

# Peer Review of the Federal Communications Commission Staff Report ‘Prescribing the Authorized Rate of Return: Analysis of Methods for Establishing Just and Reasonable Rates for Local Exchange Carriers (May 16, 2013)’

6 September, 2013

Robert Albon and Peter Gibbard<sup>1</sup>

## *Overall Impression*

The paper is well-written; well-structured and comprehensively researched. It clearly sets out: its purpose (prescribing a new rate of return); the criteria used (‘just and reasonable’ as interpreted according to the rescription criteria); the selection of the weighted cost of capital (WACC) as the concept to be applied; the input into the process of the two main ‘sides’ to the issue; the importance of changes in regulation, technology and market circumstances since the last prescription in 1990; the detailed treatment of the data sources and data issues used in determining the WACC; and the results of the investigation (a recommended reasonable range of values for the ‘authorized rate of return’). The main content of the paper is section III, titled ‘Discussion’. Most of our comments relate to this core section of the paper.

## *The Executive Summary*

With one exception, the Executive Summary provides a clear and concise précis of the paper. The exception is that the Executive Summary refers to ‘one or both of the methodologies’ without actually naming these (DCF and CAPM). The paper proceeds in a clear manner to follow the path of the Executive Summary.

## *The Introduction and Background*

The paper is clearly and concisely introduced in the ‘Introduction’ (paragraphs 1-3) and ‘Background’ (paragraphs 4-7) sections of the paper. Together, these sections introduce the rescription criteria and the issues that have been raised by changes that have occurred, since 1990, with respect to regulation, technology and market circumstances.

## *The Rescription Criteria*

At first impression, the requirement that the authorized rate of return be ‘just and reasonable’ is a challenge for economic analysis because of its strong apparent normative characteristic. However, the rules themselves provide crucial guidance that place the focus squarely on economic efficiency. While staff observes that the rescription rules ‘have remained largely unchanged for almost two decades’ (paragraph 4), it seems to us that these rules are ‘timeless’. Further, the use of the WACC as the concept to underlie the authorized rate of return is not in any way controversial, and is consistent with both the criteria that must be used by the FCC. It is also consistent with international practice.

Of course, in the first rescription in twenty-three years, FCC staff is dealing with very different circumstances from those faced when it was done previously. In particular, the changes over these years will impact on the key elements of the WACC; particularly the risk attached to the operation of LECs.

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### *Analysis of Financial Data Required*

A compelling argument is offered for the proposed proxy group. In choosing the proxy group, a trade-off must be made: on the one hand, if the proxy group is too small, the results will be excessively sensitive to the measurement errors associated with a member of the group; on the other hand, if the proxy group is excessively large, the group will be insufficiently representative of the rate-of-return incumbent LECs. In our view, the paper makes this trade-off appropriately.

### *Capital Structure*

The move to market-value capital structures is warranted, because market-value measures are of greater economic significance than the book-value measures. In estimating the gearing ratios for the purpose of determining the WACC, the Australian Competition and Consumer Commission and the Australian Energy Regulator use the market-value measure of the value of equity. The data were sourced and applied appropriately.

### *Cost of Debt*

In our view, the overall approach to the cost of debt is reasonable. The use of 10-K forms is an appropriate source for data on the cost of debt, and the data were appropriately applied.

### *Cost of Equity*

While the overall approach to the cost of equity is reasonable, there is some important relevant economic research relating to the estimation of the MRP which is not referenced. Whereas the paper correctly notes that the historical market premium is commonly regarded as an appropriate measure of the expected market premium, there is currently a debate in the academic literature about whether an estimate of the expected market premium should be conditioned on current information, rather than simply based on historical information. This current state of this debate is summarized in Dimson, Marsh and Staunton.<sup>2</sup> In addressing the question of whether historical or time-varying conditional estimates of the MRP are appropriate, they point out that the answer to his question hinges on the ongoing debate about the predictability of returns. They observe that the debate about predictability is ‘far from settled’:

Yet despite extensive research, this debate [about predictability] is far from settled. In a special issue of the *Review of Financial Studies*, leading scholars expressed opposing views, with Cochrane (2008) and Campbell and Thompson (2008) arguing for predictability, whereas Goyal and Welch (2008) find that ‘these models would not have helped an investor with access only to available information to profitably time the market’. Cochrane’s (2011) recent Presidential Address demonstrates the persistence of this controversy (Dimson et al., 2012, p. 36).

In their contribution to the debate, Welch and Goyal<sup>3</sup> argue that, in forecasting excess returns, investors cannot do better than use a historical average, which would support the use of a historical average to estimate the MRP. On the other hand, the arguments of John Cochrane can be taken as implying that estimates of the expected MRP should be conditioned on currently available information, such as information on the dividend yield.<sup>4</sup> While there is an active debate on this question in the literature, in our view it is reasonable to use a historical

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It is appropriate to use a long-term Treasury yields in the CAPM. In recent years the Australian Competition and Consumer Commission and the Australian Energy Regulator have used ten-year government bonds as a proxy for the risk-free rate. Pratt and Grabowski (pp. 118-20) and Damodaran (pp. 9-10)<sup>5</sup> both propose that, in general, an equity investment in an ongoing business is long term. They suggest, therefore, that for an ongoing business, the term of the equity should be measured as the duration of the long-term – and potentially infinite – series of cash flows. Both conclude that it is appropriate to use long-term government bonds to estimate the return on equity, with Damodaran suggesting that ten years is generally appropriate.

Is there a typographical error in the sentence near the top of page 31 that begins ‘We note that the CAPM estimates...’?

### *The Zone of Reasonableness*

The determination of a ‘zone of reasonableness’ is an appropriate way forward, consistent with what the data are telling FCC staff. The actual rates in the zone of reasonableness, of between 7.39 percent and 8.72 percent, appear to flow easily from the data used. However, while it appears reasonable to us, the appropriate magnitudes of this zone vary over time according to (i) whether it is a low interest rate or a high interest rate environment; and (ii) the level of credit spreads.

In providing further guidance to the Commission within the zone of reasonableness, FCC staff uses Times Interest Earned Analysis (TIE). This results in firms with low leverage getting too much coverage if the rate is chosen from the top of the range of reasonableness.

The paper makes two claims which might appear to be in tension with one another. On the one hand, the conclusion that the return should be in the upper half of the zone of reasonableness is defended, in part, by pointing to the fact that interest rates are ‘currently historically low’. On the other hand, in paragraph 65, the use of ‘the current interest rate’ in the CAPM is supported by the fact that the current rate ‘is the best predictor of the future interest rate on government securities’. Do these two claims need to be nuanced somewhat to ensure that they are compatible?

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