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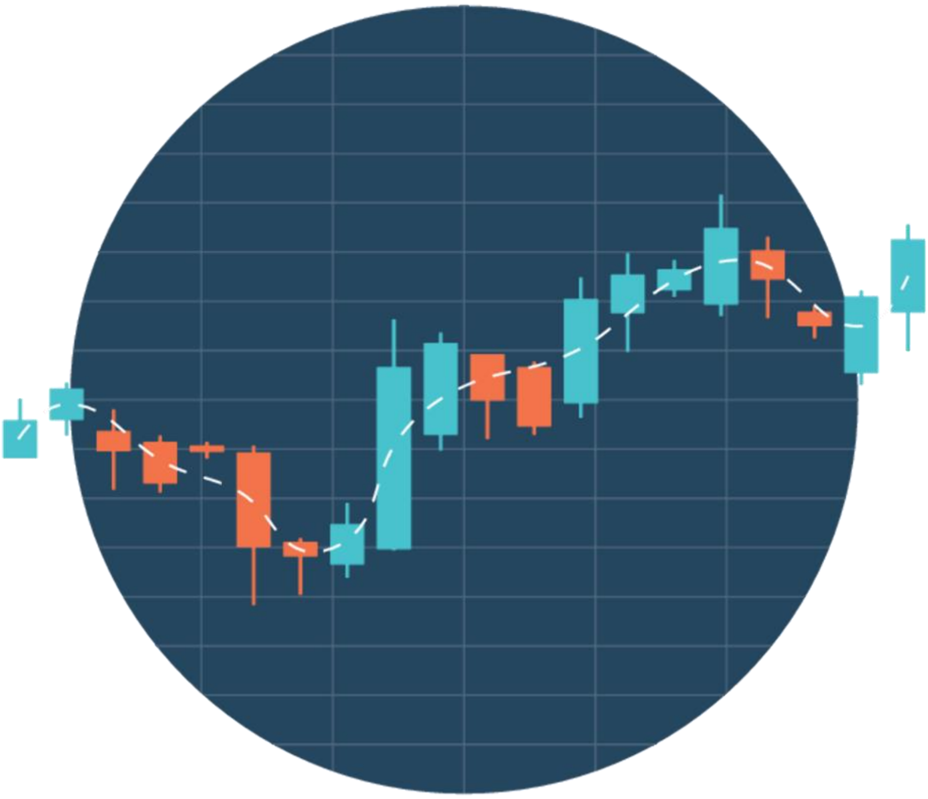

Required Returns for Infrastructure Assets – Market Based Evidence

Aurizon Network Pty Ltd

29 September 2017

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29 September 2017

David Collins
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Level 4, 192 Ann Street
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Dear David,

Re: Required Returns for Infrastructure Assets – Market Based Evidence

Thank you for the opportunity to assist Aurizon Network Pty Ltd (Aurizon Network) with the preparation of a report summarising the post-tax equity returns that selected infrastructure asset investors have required over the past two years.

I am pleased to provide this report summarising our approach and key findings.

Yours sincerely,

Sarah McAlister-Smiley
Partner
Deloitte Financial Advisory Pty Ltd

Contents

1 Background

Aurizon Network submitted the 2017 Draft Access Undertaking (UT5) to the Queensland Competition Authority (QCA). The QCA is currently considering whether to approve, or refuse to approve, UT5. This paper provides an overview of the post-tax equity returns required by selected infrastructure asset investors to support Aurizon Network's position on the Weighted Average Cost of Capital (WACC) in its UT5 submission.

1.1 Background

Aurizon Network submitted UT5 to the QCA on 30 November 2016. UT5 proposed a number of changes in comparison to UT4. In relation to the WACC, Aurizon Network proposed to apply a Vanilla WACC of 6.78 per cent to determine its Maximum Allowable Revenue (MAR).

The WACC should ensure that the investor earns a return commensurate with the regulatory and commercial risks associated with the investment.

Deloitte Financial Advisory Pty Ltd (Deloitte) was engaged by Aurizon Network to undertake a survey to better understand the rate of return required by infrastructure investors. The analysis considered infrastructure transactions that have occurred over the past two years. The types of infrastructure transactions include regulated and unregulated utilities, pipeline assets, generation assets (including renewables) and transport assets including ports, airports and toll roads.

The transport assets, particularly those that fall within the scope of access regulation with exposure to commodity risk, are relevant comparators to Aurizon Network.

This report summarises the key findings from the survey.

1.2 WACC

The WACC reflects both the costs of debt and equity, with the cost of equity typically being calculated using the Capital Asset Pricing Model (CAPM). It is a forward looking concept which is used to discount a stream of future cash flows to their present value and should provide a return commensurate with what equity participants and debt financiers are seeking based on current market risks and conditions. A WACC that is aligned to market conditions will not negatively affect the financial sustainability of a regulated asset and will support the long-term capital investment in infrastructure. This report specifically focuses on the post-tax cost of equity component of the WACC.

2 Approach

Deloitte surveyed five leading global investment banks who have been involved in large infrastructure transactions over the past two years to determine the market's perspective on returns required by infrastructure investors when investing in assets and operations such as Aurizon Network.

2.1 Survey questions

Survey questions were asked to gauge an understanding of the selected global investment banks' perspectives on returns required by infrastructure investors. These questions considered:

- Post-tax equity returns required by investors
- The relationship between post-tax equity returns and risk free rates
- Aurizon Network's risk profile from an investor's perspective.

The survey questions relating the above items are listed in Appendix A.

2.2 Survey participants

The five survey participants were selected based on their:

- Recent experience in infrastructure transactions comprising regulated and unregulated utilities, pipeline assets, generation assets (including renewables) and transport assets including ports, airports and toll roads
- Reputation as leading global investment banks
- Understanding of regulated assets.

2.3 Survey Results

The survey questions listed in Appendix A were provided in advance to the investment banks and the survey was undertaken via a series of teleconferences between Deloitte and the investment banks. In many cases, examples and further detail were provided by the investment banks to provide context. The collective view of the investment banks is presented in this report.

All survey responses are confidential and responses have been anonymised pursuant to section 239 of the *Queensland Competition Authority Act 1997*.

The summary of responses to the survey questions outlined above are summarised in the next section of this report.

3 Summary

This section considers the range of post-tax equity returns sought by infrastructure asset investors from a market perspective. It also provides insight into a number of the key factors considered by infrastructure investors in determining the post-tax cost of equity to apply in particular infrastructure transactions.

This section summarises the outcome of the survey to better understand the returns required by infrastructure investors.

The market based evidence indicates that:

- Infrastructure transactions over the past two years indicate post-tax equity returns of 7 to 13 per cent are required by investors in infrastructure assets. The level of risk attributed to a particular asset will dictate where it falls within the range

- High quality regulated assets have attracted returns between 7 and 9.5 percent, while high quality transport assets have attracted returns between 8 and 11 percent

- The risk free rate and the post-tax equity returns for these investments have declined over time. However, the risk free rate has declined at a greater rate than the required post-tax equity returns. Anecdotally, the decline in required post-tax equity returns has been attributed to the recent influx of capital in the market and the corresponding increase in competitive tension rather than the decline in the risk free rate

- Investors consider the period of time they expect to hold an asset when determining the appropriate risk free rate. Accordingly, this should be taken into consideration when deciding the periodicity of Commonwealth Government bonds

- There are a number of drivers which indicate that Aurizon Network would be considered a higher risk investment than utilities. This is due to the lack of predictability in its regulatory regime, commodity exposure, the environmental impact of coal and the development of technology in renewable energy

- The survey indicates the post-tax equity return required by investors in Aurizon Network would likely sit at the high end of the range for regulated assets or the lower end of the range for high quality transport assets.

4 Key Findings

The survey revealed that investors' required post-tax equity returns have declined over the past five[1] years. However, these returns have not declined in proportion to the risk free rate.

4.1 Observed post-tax equity returns

The survey responses indicated that a post-tax equity return of 7 to 13 per cent has been required by investors for infrastructure assets over the past two years. Post-tax equity returns required vary depending on the asset class and the:

- Risk profile of the asset
- Level of demand
- The investor's business plan and ability to access capital.

The range of post-tax equity returns can be classified into:

- High quality regulated assets or assets supported by firm long-term contracts with investment grade counterparties
- High quality transport assets, including ports and airports.

Over the past two years, high quality regulated assets and infrastructure assets supported by firm long-term contracts have attracted post-tax equity returns between 7 per cent and 9.5 per cent[2].

In comparison, high quality transport assets have attracted post-tax equity returns between 8 and 11 percent[2].

Higher risk assets, including those with more operating risk or commodity risk, have attracted post-tax equity returns between 10 and 13 per cent[2].

Within the ranges defined above for the different assets classes, the level of risk attributed to an individual asset will dictate where it falls within the range.

Survey participants considered that Aurizon Network's post-tax equity return would likely sit at the high end of the range for regulated assets or the lower end of the range for high quality transport assets.

[1] The survey asked for the impact over the last two years, respondents provided a longer-term view and discussed observations in the market over the last five years.
[2] The survey asked for the range of required post-tax equity returns required for investors. All participants provided an indication of where different asset types fell within this range.

4.2 Relationship between post-tax equity returns and the risk free rate

The survey found that there has been a compression in the post-tax equity returns for infrastructure assets over the past four years. This decline is not considered to be solely attributable to the decline in the yield on 5 and 10 year Commonwealth Government bonds which are used as a proxy for the risk free rate.

Specifically:

- Investors are not heavily influenced by changes in the yield on Commonwealth Government bonds
- Returns have fallen by a smaller proportion relative to the decline in the yield on Commonwealth Government bonds. Over the past three years the 10 year Commonwealth Government bond rate has fallen by 81 basis points, while post-tax equity returns have fallen 50 to 75 basis points over the same period
- The compression in returns is generally attributed to other factors such as a large amount of capital competing for a comparatively small number of investment opportunities, the ability for investors to access lower costs of capital and an appetite to invest in particular sectors.

Accordingly, while post-tax equity returns and 5 and 10 year Commonwealth Government bonds have declined, the decline has not been proportional and has been driven by other market factors.

4.3 Term of the risk free rate

An explicit risk-free rate is not always considered as a reference benchmark. Where investors are taking into consideration a specific rate, the term of the risk free rate adopted has been determined taking into consideration the duration of the investment.

Historically, both the 5 year and 10 year Commonwealth Government bonds have been applied. However, investors typically approach their investments with a long term view, making the 10 year Commonwealth Government bond rate the preferred and more commonly used rate. In the case of regulated assets, the term of the risk free rate is typically matched with the methodology outlined in the applicable regulatory framework.

The 10 year Commonwealth Government bond is applied more frequently because:

- Infrastructure investments are typically long-term investments and 10 year Commonwealth Government bonds are the longest dated credit guarantee scheme in the Australian market
- The Australian Energy Regulator (AER) has adopted a 10 year term for the risk free rate used in their WACC calculation.[3]

In determining the appropriate risk free rate, investors will also consider observable base rates, historic long-term averages and swap rates to appropriately measure their investment over the long term.

[3] Australian Energy Regulator, 2013. *Better Regulation, Explanatory Statement, Rate of Return Guide*, pg. 10.

4.4 Investors' view of Aurizon Network

The investment banks surveyed were of the view that investors would consider Aurizon Network to be a higher risk investment than utilities. While Aurizon Network is exposed to similar risks as a regulated utility, it also faces a range of additional risks including:

- Additional regulatory risk
- Commodity price risk
- Social and commercial risks.

Investors have become more familiar with regulated infrastructure transactions. While Aurizon Network's regulatory mechanism is similar to other regulated assets in the sense that it has a revenue cap and includes provisions for unders and overs, the Queensland access undertaking process is considered to be a less mature regulatory framework. From an investor's perspective, the framework lacks the transparency and timeliness of the regulatory frameworks administered by the AER due to the limited number of decisions being made by the regulator.

Aurizon Network is also exposed to commodity price risk. This is due to Aurizon Network's relatively concentrated coal customer base. As such, any downturn in commodities could expose Aurizon Network to asset stranding and negatively impact Aurizon Network's ability to earn a reasonable return on its capital base. Infrastructure assets exposed to commodity price risk attract a higher return than similar assets that are not exposed to commodity price risk.

Finally, Aurizon Network's largely coal customer base exposes it to social risks. Investors are increasingly focusing on social responsibility and as such, investor appetite is switching away from companies like Aurizon Network. Similarly, the focus towards renewables brings into question the long-term demand for coal and the commercial risks associated with a concentration on coal transport over the long-term.

The survey found that the unique risks faced by Aurizon Network over the long term would place upward pressure on the post-tax equity return required by infrastructure investors.

5 Limitations of our work

General use restriction

This report is prepared for Aurizon Network Pty Ltd. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose set out in our contract dated 15 September 2017. You should not refer to or use our name or the advice for any other purpose.

6 Appendix A

Survey Questions

1. Based on completed infrastructure transactions you have seen in the market over the last two years, what is the range of post-tax equity returns that investors have required?
2. Over the last two years, have the post-tax equity returns required by investors declined in line with the general reduction in risk free rates?[4]
3. In your experience, what is the range of risk-free rate time periods (ie. terms) that investors/banks use when valuing infrastructure transactions?
4. Based on your recent transaction experience, will investors view Aurizon Network as a higher risk than utilities? If so, what are the additional risks?

[4] While the survey asked for the impact over the last two years, respondents provided a longer-term view and discussed observations in the market over the last five years.