstra used the corporate tax rates sourced from OECD but at the same time it submitted that the rates may not be the same as in the relevant regulatory decisions. In order to provide a more precise analysis, we have not used the OECD latest corporate tax rates but instead used the tax rates considered in each regulatory decision. The post-tax WACC values of Telstra and the benchmark countries are presented in the figure below.

Figure 2.1: Pre tax to post tax WACC conversion

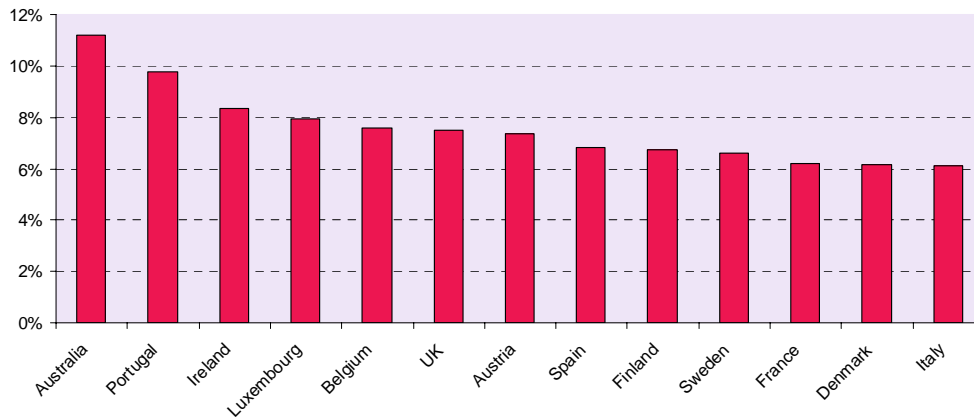


Source: Ovum

Step 2: Adjustments regarding issuance costs

Telstra has adjusted the WACC estimate in order to exclude the impact of debt and equity issuance costs, as these have not been included in WACC estimates of the countries included in the benchmark. The WACC values of the countries in the benchmark set do not have to be adjusted, but Telstra's calculated WACC value decreases from 11.52% to 11.21%, after excluding issuance costs.

Figure 2.2: Post tax WACC adjusted for issuance costs



Source: Ovum

Step 3: Adjustments regarding risk-free rates

Telstra submits that the government bond yields in Australia have been consistently higher than bond yields (of similar maturity) in most other countries and presents a graph that compares 10-year Government bond yields in 2003, sourced from OECD. Telstra selected calendar year 2003 risk-free rates due to the fact that the WACC estimates included in Ovum's report in figure 3.6 were sourced from a Europe Economics study authored in May 2004. It should be noted that the Europe Economics benchmark analysis is not relevant to the benchmark analysis

presented in figure 3.3 (p. 25). Europe Economics study, as presented in figure 3.6, is a completely different study from the one presented in figure 3.3, which considers different data sets. The analysis in figure 3.3 of Ovum's report considers WACC values sourced from a number of regulatory decisions. The calendar year of each country's regulatory decision refers to is presented below.

Figure 2.3: Year each regulatory decision applies

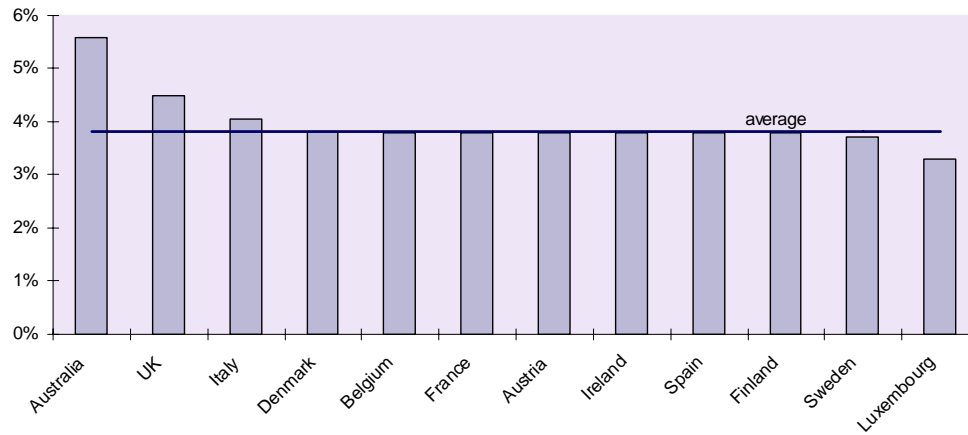
Country	Year each regulatory decision applies
Australia	2007
Finland	2006
France	2006
Ireland	2007
Spain	2006
Sweden	2007
UK	2005
Denmark	2005
Belgium	2006
Luxembourg	2007
Portugal	2006
Austria	2004
Italy	2006

Source: Ovum analysis of regulatory decisions

It can be noted that most of the regulatory decisions refer to calendar year 2006 instead of 2003, as Telstra has considered¹. If we use 10-year government bond yields for 2006 sourced from OECD, then Telstra's risk-free rate needs to be adjusted by considering the average risk-free rate of the countries included in the benchmark set in 2006. It should be noted that, apart from adjusting Telstra's risk-free rate, it is appropriate to adjust the risk-free rates considered in the WACC calculations of other countries included in the benchmark set, either because the latter referred to a year different from 2006 or because different values of risk-free rates were considered in the regulatory decisions compared to the ones sourced from OECD. These adjustments may increase or decrease the risk-free rates and therefore the WACC values. The figures below show long-term government bond yields in 2006 and the post-tax WACC values adjusted in order to exclude issuance costs and further adjusted in order to consider the 2006-OECD-sourced risk-free rates. If we were to assume for a moment that Telstra is operating in Europe and if we consider an average European risk-free rate of 3.8%, then Telstra's WACC value drops from 11.2% to 8.93%.

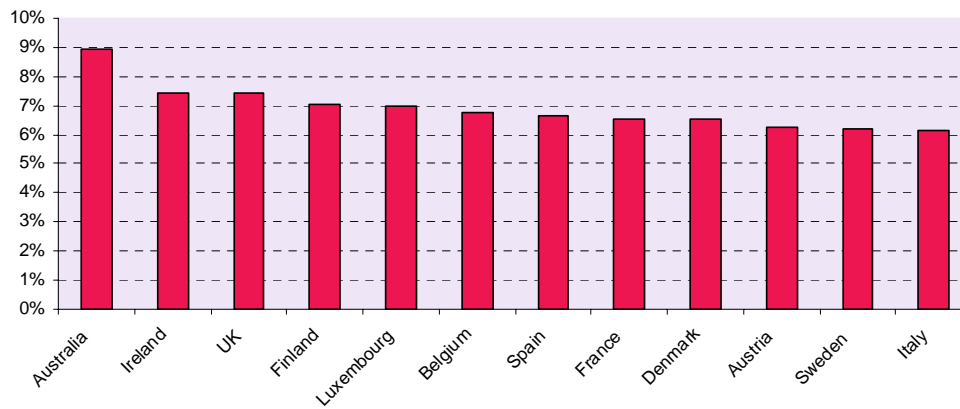
¹ Telstra submits that: "Although this (the consideration of 2003 calendar year) may not match precisely with the WACC estimates at figure 3.3, it is likely sufficient for an indicative unwinding of the effects of country disparate risk-free rates on WACC estimates". Ovum agrees with Telstra in that 2003 is likely to be sufficient from an indicative unwinding of the effects of country different risk-free rates, but calendar year 2006 is better as most regulatory decisions referred to that year.

Figure 2.4: Government bond yields 2006



Source: OECD

Figure 2.5: Post-tax WACC adjusted to exclude issuance costs and differences in risk-free rates²



Source: Ovum

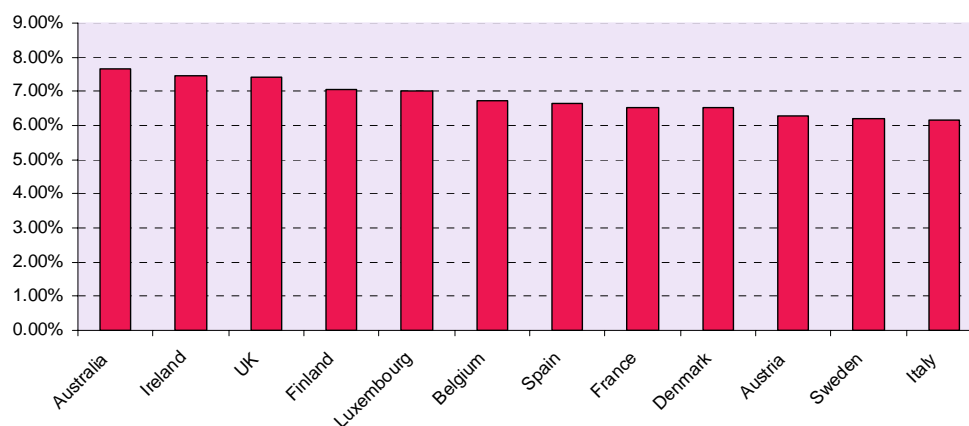
² Portugal was excluded from the benchmark sample due to the fact that WACC parameters are not publicly available.

It should be noted that we considered that Telstra is operating in an average European country and therefore we adjusted Telstra's risk-free rate by considering the average among the European countries. A more thorough analysis would identify the countries whose economic conditions most resemble those of Australian and consider as risk-free rate the average from those countries among the set of the European countries we used in our benchmark.

Step 4: Adjustments regarding Market Risk Premium

Telstra refers to Dimson *et al* study in order to show that Australia's historic Market Risk Premium is considerably higher than average MRP of the countries in the benchmark set. Telstra also submits that international comparisons of WACC values need to take into consideration differences in the MRPs between countries. According to Ovum's report (figure 3.5), Market Risk Premium of the countries in the benchmark sample range between 3.75% and 6.70% and the average value is 5.22%. Telstra adjusted the calculated WACC value by considering the average MRP value of 5.22%. If we consider an MRP value of 5.22%, Telstra's calculated post-tax WACC value, adjusted in order to exclude issuance costs, risk-free rates and MPR differences, drops from 8.93% to 7.64%.

Figure 2.6: Post-tax WACC adjusted to exclude issuance costs and differences in risk-free rates and MRP values



Source: Ovum

Step 5: Adjustments regarding Debt Risk Premium

Telstra submits that the Telstra-wide DRP has risen sharply through the near collapse of the US sub-prime mortgage market and that the credit crisis has resulted in higher credit spreads. Further, Telstra submits that Ovum should have "included relatively recent readings on the DRP applicable to the relevant entities after the internationalisation of the US sub-prime crisis impacted credit spreads".

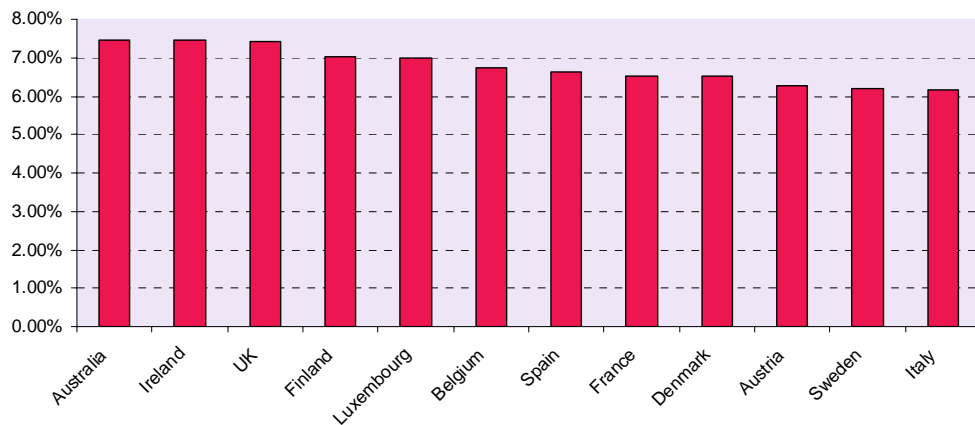
A forward-looking DRP may include the impact of the credit crunch on DRP. In case the impact of the financial crisis had not been taken into consideration when regulatory decisions were made, it is possible that recently calculated forward-looking DRPs will be above the rates considered in the regulatory decisions. It should be noted, however, that unusual and temporary events should not be

included in calculating a forward-looking value. If the financial crisis is really only a temporary phenomenon, then it should not affect the forward-looking values.

If we were to assume that Telstra's long-term DRP has increased due to the recent financial crisis, then it needs to be adjusted downwards in order to be comparable with the DRPs of the operators in the benchmark countries. This could be achieved if we consider a DRP for Telstra that is equal to the average of the DRP values considered for the other countries' operators: 1.03% instead of 1.95%. The adjusted WACC value is 7.45%.

The graph below compares Telstra's WACC value adjusted for DRP differences with the WACC value of European operators.

Figure 2.7: Post-tax WACC adjusted to exclude issuance costs and differences in risk-free rates, MRP and DRP values



Source: Ovum

Conclusion

After these five adjustments, Telstra's adjusted WACC value is still the highest among the other operators in European countries but the WACC value this time is reasonably close to the international benchmarks.

It should be noted, however, that this analysis has used international averages, meaning that the result will be driven closer to the international average WACC. A more thorough analysis would compare Australia only to those countries that are most similar to Australia in relevant economic and social measures. We have not attempted such a benchmark in this study.

3 References

The following submissions and other documents have been used in compiling this Advisory Note.

- [1] Ovum, "Review of the economic principles, capital cost and expense calculations of the Telstra Efficient Access cost model", *A Report to the ACCC*, 1 August 2008.
- [2] Telstra Corporation Limited, *Telstra's Ordinary Access Undertaking for the Unconditioned Local Loop Service: Response to Ovum's Submissions*, Confidential Version, 5 December 2008.
- [3] Dimson, Elroy, Marsh, Paul and Staunton, Mike, "The Worldwide Equity Premium: A Smaller Puzzle" (April 7, 2006), EFA 2006 Zurich Meetings. Paper available at SSRN: <http://ssrn.com/abstract=891620>