Review of Cost of Capital

- **Mobile Telecommunications**
- **Fixed Line Telecommunications**
- **Broadcasting (Market A and Market B)**

Submissions to Consultation Document No. 14/28s

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Response on behalf of eircom Group to ComReg Consultation 14/28

Review of Cost of Capital (WACC)

16th May 2014

DOCUMENT CONTROL

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I. Response to Consultation

eircom welcomes this opportunity to respond to ComReg's Consultation and Draft Decision document 14/28, "Review of Cost of Capital", of 11 April 2014.

1. Effect of Changes in WACC on Investment Incentives

ComReg has embarked on this forward-looking review of eircom's Weighted Average Cost of Capital (WACC) at a critical time and at a time of significant ongoing change in the overall telecommunications industry. In particular, we are now at the early stages of the "Next Generation Access" (NGA) era, when the Irish telecommunications market is undergoing a fundamental technological shift to next generation infrastructure, and various operators are deciding on the level of investment to commit, or continue to commit, to this new infrastructure.

In this context, any Decision issued by ComReg in relation to the telecommunications WACC is likely to impact upon the investment decisions taken by all market players. Economic regulation has a direct influence on the level of investment in the national telecommunications network. Simply stated, if the investment return for private capital in telecommunications infrastructure is significantly less than what can be achieved in other areas, capital will not flow into the networks

There is increasing inter-platform competition in the telecommunications market from mobile, cable and fixed wireless providers. There is also still some regulatory uncertainty with regard to the regulation of new technology going forward. Our detailed responses below outline a number of overarching issues that we believe must be borne in mind in respect of the establishment of an equitable cost of capital for telecommunications in Ireland.

2. General Macro-Economic Environment

From the outset, we observe that ComReg's proposed WACCs are set at unjustifiably low levels. As highlighted by ComReg (at ¶ 6.3), adjustments were made to the WACC in the previous review reflecting the significant uncertainty and financial market volatility of the financial crisis. "*The adjustments to the ERP and the cost of debt increased the WACC above the original estimate of 9.43% by 0.78% to 10.21%. This uplift was intended to compensate Eircom for the financial crisis which emerged in 2007.*" This suggests that the pre-crisis / post-crisis WACC should at least be in the region of 9.5%. Whether the financial crisis is in fact over is also a material consideration.

Given that the general economic environment has gone through a period of significant upheaval since ComReg's last review of the WACC in 2007/08, there is a strong fundamental basis for not reducing the existing WACC figure, or , at least, minimising any possible reduction. There are also strong investment and public policy reasons for not changing the WACC figure.

As outlined above,, when ComReg set the WACC previously in 2008, an uplift factor of 0.78% was applied to take account of the financial crisis at the time. We believe that, due to the ongoing uncertainty as we emerge from the financial crisis, a continuation of this prudent approach by ComReg is justified and an appropriate uplift should be applied as the fragile nature of the Irish economy's recovery is likely to persist during the period of this review. An uplift is required to ensure the WACC is more reflective of current operating conditions in Ireland.

We note that ComReg, in ¶ 4.8, "*considers that at present Irish government bonds do not meet the risk-free asset criteria"* so "*it is appropriate to use German government bonds* as the main source of market evidence in informing its view on the risk-free rate". eircom has serious reservations with this approach, in particular, from two specific perspectives –

- ComReg is seeking to establish WACCs for the Irish market, not the German market. ComReg proposed approach suggests that ComReg believes investors in Ireland should choose between investing in the Irish telecommunications sector or German government bonds. The WACC must be consistent with national circumstances, and
- The financial crisis is clearly not finished as reflected in Irish government bond yields, so there should be some form of upward adjustment in the WACC to take account of this reality.

In this context, the ComReg's proposal to reduce eircom's current Fixed WACC of 10.21% to 8.48% appears excessive, and would introduce regulatory uncertainty, which should preferably be avoided.

3. Expert Analysis

We refer to expert analysis carried out by ✂ and submitted to ComReg on 9 April 2014 to assist them in their current analysis of the Telecomms WACC. This submission ✂ should be considered to be Annex 1 of this response, and should be read as part of this response.

The annex contains a summary slide from ✂ in relation to their calculation of the pre-tax eircom WACC. Their calculations produce a pre-tax WACC of ✂.

4. Upside vs. Downside Risks

WACC reviews typically output a range of possible values shown as low / medium / high. However, it is essential to note that the situation is far from being symmetrical, in that the potential adverse consequences from under-estimating the WACC (e.g. under-investment in the telecommunications industry leading to potentially lower quality or non-provision of certain services) far outweigh the consequences of any possible over-estimation of the WACC.

We note ComReg's acknowledgement of this fact in ¶ 2.26, and we believe that the aiming up approach proposed by ComReg is a reasonable attempt to account for the asymmetry.

5. Lack of any Regulatory Impact Assessment (RIA)

This Draft Decision document contains 4 Draft Decision instruments, proposing for the first time WACCs for broadcasting and mobile and proposing a significant reduction in the Fixed WACC.

These changes will clearly have material impacts on stakeholders. Yet, ComReg does not include a RIA in the document. A RIA might be expected to cover areas such as –

- Investment incentives,
- Competitive effects,
- Regulatory uncertainty,
- Effects on particular stakeholders,

etc.

This omission is clearly very serious, in that there is no indication that ComReg considered any or all the available alternative options, or what criteria they adopted in choosing their preferred options.

This makes it difficult for respondees to address all of the issues raised in the consultation paper.

6. Conclusion

Taking the above points into consideration, we conclude that WACCs of 8.66% for mobile and 8.48% for fixed currently being proposed by ComReg materially underestimate the required rates of return for investment in telecommunications infrastructure in Ireland.

II. RESPONSES TO CONSULTATION QUESTIONS

Q.1 Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

eircom agrees that the CAPM based WACC methodology continues to be the most appropriate basis for calculating cost of capital estimates. The CAPM is the most practical and commonly-used model for estimating the cost of equity for use in WACC calculations.

While eircom agrees with the use of the CAPM-based methodology, it is merely an estimate, due to the highly subjective nature of some of the inputs, particularly the Beta and the Equity Market Risk Premium (EMRP). It is also acknowledged that while CAPM is widely used and applied in WACC valuations, it is very difficult to test in practice.

It is also important to consider the implications of eircom's status as a privately held company both in terms of the liquidity premium and in terms of the cost of capital. Consequently it is necessary to rely on external benchmarks in estimating beta due to a lack of current share price information for eircom. The CAPM model assumes that all assets are divisible and marketable.

Q.2 Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

The generic parameters identified by ComReg were

(i) the risk free rate,
(ii) the Equity Risk Premium (ERP), and
(iii) Taxation.

We note that ComReg has reduced both the risk free rate and the ERP from the levels set in 2008 despite commenting in ¶ 5.56 that the "*ERP can be expected to move in the opposite direction to the risk free rate so that market returns are more stable than their components*".

(i) Risk Free Rate:

As highlighted above we do not consider ComReg's proposed approach, using German government bonds, to be appropriate.

In addition at ¶ 4.10, it is noted that the average real risk free rate indicated by Regulatory decisions in Ireland since 2000 is 2.5%. Notwithstanding this, the real risk free rate range has been set at a maximum of just 2.5%, with a minimum of 1.75%. We thereby consider that the range for the real risk free rate has been set at an obviously low level. Regarding Inflation, we consider that the inflation rate should be set by reference to the ECB target of 2% per annum.

(ii) ERP:

We consider that the evidence presented in ¶ 4.16 suggesting that the ERP for Ireland is lower than the European wide ERP (4.6% vs. 4.8%), is inconsistent with current market expectations in the aftermath of the country's recent economic collapse and expert advice provided to the company which indicates that Irish ERP can be expected to significantly exceed European averages. Expert analysis provided to the company using the Damodaran methodology suggests a UK ERP of 6.7% with Irish ERP considerably in excess of that figure.

As previously raised by eircom with the Europe Economics team, eircom does not accept that a long term range in excess of 100 years is necessarily appropriate data to estimate a medium term equity risk premium. ComReg seek to set the rate for a period of approx. 3-7 years. As such, eircom believes that a more medium term review of the ERP is required. Whilst the worst of the European economic crisis may be behind us, the European markets are still extremely volatile. (¶ 4.15)

(iii) Taxation:

eircom considers that the tax legislation in Ireland, which does not allow for all costs to an Operator to be deducted from trading profits, ensures that operators are subject to effective rates of tax which are in excess of the statutory rate of corporation tax which applies to profits from a trade. Certain costs deemed to be of a capital nature do not qualify for deduction. Examples of such non-deductible costs include those associated with the raising of debt, those related to the investment in buildings, and particular capital expenditure incurred on the purchase of Capacity Rights since 6 Feb 2003 from ComReg under TCA 1997 sec 769A. Interest incurred on debt also does not qualify for a tax deduction in all circumstances. eircom does not consider any of the examples given as being specific to a particular company - these reflect the legislation applicable to all companies and/or companies investing in telecommunications spectrum licences.

It is not our experience that telecommunications companies avail of incentives such as R&D Tax credits to the extent that there is any material reduction in the effective tax rate chargeable. This is very important to the Mobile Operators due to the restriction in s769A of the Irish tax legislation which is specific to Ireland, and which rendered the €481.7m of upfront fees paid by Operators following the Nov 2012 Multi-Band auction not deductible for tax.

Q.3 Do you agree with ComReg's proposed approach to estimating the WACC specific to the mobile telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

The parameters specific to the Mobile Communications Sector identified by ComReg were

(i) gearing,
(ii) the asset beta, and
(iii) Debt Premium.

(i) Gearing:

We do not agree that gearing ratios for Mobile Operators are necessarily lower than Fixed Line Operators. We consider that the sample of companies reviewed is too narrowly focused on large incumbent operators. We also believe that Mobile telecommunications Operators are not "asset-light", as suggested by Europe Economics, due to the significant levels of intangible asset investment. We believe that the investments recently made by Irish Telecommunications Operators in 4G Spectrum and related infrastructure will have necessitated increased gearing and this should be reflected by ComReg in the target gearing levels.

(ii) Asset Beta:

We consider that the asset beta for Mobile operators may be more materially higher than that of purely Fixed Line operators. It appears that excessive reference has been made by ComReg to 2011 Ofcom determination, which applies to the UK - a non-eurozone country, and to Vodafone, with little regard taken to the 2011 and 2010 determinations made in France, as described in the Europe Economics Report.

(iii) Debt Premium:

We do not believe that the analysis undertaken by ComReg in respect of debt premia sufficiently takes account of the market conditions for Irish corporate debt. We consider that the analysis of the Irish Debt Issuance Premium, which only refers to Irish State controlled companies ESB and Bord Gais, does not reflect market sentiment toward Irish telecommunications companies generally, given the levels of market saturation, as evidenced by the elevated prices incurred for recent bond issuances by eircom. Telefonica has also been excluded from ComReg's review, nor are any peripheral eurozone countries included.

Q.4 Do you agree with ComReg's proposed approach to estimating the WACC specific to the fixed line telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

The parameters specific to the Fixed Line Communications Sector identified by ComReg were

(i) gearing,
(ii) the asset beta, and
(iii) Debt Premium.

(i) Gearing:

We consider the point estimate adopted is reasonable. However, we believe that gearing levels are likely to increase as a result of additional investments required by the Industry to fund the latest technological advancements in Fibre Access, and that this should be reflected by ComReg in their forward-looking review of the WACC.

(ii) Asset Beta:

A review of peer data provided to the company by external analysts suggests an average asset beta of the order of 0.57, which, with further aiming up, would have the effect of increasing the WACC. We believe that ComReg has not considered a fully representative sample of companies in estimating the Asset Beta for Fixed Line.

(iii) Debt Premium:

As outlined in our response to Q.3 above, we do not believe that the analysis undertaken in respect of debt premia by ComReg sufficiently takes account of the market conditions for Irish corporate debt. We consider that the analysis of the Irish Debt Issuance Premium, which only refers to Irish State controlled companies ESB and Bord Gais, does not reflect market sentiment toward Irish telecommunications companies generally, given the levels of market saturation, as evidenced by the elevated prices incurred for recent bond issuances by eircom.

Q.5 Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

eircom has no comments in relation to this question.

Q.6 Do you believe that ComReg should consider additional incentive based mechanisms in order to incentivise long term investments in infrastructure assets and provide an adequate allowance for bearing any associated systematic risks? How might such incentives be implemented in practice? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

As outlined at length earlier in this response, ComReg should ensure that the WACC is not set too low, as this would undoubtedly serve to disincentivise network investments in Ireland. ComReg's proposed changes to eircom's WACC arise from changes to input parameters (which we would argue are essentially arbitrary). Given the uncertainties involved in the estimation of these parameters, there is a range of WACC values that could be adopted, and ComReg should veer towards the upper end of this range. Thus, setting a sufficiently high WACC across the entire portfolio of investments is the principal way that ComReg can incentivise long term investments in infrastructure assets and provide an adequate allowance for bearing any associated risks.

The Europe Economics analysis relies exclusively upon historical data for its empirical support. This, by definition, means that the calculation does not take into account specific risks going forward associated with current or future investments. If fundamental changes to the business risk of eircom's regulated business appear over the duration of the new WACC, then there must be a mechanism whereby eircom's WACC can be adjusted.

We note ComReg's comments regarding Capex incentive mechanisms in chapter 8. eircom believes there would be a number of practical difficulties in applying different estimates of WACC to different parts of the business and that specific cost of capital estimates should only be used where there is a high degree of confidence that accurate estimates can be obtained. eircom is also of the opinion that further analysis of the risk profiles of the various eircom divisions is required before any estimates could be attempted.

Q.7 Do you believe that the draft text of the proposed decision instrument for Mobile Telecommunications is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

eircom has no comment in relation to the wording.

Q.8 Do you believe that the draft text of the proposed decision instrument for Fixed Line Telecommunications is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

This response deals exclusively with the wording of the Draft Decision instrument, and is without prejudice to eircom's substantive position as expressed elsewhere in this response.

1. **Statutory Powers**

¶ 1.3 – The term "*ComReg Decision No. XX/13*" should read "*ComReg Decision No. XX/14*".

4. **WACC**

¶ 4.1-.¶ 4.3 – The references to "XX%" and "X%" is confusing and potentially superfluous in that ComReg's current view is that these two values should be the same.

Ref . ¶ 6.71 (Page 64)

> "…*The question arises as to whether the same WACC should apply to all fixed line operators or whether differential WACCs should apply. ComReg's preliminary view is that the same WACC should apply because … There is no practical way to estimate a differential WACC for termination services as compared to the other services provided by Eircom which are subject to price controls*".

We agree with ComReg's proposal that a single WACC should apply to all fixed operators and for the sake of clarity, we suggest that ¶ 4.1-.¶ 4.3 can be amalgamated to some extent.

At clause 4.1 of the draft decision instrument (page 91), ComReg states "*A nominal pre tax WACC of xx% will be used for the purpose of eircom's Regulated Accounts*". The role of the WACC in preparing those accounts is limited to calculating the appropriate transfers of network costs to services where a suitable wholesale price does not exist. It is eircom's intention to prepare the Financial Year 2014 accounts using 10.21% to calculate these transfers and to use the updated WACC of xx% to calculate these transfers for the Financial Year 2015 accounts. This is the most

practicable implementation of clause 4.1 and is consistent with the intention of the Decision.

Q.9 Do you believe that the draft text of the proposed decision instrument for Broadcasting - Market A is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

eircom has no comments in relation to this question.

Q.10 Do you believe that the draft text of the proposed decision instrument for Broadcasting – Market B is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

eircom has no comments in relation to this question.

III. **Annex 1**

✂

2 Vodafone Ireland Limited

Vodafone Response to ComReg Consultation :

Review of Cost of Capital

- **Mobile Telecommunications**
- **Fixed Line Telecommunications**
- **Broadcasting (Market A and Market B)**

Ref. ComReg Document 14/28 Response Date: 16 May 2014

Summary

In general Vodafone Ireland ("Vodafone") believes ComReg and Europe Economics have followed a reasonable approach for estimating the WACCs to apply for the Communications Sector in Ireland. Vodafone fully agrees with the use of the CAPM framework, the aiming-up of the WACC estimates and many of the parameters that have been used for the point estimates of WACC. However, there are a number of parameters which Vodafone believes must be refined. Moreover, the way ComReg and Europe Economics have implemented the CAPM produces counter-intuitive results, both when comparing the outputs for the mobile and fixed telecoms sector and also when running scenarios with different inputs. We trust that the apparent anomalies will be addressed during the consultation process allowing a correct estimation of the WACC for the Irish Fixed and Mobile sectors to be determined. We remain available to ComReg and Europe Economics to clarify any of the points contained within this consultation response.

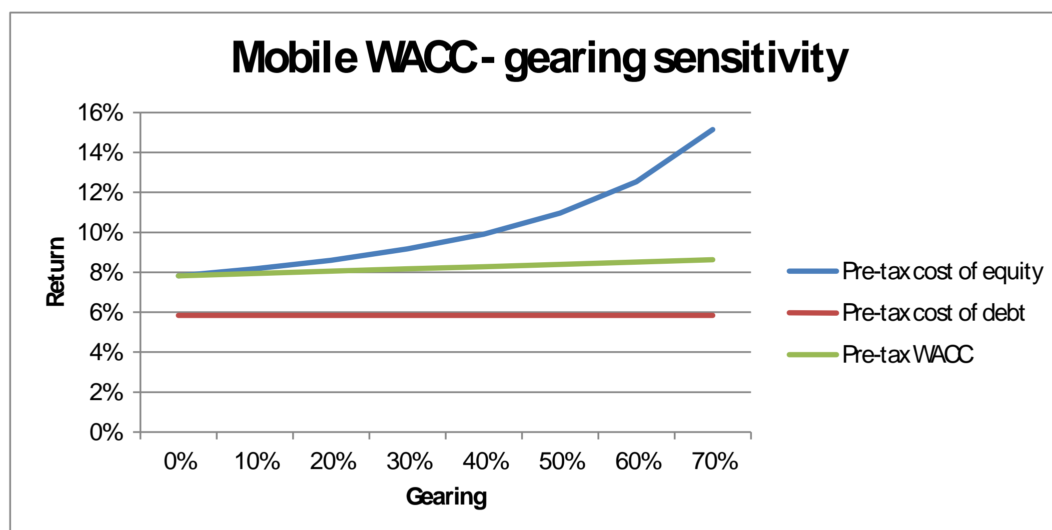
Vodafone has concentrated on the WACC estimates for mobile and fixed telecommunications. We do not comment on the individual parameters used for the broadcasting market.

In the following sections we first set out our concerns with how ComReg and Europe Economics have implemented the CAPM framework and the counter-intuitive results that ensue. Thereafter we set out our detailed comments on the individual parameters. At the end of the document we provide answers to ComReg's specific questions.

The implementation of the CAPM framework

Vodafone supports the use of the CAPM framework. A WACC which reflects the cost of equity, cost of debt and a target level of gearing (among other inputs) is well grounded in regulatory precedent and has strong support from finance academics. It is commonly accepted that a firm can reduce its cost of capital by introducing debt into the capital structure up to the point whereby the incremental saving from debt is offset by the increased risk of bankruptcy. This is the concept of optimal gearing.

When analysing ComReg's WACC calculation, it becomes apparent that this relationship doesn't hold. The chart below shows the relationship between gearing and return for the mobile WACC. The same directional relationship holds for the fixed WACC.



The pre-tax WACC is marginally increasing with all levels of gearing. The implication of this is that the optimal capital structure is one without any debt. This is a counter-intuitive conclusion and inconsistent with the empirical evidence in relation to the capital structure of Irish operators.

It is not clear to Vodafone whether the above relationship was intentional. The description of the CAPM framework in the Europe Economics report refers to the theory of Modigliani-Miller, whereby the WACC is constant at all levels of gearing. This theory has largely been replaced by alternative theories, including later variations of Modigliani-Miller which take into account both the impact of the debt tax shield and the impact of bankruptcy risk. The Europe Economics reports refers to these phenomena but does not clearly state which of the theoretical frameworks it is relying on.

We note that in this sensitivity analysis we have assumed that the cost of debt is independent of gearing. This has not been explicitly stated by ComReg or Europe Economics. However, the same cost of debt is assumed for mobile and fixed even though mobile gearing is 30% and fixed gearing is 40%.

In order to enhance the robustness of the WACC estimates, ComReg should consider how the debt premium varies with respect to gearing and beta. This will allow ComReg to properly assess whether the point input parameter estimates that been used result in the hypothetical operators being optimally geared.

Another related output that appears counter-intuitive is a comparison of the equity returns required for fixed and mobile. The return on equity required for fixed is actually higher than the return required for mobile, despite the inputs to the WACC calculation (gearing and asset beta) implying that the level of risk associated with fixed is lower than the risk associated with beta. The outcome of ComReg's calculation is that the equity beta for fixed is higher than the equity beta for mobile. Put in other words, ComReg's calculation implies that even though the fixed operator has a set of assets that are less risky than mobile, the efficient fixed operator will choose to gear to a level whereby its equity becomes more volatile than the equity of the efficient mobile operator. This outcome appears counter-intuitive.

The issues described above relate to both the static estimates and also Vodafone's own sensitivity analysis. Vodafone believes that by addressing the above points, ComReg will produce correct estimates of WACC.

Comments on individual parameters

The next section sets out Vodafone's views on the individual WACC parameters

Real risk-free rate.

Vodafone agrees with ComReg's determination of the real risk-free rate. Although it is described as being based on the yield on German government bonds, the final rate is heavily influenced by other relevant evidence. ComReg has used its professional judgement to determine the appropriate rate and Vodafone believes this judgement to be appropriate given that simply using the unadjusted yield on German government bonds would not have been appropriate.

Gearing

The gearing assumption is meant to reflect the gearing that a hypothetical efficient operator would adopt. ComReg has assumed 30% gearing for mobile and 40% for fixed. Vodafone does not believe this is fully supported by the available evidence. In assessing the gearing for mobile, ComReg identifies that pureplay mobile operators have gearing of around 20% but sets the gearing at 30%. On the other hand, in relation to fixed ComReg identifies that multi-play (i.e. fixed and mobile) operators have gearing at around 40% and sets the gearing for fixed at 40%. We believe there are two errors:

1. ComReg has relied on market evidence for fixed gearing but not given market evidence the same weight for mobile gearing.
2. The market evidence for fixed gearing should be adjusted for the mobile operations of the integrated operators. ComReg has identified that gearing for mobile operators is lower than fixed operators, but has not sought to adjust the gearing evidence from the integrated operators to reflect a stand-alone fixed operator.

Based on the two concerns above, we believe that ComReg has erred in setting the gearing differential at 10% for mobile vis-à-vis fixed.

Use of 2 year beta values for mobile and 5 year beta values for fixed

We note that ComReg relies on 2 year beta values for the mobile beta and 5 year beta values for the fixed beta. It is generally accepted that 5 year monthly beta estimates give a sufficient number of data points to ensure the statistical robustness of the beta estimates. When reviewing figure 6.3 of the Europe Economics report it is clear that the asset beta of Vodafone is systematically higher than the asset beta of the integrated fixed-mobile operators. Whilst the time-series data is not provided, the margin between the asset beta of Vodafone and the average asset beta of the integrated fixed-mobile operators appears to be around 0.2. This gives rise to two concerns:

The empirical evidence appears to support an asset beta for mobile being 0.2 higher than the for fixed-mobile integrated operators.

The asset betas for fixed-mobile integrated operators will overstate the asset betas for fixed only operators given that the mobile operations of the integrated operators have a higher asset beta

Based on the two concerns above, we believe that ComReg has erred in setting the asset beta differential at 0.05 for mobile vis-à-vis fixed.

Debt premium

ComReg has relied on the debt premium associated with Vodafone debt in coming to the conclusion that a debt premium of 1.5% is appropriate for mobile. An additional Irish specific premium of 0.25% is added on top. The same premia are applied for the fixed WACC.

We do not believe these inputs are consistent with the evidence available to ComReg. Figure 3 in ComReg's document shows that the debt premia for Vodafone, Orange, Telefonica and Deutsche Telekom have been very similar for the majority of the 7 years of data that is presented. There is only a one year period when the Telefonica

spread increased dramatically. This was most likely due to concerns over Telefonica's financial performance and the credit downgrade it received during that period. This would appear to support ComReg's view that the same debt premium can apply for mobile and fixed. However, a review of figure 6.1 in the Europe Economics reports shows that the similarity in debt premia has only been observed during a period when the gearing of Vodafone was significantly lower than the gearing of the other 'comparable' companies. This evidence shows that applying the same debt premium for mobile and fixed is only appropriate when the gearing spread is much larger than the 10% difference assumed by ComReg.

Therefore, Vodafone believes that whilst each of the individual estimates for beta, gearing and WACC could be justified in isolation, the assumptions that underlie this isolated assessment are not necessarily valid when the factors are considered in and produce outputs that are both counter-intuitive and inconsistent with the evidence available to ComReg.

Conclusion

The overall framework adopted by ComReg is appropriate and supported by regulatory precedent and the main bulk of academic literature. However, the specific implementation of the framework is inappropriate in a number of key areas and leads to a counter-intuitive outputs. We look forward to ComReg's views on this consultation response and trust that the final WACC determination will take into account the views that we have expressed so as to allow a correct estimation of the WACC for the Irish Fixed and Mobile sectors.

Responses to individual questions

Q. 1 Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Yes we agree that an appropriate implementation of CAPM is the optimal methodology for assessing WACC.

Q. 2 Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Vodafone agrees with ComReg's approach to estimating the generic parameters.

Q. 3 Do you agree with ComReg's proposed approach to estimating the WACC specific to the mobile telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Vodafone agrees with the high level approach to estimating the WACC for the mobile sector, but has concerns that ComReg has incorrectly treated some of the inputs used. These concerns are set out in the relevant sections above.

Q. 4 Do you agree with ComReg's proposed approach to estimating the WACC specific to the fixed line telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Vodafone agrees with the high level approach to estimating the WACC for the fixed sector, but has concerns that ComReg has incorrectly treated some of the inputs used. These concerns are set out in the relevant sections above.

Q. 5 Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

No view – the approach appears consistent with approach for mobile and fixed, but we do not comment on the assessment of individual parameters.

Q. 6 Do you believe that ComReg' should consider additional incentive based mechanisms in order to incentivise long term investments in infrastructure assets and provide an adequate allowance for bearing any associated systematic risks? How might such incentives be implemented in practice? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Vodafone does not believe the WACC should be used as a means for incentivising investment. The link between a higher WACC for the purpose of setting regulated wholesale prices and investment in infrastructure is not clear. Vodafone agrees with the approach of ComReg whereby a central estimate of WACC is developed. This central estimate would ensure that the incentive to invest is not damaged by the regulation of wholesale services. Vodafone also agree that the risk associated with underestimation and overestimation is asymmetric and therefore the aiming-up of the WACC is appropriate.

3 BT Communications Ireland Limited

Ms. Claire Kelly
Commission for Communications Regulation,
Block DEF,
Abbey Court,
Irish Life Centre,
Lower Abbey St,
Dublin 1.

16th May 2014

RE:
ComReg Consultation Reference: Submission re ComReg 14/28
Review of Cost of Capital,
Mobile Telecommunications, Fixed Line Telecommunications, Broadcasting (Market A and Market B)

Dear Claire,

We welcome this consultation to update the Weighted Average Cost of Capital (WACC) and would like to offer the following comments to the section addressing Fixed Line Telecommunications.

Outcome – We welcome the overall proposal to reduce the WACC from 10.21% to 8.44% in the Fixed Line Telecoms market based on your analysis of relevant information. However we consider the benefits are diluted in Ireland due to outdated price controls on some key products. For example high volume and mature products such as WLR are not in scope as they are regulated through retail minus regulation. We therefore consider for ComReg to make this proposal more effective the WLR Retail Minus price control must be replaced with the modern regulatory practice of cost orientation. This will establish the correct pricing signals to the market and remove market distortions that we believe currently exist.

Eircom debt situation – ComReg helpfully identify the debt structure at Eircom following Examiner-ship in 2012. Based on ComReg's comments at clause 6.20 that

Eircom should move towards an efficient capital structure over time, we agree with ComReg's proposal to normalise the valuation of the WACC against the expected debt/gearing of an efficient operator. This is pragmatic given the current debt structure and aligns with the common regulatory principle of regulating for an efficient operator.

Yours sincerely

John O'Dwyer
Head of Regulation at BT (Republic of Ireland)

BT Ireland is certified to International Standards: Quality Standard ISO 9001:2008 and Environmental Standard EN 14001:2004

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4 Alternative Operators in the Communications Market ("ALTO")

alto

alternative operators in the communications market

Consultation: Review of Cost of Capital: Mobile Telecommunications; Fixed Line Telecommunications; Broadcasting (Market A and Market B)- Ref: 14/28

Submission By ALTO

Date: May 16th 2014

ALTO is pleased to respond to the Consultation: Review of Cost of Capital: Mobile Telecommunications; Fixed Line Telecommunications; Broadcasting (Market A and Market B) - Ref: 14/28.

ALTO welcomes this opportunity to comment on this important consultation and would like to make the following general comments.

ALTO generally supports ComReg's preliminary conclusions relating to ComReg's Review of Cost of Capital in the Fixed Line Telecommunications market.

ALTO submits no views on the Review of Cost of Capital in the Mobile Telecommunications or Broadcasting markets in this response.

Analysis

ALTO notes that ComReg has adequately considered the rather unique configuration applicable to the ownership structure of the national Fixed Line Telecommunications market incumbent Eircom Limited.

Insofar as the Eircom Limited ownership structure includes bankers and equity houses, ALTO notes that ComReg's treatment of this issue, in respect of the Cost of Capital appears to be correct.

ALTO submits by way of observation, that ComReg should note that the servicing of debt by the incumbent network operator, Eircom Limited, may detract from required network investment in the areas of Current Generation Access – CGA, and Next Generation Access – NGA, facilities.

ALTO also calls on ComReg to very carefully analyse the current Cost of Capital consultation, ComReg's findings, and the methodologies employed to underpin any

future consultations and decisions, wherein applications for Universal Service Obligation – USO, funding is sought. ALTO views the Eircom Limited plans to re-invest in networks and services and below that of what is adequate in circumstances where notional owners of the organisation are seeking significant cash returns to service debts due and owning to those owners. Meanwhile, both ComReg and the wider communications industry continue to wrestle with persistent *ex post* applications for USO funding, for services that in many instances are either fully or partially obsolete.

Further, ALTO has recently learned that certain aspects of networks (Ducting and Dark Fibre) in Ireland fall into discrete regulated markets within the Communications Regulatory Framework that may not be available to new entrant operators. Thus creating market distortion that tends to effect new entrant operators' capital costs. Strictly speaking, this is not a matter that falls within the ambit of this consultation. It is however causing a significant strain on market competition and network access and has the effect of creating a capital expense that enhances the need for capital in the circumstances.

ALTO also notes that a number of regulated products have been deployed and continue to be modelled and allowed to operate on a retail minus basis. This poses certain challenges for new entrant operators, and indeed for ComReg. In relation to the measurement of Cost of Capital, ideally, products and offerings working on a retail minus basis should be quickly transitioned to cost oriented modelling to allow those offerings be properly reflected in regulatory finances.

Response to Consultation Questions:

Q.1. Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

A. 1. ALTO generally agrees with ComReg's that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for fixed line telecommunications.

ALTO has perused ComReg's findings and limits its observations to the fixed line telecommunications market only.

Q. 2. Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

A. 2. ALTO agrees with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen.

ALTO has perused ComReg's findings and limits its observations to the fixed line telecommunications market only.

Q. 3. Do you agree with ComReg's proposed approach to estimating the WACC specific to the mobile telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

A. 3. ALTO makes no comment on ComReg's proposed approach to estimating the WACC specific to the mobile telecommunications sector.

ALTO has perused ComReg's findings and limits its observations to the fixed line telecommunications market only.

Q. 4. Do you agree with ComReg's proposed approach to estimating the WACC specific to the fixed line telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

A. 4. ALTO agrees with ComReg's proposed approach to estimating the WACC specific to the fixed line telecommunications sector. ALTO observes that ComReg's findings appear to be inline with WACC methodologies deployed in markets where international ALTO members have given input to this consultation.

ALTO has perused ComReg's findings and limits its observations to the fixed line telecommunications market only.

Q. 5. Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please

explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

A. 5. ALTO makes no comment on ComReg's proposed approach to estimating the WACC specific to the Broadcasting sector.

ALTO has perused ComReg's findings and limits its observations to the fixed line telecommunications market only.

Q. 6. Do you believe that ComReg' should consider additional incentive based mechanisms in order to incentivise long term investments in infrastructure assets and provide an adequate allowance for bearing any associated systematic risks? How might such incentives be implemented in practice? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

A. 6. ALTO believes that ComReg should always be considering additional incentive based mechanisms in order to incentivise long term investments in infrastructure assets and provide an adequate allowance for bearing any associated systematic risks.

Q. 7. Do you believe that the draft text of the proposed decision instrument for Mobile Telecommunications is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any

specific amendments you believe are required.

A. 7. ALTO makes no comment on ComReg's proposed draft text of the proposed decision instrument for Mobile Telecommunications is from a legal, technical and practical perspective.

Q. 8. Do you believe that the draft text of the proposed decision instrument for Fixed Line Telecommunications is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

A. 8. ALTO agrees with the draft text of the proposed decision instrument for Fixed Line Telecommunications in its currently proposed form.

Q. 9. / Q. 10. Do you believe that the draft text of the proposed decision instrument for Broadcasting - Market A / Market B, is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

A. 9. / A.10 ALTO makes no comment on ComReg's proposed draft text of the proposed decision instrument for Mobile Telecommunications is from a legal, technical and practical perspective.

ALTO

16th May 2014

5 British Sky Broadcasting Limited

SKY IRELAND RESPONSE TO

REVIEW OF COST OF CAPITAL

1. EXECUTIVE SUMMARY

1.1 This is the response of Sky Ireland ("Sky") to ComReg's consultation entitled: *"Review of Cost of Capital"* (Document No. 14/28) dated 11 April 2014 (the "Consultation").

1.2 Sky welcomes this opportunity to respond to the Consultation and we have confined our response to ComReg's review of the cost of capital for fixed line telecommunications.

1.3 Sky is broadly in agreement with the approach proposed by ComReg. However, we have specific comments with respect to the Beta parameter in the fixed line telecommunications cost of equity.

2. GREAT CARE NEEDS TO BE EXERCISED IN SELECTING THE APPROPRIATE BETA

2(A) The comparators for the Beta analysis should be on the basis of a HEO

2.1 ComReg states in the Consultation that Europe Economics ("EE") relies on *"…regulatory precedent and comparator analysis to estimate the efficient Beta for a Hypothetical Efficient Fixed Line Operator ("HEO")."*[1] EE states in its report that *"…there may be pragmatic reasons…for departing from a regulatory WACC estimated on such a basis [i.e. HEO], but such a departure would require sufficient justification."* [2] Sky notes EE's conclusion in this regard and considers that in order for the final estimate of Beta to be reflective of a HEO, the precedents and comparators that inform that analysis should, where possible, be equally reflective of a HEO.

2.2 In relation to the regulatory precedents used to inform its analysis, Sky notes that EE has listed 6 such precedents (excluding Ireland) for unlevered Betas. However, EE does not indicate whether or not the precedents were selected by reference to their being derived on the basis of HEO in those jurisdictions. Sky considers that ComReg needs to establish this with EE, prior to making a final decision on the appropriate Beta. If some or all of the Betas have *not* been established on the basis of the HEO, the impact on ComReg's final estimate of the fixed line Beta is likely to be biased upward. Clearly, this can have implications for eircom's allowable fixed line telecommunications weighted average cost of capital ("WACC") and in turn, eircom's allowed return on investment under the regulatory price controls set by ComReg.

2.3 In relation to the comparator company Betas used to inform its analysis, Sky notes that EE has drawn these from two year, rolling, unlevered Betas for selected European fixed line incumbents. It is not clear what analysis has been conducted by EE to establish to what

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[1] See the Consultation, at page 53.

[2] "Cost of Capital for Mobile, Fixed Line and Broadcasting Price Controls - Report for ComReg" (Europe Economics, April 2014) at page 13.

extent these incumbents are a good proxy for a HEO. This analysis (and any supporting evidence) should be clearly presented by EE/ComReg. As noted by EE in its report, the relevant WACC is not necessarily that of the incumbent firm. While Sky agrees with this conclusion, it also considers that ComReg should be equally cautious of this fact when choosing the comparator set of companies.

2 (B) ComReg should consider Beta disaggregation

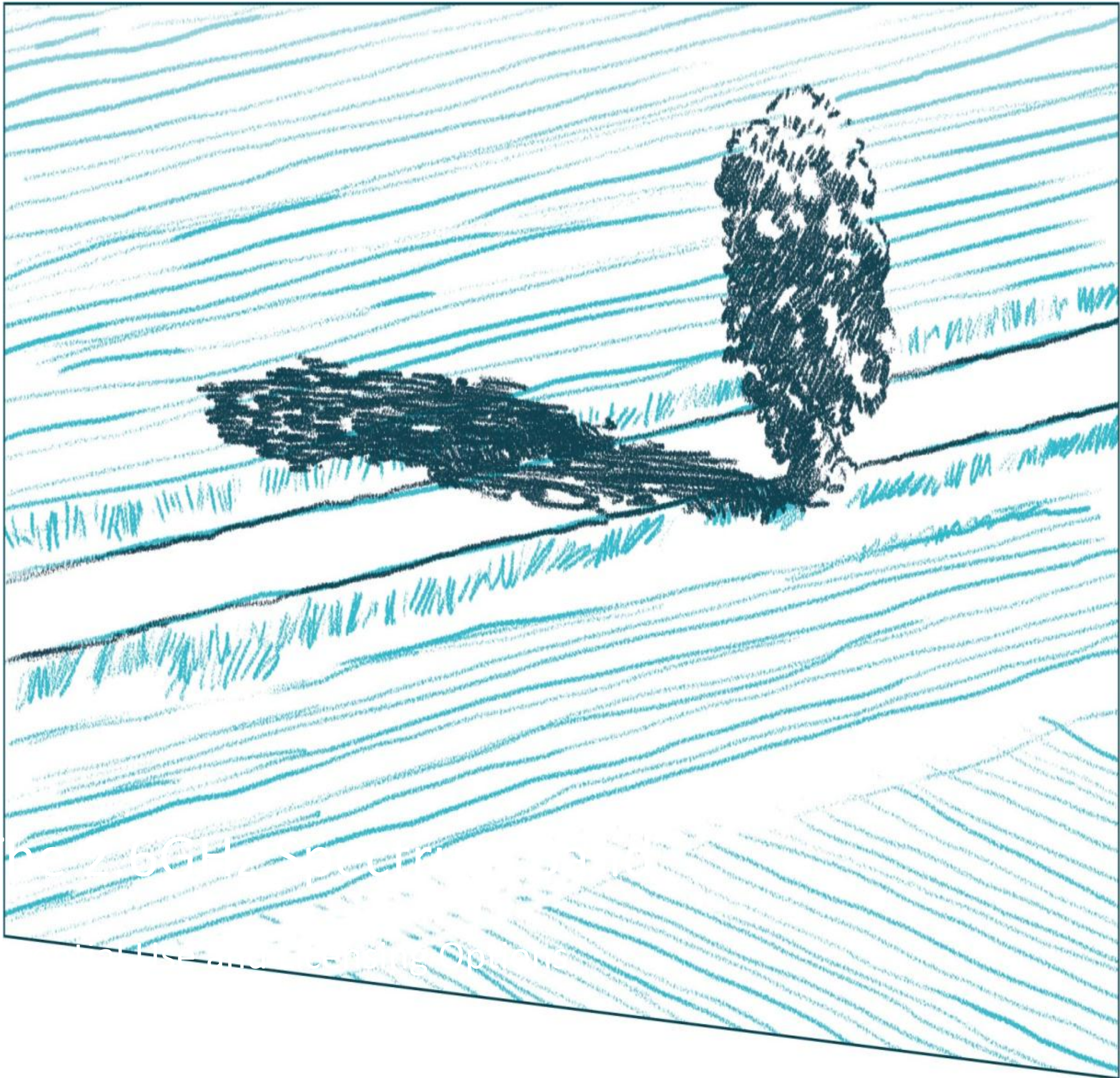
2.4 Sky notes that out of the comparator companies considered, EE does not (except in the case of Orange) disaggregate the Betas based on each of the operators' different lines of business. Sky recognises that this may not be a straightforward exercise; indeed, as noted by EE, only Orange disaggregates its accounts on the basis of its wireline and wireless business units. Notwithstanding this, given EE's analysis of the Orange disaggregated Beta and the precedent it cites from OFCOM with respect to the Beta of BT, the available evidence suggests that disaggregating the Beta for these companies would likely result in a *lower* asset Beta for the fixed line business units than the Beta for the company as a whole. Accordingly, Sky considers that EE/ComReg should consider Beta disaggregation, if this is possible, as it could have a significant bearing on the selection of an appropriate Beta[3].

2.5 Finally, based on the issues outlined above ComReg should be cognisant that it is likely to have already made some allowances (independent of 'aiming up') that are upwardly biased in its estimation of the Beta parameter. Sky considers that ComReg needs to factor in this likelihood, when making its final determination in relation to the fixed line telecommunications WACC.

Sky **8 May 2014**

[3] We would note that disaggregation need not be limited to the cost of equity and can be applied to the cost of debt as well (as Ofcom has done with respect to BT Openreach's copper access business in the UK.).

6 Telefónica Ireland Limited



Response to ComReg Document 14/28
Cost of Capital

16th May 2014

Telefónica

Telefonica Ireland Ltd is pleased to response to ComReg's consultation document on the review of cost of capital. Responses to individual questions are detailed below.

Q. 1 Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views

Telefonica agrees that a CAPM-based WACC is the most appropriate basis for calculating cost of capital.

Q. 2 Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Telefonica agrees in general with ComReg's estimates and parameters; however it has a number of observations as below.

Telefonica notes the use of German bonds to assess the risk free rate and the view that Irish bonds remain too volatile to be considered as a proxy for a risk free rate of return. German bonds however have suffered in recent years with a flight to quality where returns in some cases could be near zero or negative. The yields reflect that country's performance and do not reflect the general experience of sovereign bond yields across Europe. Where it is correct to have an EU bond to deflect currency issues, consideration should be given to using other larger countries such as Spain or Portugal as a base for the risk free rate.

Although we are coming out of a volatile period in terms of bond yields there are still spreads which reflect the speculative nature of the bond markets. There is an assumption that in coming years the German yields will increase and the Irish bond market will stabilise. Given that scenario it is a firm recommendation of Telefonica that the cost of capital assumptions are reviewed again within the next two years to ensure all assumptions remain valid.

Q. 3 Do you agree with ComReg's proposed approach to estimating the WACC specific to the mobile telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Telefonica notes that ComReg has developed a notional gearing based on an efficient operator model. It is also noted that the gearing estimates on mobile and fixed operators differ despite a

number of mobile only operators in Ireland being part of transnational fixed/mobile companies. From a gearing perspective the corporate group is the correct source of gearing estimates and in that context for many Irish operators fixed and mobile are essentially the same.

The Europe Economics report shows that Telefonica which has both fixed and mobile assets has a gearing level of 53%. In terms of calculating gearing ComReg should consider that both Vodafone and Telefonica are part of multi service operating companies and as such have higher gearing ratios than pure mobile only operators. It is also noticeable that gearing levels of companies tracked by Europe Economics are significantly higher in recent years given the significant levels of debt held by major telcos.

In relation to betas, Telefonica would note that Europe Economics make a number of assumptions around the maturity of mobile business; however figure 2 of ComReg's consultation document points to an increase in betas in 2013 due mainly to increased volatility around the telecoms business model. This is likely to remain high.

Q. 4 Do you agree with ComReg's proposed approach to estimating the WACC specific to the fixed line telecommunications sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

No Comment

Q. 5 Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

No Comment

Q. 6 Do you believe that ComReg' should consider additional incentive based mechanisms in order to incentivise long term investments in infrastructure assets and provide an adequate allowance for bearing any associated systematic risks? How might such incentives be implemented in practice? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Telefonica has no comments on other incentive mechanisms

Q. 7 Do you believe that the draft text of the proposed decision instrument for Mobile Telecommunications is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

Telefonica would suggest that the decision instrument should form part of the decision instrument implementing the cost model for mobile termination rates. It would appear unnecessarily complex to have a separate decision instrument based solely on the cost of capital.

Q. 8 Do you believe that the draft text of the proposed decision instrument for Fixed Line Telecommunications is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

No Comment

Q. 9 Do you believe that the draft text of the proposed decision instrument for Broadcasting - Market A is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

No Comment

Q. 10 Do you believe that the draft text of the proposed decision instrument for Broadcasting – Market B is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

No Comment

7 Hutchison 3G Ireland Limited

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Ms Claire Kelly
Commission for Communications Regulation
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Irish Life Centre
Lower Abbey Street
Dublin 1
BY EMAIL: wholesaleconsult@comreg.ie; claire.kelly@comreg.ie

16 May 2014

Dear Ms Kelly

RE: SUBMISSION RE COMREG 14/28

I refer to ComReg Doc. No. 14/28, *"Review of Cost of Capital, Mobile Telecommunications, Fixed Line Telecommunications and Broadcasting (Market A and Market B)"* ("ComReg's Cost of Capital Consultation and Draft Decision").

As ComReg is aware, Hutchison 3G Ireland Limited ("Three") is currently seeking European Commission merger approval for its acquisition of O2 and this process is nearing completion. The deadline for a decision by the European Commission is 20 June 2014. If Three is successful in obtaining European Commission merger approval, the acquisition by Three of O2 could have a significant impact on the information gathered to date by ComReg, ComReg's approach to the cost of capital for mobile telecommunications and Three's response to ComReg's related consultation. As a result, Three believes that it is premature (and disproportionate) for ComReg to consult in respect of this matter until the outcome of the above approval process is known.

Without prejudice to the above, Three reserves the right to raise any points made by third parties in response to ComReg's Cost of Capital Consultation and Draft Decision in any subsequent challenge to ComReg's resulting decision.

Yours sincerely

CATRIONA COSTELLO
Senior Regulatory Affairs Manager

Directors
Canning Fok: British
Frank Sixt: Canadian
Christian Salbaing: French
Robert Finnegan: Irish
Simon Henry: British
David Hennessy: Irish

A Hutchison Whampoa Company

8 RTÉ/2rn

Review of Cost of Capital

2rn and RTÉ reply to ComReg consultation 14/28 of 11/04/2014

9 May 2014

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Glossary

Term	Definition
2rn	RTÉ Transmission Network Limited.
CAPM	Capital Asset Pricing Model.
ComReg	ComReg.
the Consultation	ComReg, Review of Cost of Capital, Reference: ComReg 14/28, 11 April 2014.
DGM	Dividend Growth Model.
DMS	Dimson, Marsh and Staunton.
DTT	Digital Terrestrial Television.
ERP	Equity Risk Premium.
HML	The book-to-value factor, High Minus Low (book-to-value ratio).
Market A	Wholesale access to National Terrestrial Broadcast Transmission Services.
Market B	Wholesale access to Digital Terrestrial Television Multiplexing Services.
RIM	Residual Income Model.
SMB	The size factor, Small Minus Big (market capitalization).
WACC	Weighted Average Cost of Capital.

1. Introduction

1.1 2rn and RTÉ appreciate the opportunity to comment on the Commission for Communication Regulation's ("ComReg") Review of Cost of Capital consultation (the "Consultation").[1] ComReg raises questions that specifically relate to 2rn and RTÉ in Sections 3, 4, and 7 and Annexes 3 and 4 of the Consultation.

1.2 Section 3 of the Consultation relates to the methodological framework for determining the cost of capital. 2rn and RTÉ provide joint comments on ComReg's recommendation and supporting rationales in Section 2 below.

1.3 Section 4 of the Consultation relates to generic weighted average cost of capital ("WACC") parameters. 2rn and RTÉ provide joint comments on ComReg's recommendation and supporting rationales in Section 3 below.

1.4 Section 7 of the Consultation relates to parameters specific to the broadcasting markets. 2rn and RTÉ provide joint comments on ComReg's recommendation and supporting rationales in Section 4 below.

1.5 ComReg invites responses to a single question in each of sections 3, 4 and 7 of the Consultation. Each of these questions relates to a number of proposed methodologies and/or specific estimates. We assess each of these issues individually. For each, we summarise our understanding of the arguments presented by ComReg or which ComReg has relied upon as reflected in the supporting documentation from Europe Economics.[2] We then provide our assessment of the approach and/or the specific parameter values proposed by ComReg. Our comments apply equally to 2rn and RTÉ. 2rn and RTÉ note that the proposed cost of capital is to be reviewed after a three-year period. [3] Our assessments of the proposed parameter estimates reflect this time horizon.

1.6 In Section 5 we present updated calculations of the cost of capital reflecting minor adjustments to beta and gearing assumptions as discussed in Section 4. We also show the impact of including a premium for illiquidity and an Irish Equity Issuance Premium as discussed in Section 2.

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1 ComReg, Review of Cost of Capital, 11 April 2014.

2 Europe Economics, Report for ComReg, April 2014.

3 ComReg, Review of Cost of Capital, 11 April 2014: footnote 13.

1.7 In Annex 3 and Annex 4 ComReg publishes draft decision instruments for Market A and Market B respectively and in each case invites a response to a single question regarding the legal, technical and practical precision and clarity of the draft instruments. In Section 6 we provide a single response to both question 9 for Market A and question 10 for Market B.

2. Methodological Framework

Consultation question

2.1 In Section 3 of the Consultation, ComReg considers the WACC and Capital Asset Pricing Model ("CAPM") methodological framework. In response to criticisms raised against CAPM, ComReg also considers alternative methods for estimating the cost of equity. ComReg consults on the following question:

> *"Q. 1 Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views".*[4]

2.2 Below, 2rn and RTÉ consider ComReg's assessment of:

(1) The WACC and CAPM framework; and

(2) Alternative approaches to determining the cost of equity.

The WACC and CAPM framework

2.3 ComReg proposes to retain the WACC and CAPM based framework for setting the cost of capital. ComReg notes that CAPM is:

(1) "*the most common way to estimate the cost of equity*";[5]

(2) "*forward-looking*";[6]

(3) supported by "*clear theoretical foundations*";[7]

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4 ComReg, Review of Cost of Capital, 11 April 2014: page 25.

5 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.6.

6 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.18.

(4) "*well integrated with the rest of the finance theory*";[8]

(5) "*the best empirically performing model when explaining asset prices in the long run*";[9]

(6) the preferred methodology amongst national regulatory authorities, businesses and jurisdictions in Europe;[10] and

(7) the method used in "*the past two revisions of Eircom's cost of capital*" and that changing method therefore would require "*significant justifications to endorse such a move*".[11]

2.4 However, ComReg recognises that a number of challenges have been raised against CAPM:

(1) it "*includes only traded assets*" and therefore "*the return on these assets may be sensitive to additional factors not captured by the CAPM*";[12]

(2) "*historic estimates are relied upon as proxies for forward-looking estimates*";[13]

(3) "*small firms […] have higher returns than predicted by the CAPM, and/or […] some firms with low book to market value ratios having higher expected returns than predicted by CAPM*";[14] and

(4) the standard CAPM method does not "*account for investors' preferences about the skewness of returns*".[15]

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[7] ComReg, Review of Cost of Capital, 11 April 2014: paragraphs 3.16 and 3.25; and Europe Economics, Report for ComReg, April 2014: page 13.

[8] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.16.

[9] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.16.

[10] ComReg, Review of Cost of Capital, 11 April 2014: paragraphs 3.14 and 3.16; and Europe Economics, Report for ComReg, April 2014: pages 7 and 13.

[11] ComReg, Review of Cost of Capital, 11 April 2014: paragraphs 3.14 and 3.25.

[12] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.17.

[13] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.18.

[14] Europe Economics, Report for ComReg, April 2014: pages 9 and 10.

[15] Europe Economics, Report for ComReg, April 2014: page 10.

2.5 Europe Economics does not consider that the issue of skewness of returns is relevant in the current context as "*given the relative maturity of the telecommunications markets analysed here, it is not clear that there is a good case for the existence of "blockbuster" opportunities that would generate the sort of upside risk that would generate positive skewness*".[16] In response to the other points of criticism, Europe Economics considers three other approaches to determining the cost of equity, as set out below.

Alternative approaches to determining the cost of equity

2.6 **The Fama-French three factor model** estimates the return on equity based on an equity risk premium ("ERP"), a size factor (small minus big or "SMB") and the book-to-value factor (high minus low or "HML").[17] However, ComReg notes that:

(1) "*the SMB and HML factor coefficients in the Fama-French model are very unstable over time*";[18]

(2) the absence of "*Irish-specific versions of the additional factors*" (such as SMB and HML) "*reduces the efficacy of the Fama-French methodology*";[19]

(3) it "*requires significant effort in estimating factor risk premiums and factor loadings with no clear evidence that an improved estimate of the cost of capital results relative to the simpler CAPM*";[20] and

(4) the UK Competition Commission rejected this method as they "*do not consider that there is robust UK empirical evidence of small firms being more risky and hence having a higher cost of capital*".[21]

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16 Europe Economics, Report for ComReg, April 2014: page 13.

17 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.11.

18 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.23.

19 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.23.

20 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.22.

21 Europe Economics, Report for ComReg, April 2014: page 10.

2.7 ComReg notes that the **Dividend Growth Model ("DGM")** "*is relatively simple, in a technical sense, and it has been frequently used in the United States of America*".[22] However, ComReg notes that:

(1) the DGM provides "*no explicit guidance on the risks that are to be compensated through the cost of capital*";[23]

(2) estimates calculated using the DGM model "*are less precise than those given by the CAPM*";[24]

(3) forecasts of future dividends and their growth rate required for the DGM are subject to "*a number of sources of bias and inaccuracy*";[25] and

(4) the DGM "*assumes that future dividends will grow at a constant rate which is unlikely to be realistic*".[26]

2.8 Europe Economics states that the **Residual Income Model ("RIM")** "*is conceptually similar to the DGM*" while having "*the advantage of being less reliant upon analyst forecasts*".[27] However, the RIM relies on estimates of future net income and equity book values. Europe Economics note that while "*these can be proxied by using analysts' forecasts and/or applying plausible future growth rates to current values, there remains uncertainty as to the appropriate choices of these inputs*".[28]

2.9 Considering "*the strengths and weaknesses of the aforementioned methodologies applied to cost of capital estimation*"[29] ComReg concludes that "*WACC and CAPM continues to be the most straightforward framework for estimating the cost of capital for each of the sectors*".[30]

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22 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.10.

23 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.9.

24 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.20.

25 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.20.

26 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.21.

27 Europe Economics, Report for ComReg, April 2014: page 12.

28 Europe Economics, Report for ComReg, April 2014: page 12.

29 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.24.

30 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 3.24.

Risk factors not reflected in the standard WACC and CAPM approach

2.10 ComReg does not include a small company premium in the calculation of the cost of capital for 2rn and RTÉ. Also, ComReg includes an adjustment in its assessment of the cost of debt to account for the fact that "*Irish bonds of a given credit rating carry a premium over German bonds of the same rating*".[31] No such adjustment is made for the cost of equity. These points are discussed below.

Small company premium

2.11 2rn and RTÉ note that, considering the size of the Irish market, an efficient hypothetical operator would be relatively small. Europe Economics states that the "*theory, evidence and substantial effect (in terms of there being any "small company premium" to the cost of capital) were rejected comprehensively by the UK Competition Commission in the Bristol Water case*".[32] 2rn and RTÉ consider that this statement does not accurately reflect the Bristol Water decision.

2.12 In the Bristol Water case, the UK Competition Commission considered that a small company premium may be attributable to illiquidity costs[33] and systematic risk.[34] This is consistent with the academic literature, for example Shannon P. Pratt and Roger J. Grabowski stating that:[35]

> *"academic studies support the hypothesis that illiquidity is a factor in pricing and returns of stocks, and that small firms are more sensitive to market liquidity, but [that] the illiquidity factor does not capture the size effect completely."*

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31 ComReg, Review of Cost of Capital, 11 April 2014: page paragraph 7.44.

32 Europe Economics, Report for ComReg, April 2014: page 10.

33 UK Competition Commission, Bristol Water plc, Presented to Ofwat on 4 August 2010: Appendix N; paragraphs 125 and 126.

34 UK Competition Commission, Bristol Water plc, Presented to Ofwat on 4 August 2010: Appendix N; paragraphs 127 to 130.

35 Shannon P. Pratt and Roger J. Grabowski, "Cost of Capital: Applications and Examples": Transaction costs section.

2.13 As noted by Europe Economics, the UK Competition Commission states that "*the arguments for a higher cost of equity due to small size in itself are weak*".[36] However, the UK Competition Commission concludes that:[37]

> *"we see merit in the argument that WoCs, including Bristol Water, have higher systematic risk than the WaSCs and therefore increase Bristol Water's asset beta by 18 per cent (see paragraph 129). We noted in paragraph 129 that this was likely to overestimate the relevant effect, and we consider that the overestimate of this aspect should offset our not allowing explicitly for the transaction costs involved in buying and selling smaller companies".*

2.14 It is therefore not accurate to state that the UK Competition Commission dismissed the concept of the small company premium in the Bristol Water case. Rather, the UK Competition Commission did not include a separate adjustment for illiquidity costs as these already were reflected in another adjustment that the Competition Commission allowed.

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36 UK Competition Commission, Bristol Water plc, Presented to Ofwat on 4 August 2010: Appendix N; paragraph 137.

37 UK Competition Commission, Bristol Water plc, Presented to Ofwat on 4 August 2010: Appendix N; paragraph 137 (emphasis added).

2.15 The precedent from the Bristol Water case is consistent with the Mid Kent Water case assessed by the UK Competition Commission. In the Mid Kent Water case, the UK Competition Commission also acknowledged the presence of small company premium attributable to low liquidity.[38] The UK Competition Commission estimated the value of this premium as 1% based on an assessment of trading spreads and an expected five year investment horizon.[39] This also falls in the low end of the 0.8% to 2.5% range suggested by Duff & Phelps' analysis of size premiums.[40] 2rn and RTÉ believe that this is an appropriate estimate also for 2rn and RTÉ.[41]

Ireland specific equity risks

2.16 ComReg includes in the cost of debt an Irish Debt Issuance Premium in addition to the Broadcasting Debt Premium to reflect that "*Irish bonds of a given credit rating carry a premium over German bonds of the same rating, either because of higher perceived debt beta or higher risk of default*".[42] ComReg considers that this premium is 0.25%.[43]

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38 UK Competition Commission, Mid Kent Water Plc, 4 August 2000: paragraph 8.35 *et seq*.

39 UK Competition Commission, Mid Kent Water Plc, 4 August 2000: paragraphs 8.39 and 8.40 and Table 8.4.

40 Analysis based on Duff and Phelps, Risk Premium Report 2011, Exhibit B-7 (i.e. assessing size by revenue). American Tower and Crown Castle were matched to the 12th size bracket, SBA Communications to the 18th size bracket, EI Towers to the 24th size bracket, and 2rn and RTÉ in the 25th size bracket based on FY2013 revenue sourced from Bloomberg for the comparator companies. The 0.8% to 2.5% range is calculated as the difference in the "Smoothed premium over CAPM" between the 25th bracket (in which 2rn and RTÉ are) and the brackets of the comparator companies identified by Europe Economics.

41 2rn and RTÉ note that precedent recognised liquidity premiums for small listed companies. 2rn and RTÉ are not listed. The argument for a liquidity based premium is therefore even stronger for 2rn and RTÉ.

42 ComReg, Review of Cost of Capital, 11 April 2014: page paragraph 7.44.

43 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.51.

2.17 ComReg's conclusion is based on an analysis performed by Europe Economics.[44] Europe Economics assesses the spreads of European utility bonds over German bunds.[45] Europe Economics does not exhibit the underlying data. However, Figure 5.2 in Europe Economics' analysis shows that the difference between the spreads paid by German utilities and Irish utilities in the period 2006 to 2013 rose to levels occasionally exceeding 5.0%. This significantly reduces the difference between the estimated cost of debt and the estimated cost equity for an Irish operator and thereby the additional return that equity investors would expect in exchange for the additional risk that they face compared to debt holders in the same company.

2.18 It is uncontroversial that the cost of equity exceeds the cost of debt as equity holders only can receive a return after any debt has been serviced. Any additional risk affecting debt holders should therefore also affect equity holders. Acknowledging such a risk only in the cost of debt (i.e. assuming that that the cost of equity is unaffected) suggests that Irish equity investors would require a smaller premium over the cost of debt *because* debt holders consider that investing in Ireland is *more risky* than investments e.g. in Germany. This is logically inconsistent with finance theory. It therefore follows from ComReg's recognition that there is an Irish Debt Issuance Premium that a similar premium also must exist for Irish equity.

2.19 ComReg and Europe Economics do not assess the potential magnitude of an equity equivalent to the Irish Debt Issuance Premium (in the following, an Irish Equity Issuance Premium). However, given debt holders' preferred status compared to equity investors, an Irish Equity Issuance Premium must be at least at the level of the Irish Debt Issuance Premium. 2rn and RTÉ therefore suggest that an Irish Equity Issuance Premium of at least 0.25% is added to the post tax cost of equity. This is significantly less than the country risk premium for Ireland of 3.75% assessed by Professor Aswath Damodaran of the Stern School of Business in January this year.[46]

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44 Europe Economics, Report for ComReg, April 2014: section 5.3.3.

45 Europe Economics, Report for ComReg, April 2014: Figure 5.2.

46 http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

Conclusion on methodological framework

2.20 ComReg consults on the appropriateness of retaining the WACC and CAPM framework for estimating the cost of capital:[47]

> *"Q. 1 Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views".*

2.21 **2rn and RTÉ agree** that it is appropriate to estimate the cost of capital using the WACC and CAPM framework. 2rn and RTÉ specifically consider that the WACC and CAPM framework has strong regulatory and commercial precedent internationally and in Ireland. Moreover, no alternative approach has so far proven superior to the WACC and CAPM framework from a methodological or practical point of view.

2.22 **2rn and RTÉ disagree** with the exclusion of a small company premium. The rationale presented by Europe Economics does not accurately reflect the precedent to which Europe Economics refers. On the contrary, the precedent quoted by Europe Economics support the inclusion of a small company premium.

2.23 **2rn and RTÉ disagree** with ComReg's omission of an Irish Equity Issuance Premium. The logical consequence of the factors reflected in ComReg's decision to include an Irish Debt Issuance Premium in the cost of debt is to also include a similar premium in the cost of equity.

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47 ComReg, Review of Cost of Capital, 11 April 2014: page 25.

3. Generic WACC Parameters

Consultation question

3.1 In Section 4 of the consultation document, ComReg determines the WACC parameters which are generic to all the markets considered. These parameters are:

(1) the risk free rate;

(2) the equity risk premium; and

(3) taxation.

3.2 In relation to these, ComReg consults on the following question:[48]

> *"Q. 2 Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views".*

3.3 This question is addressed for each of the components considered below in relation to the methodology applied and the proposed parameter value estimates.

The risk-free rate

Methodology to assess nominal risk free rate

3.4 ComReg estimates a nominal risk-free rate "*to be consistent with the non-indexed historical asset valuation in the pricing model*".[49] Europe Economics estimates the nominal risk free rate based on separate estimates of the real risk free rate and inflation and combining these through the Fisher equation "*since changes in the nominal risk-free rate can occur due to changes in the real risk-free rate or changes in inflation*".[50]

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48 ComReg, Review of Cost of Capital, 11 April 2014: page 32.

49 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.4.

50 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.5.

3.5 **2rn and RTÉ agree** that it is appropriate to determine the nominal risk free rate by determining the real risk free rate and inflation expectations separately. This reflects that these are the components of the nominal risk free rate. Any estimate of the nominal risk free rate would therefore need to be consistent with investors' required real rate of return and expected inflation expectations.

Methodology to assess the real risk free rate

3.6 ComReg proposes to use a 10 year German Government bond as benchmark for determining the real risk free rate, for the following reasons:

(1) "*Irish government bonds do not meet the risk-free asset criteria*";[51]

(2) "the *German economy has exhibited signs of stability over recent years with minimal risk of default or inflation risk*";[52]

(3) "*German bonds had both the lowest average yield and the least yield volatility*" within the core Eurozone;[53]

(4) Germany has a "*triple A rating given by all major credit rating companies*";[54]

(5) German government bonds are "*considered as the closest proxy to what is considered to be a risk-free Irish asset*";[55]

(6) German bonds are Euro denominated and therefore do not imply any currency risk; [56]

(7) 10 year bonds are "*less affected by movements in short-term interest rates than short-term borrowings such as 1 year bonds, and in any case, such short-term borrowing is not typically used to finance long-term investment projects*";[57] and

(8) There is precedent of using "*the 10-year German bond as the benchmark risk-free asset for the Eurozone as a whole. This practice is, to varying degrees, endorsed also by a number of academic studies*".[58]

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[51] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.8.

[52] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.8.

[53] Europe Economics, Report for ComReg, April 2014: page 21.

[54] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.8.

[55] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.8.

[56] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.8; and Europe Economics, Report for ComReg, April 2014: page 19.

[57] Europe Economics, Report for ComReg, April 2014: page 21.

[58] Europe Economics, Report for ComReg, April 2014: page 20.

3.7 However, Europe Economics note that "*some German inflation-linked bonds are pricing at a negative yield*".[59] Europe Economics attributes this to:[60]

(1) "*the European sovereign debt crisis has boosted demand for German debt at the expense of peripheral country debt, lifting the price and lowering the yields of German bonds*"; and

(2) "*quantitative easing in a number of countries has increased the global amount of liquidity in the financial system. This has boosted the prices of a variety of asset classes, including German government bonds*".

3.8 Europe Economics therefore considers historical pre-crisis yields on the basis that:[61]

(1) "*given the expected recovery in the Irish economy during the price control period, the appropriate risk-free rate is likely to be more in line with the pre-crisis rate than in more recent depressed conditions*"; and

(2) "*this is before flight to quality and excess liquidity effects drove down German yields, so such distortions do not affect or interpretation of the yields*".

3.9 **2rn and RTÉ agree** that the current very low market interest rates reflect the recent financial crisis and associated extraordinary measures adopted by central banks. These market conditions are unlikely to persist and therefore do not reflect reasonable expectations for the risk free rate over the charge control period. Historical real risk free rates from before the recent crisis are therefore more likely to represent a good approximation of future real risk free rates. The use of a 10 year bond is consistent with the fact that most of the relevant capital investments are of a long term nature.

Parameter value estimation (real risk free rate)

3.10 ComReg recommends a 2.3% point estimate for the real risk free rate based on:[62]

(1) average historical real returns on 10 year German Government bonds of 2.58% over the period 2000 to 2007;[63]

(2) "*that the real yield in 2000 was also particularly high and likely pulls up the average*" 10 year real German Government bond rate;[64]

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[59] Europe Economics, Report for ComReg, April 2014: page 22.

[60] Europe Economics, Report for ComReg, April 2014: page 22.

[61] Europe Economics, Report for ComReg, April 2014: page 23.

[62] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.11.

[63] Europe Economics, Report for ComReg, April 2014: page 25.

[64] Europe Economics, Report for ComReg, April 2014: page 25.

(3) Europe Economics' advice to the Commission for Energy Regulation indicating a risk free rate range of 1.75% to 2.00% for 2014 to 2015 reflecting expected improvements in the Irish economy;[65] and

(4) regulatory precedent suggesting a real risk free rate in the range of 2.0% to 3.0%, averaging 2.5% since 2000.[66]

3.11 Europe Economics concludes that the real risk free rate falls in range of 1.75 to 2.50% and proposes a point estimate of 2.3% based on the "*balance of probabilities on economic upside*".[67]

3.12 **2rn and RTÉ agree** that a 2.3% real risk free rate is an appropriate forward looking estimate. This is consistent with historical real yields on German government bonds as well as regulatory precedent.

Parameter value estimation (expected inflation)

3.13 ComReg proposes a point estimate of 1.75% for expected annual inflation in Ireland.[68] This represents the mid-point of an inflation rate range of 1.50% - 2.00% based on:[69]

(1) "*Bloomberg's forecast of 1.5% Irish inflation in 2015 (estimated as of February 2014)*";[70]

(2) Bloomberg's 2015 consensus inflation forecast for Germany is 1.9%;[71] and

(3) the estimation that Irish economy will improve during the period of the price control, and thus will have an inflation rate "*close to European Central Bank's inflation target of 'below, but close to 2%'*".[72]

3.14 **2rn and RTÉ agree** that a 1.75% inflation rate estimate is an appropriate forward looking estimate considering particularly Bloomberg consensus inflation forecasts for Ireland and Germany.

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[65] Europe Economics, Report for ComReg, April 2014: page 25 and Figure 4.6.

[66] Europe Economics, Report for ComReg, April 2014: page 26.

[67] Europe Economics, Report for ComReg, April 2014: page 26.

[68] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.12.

[69] Europe Economics, Report for ComReg, April 2014: page 28.

[70] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.12.

[71] Europe Economics, Report for ComReg, April 2014: page 28.

[72] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.12.

3.15 2rn and RTÉ note Europe economics' statement that "*if Irish inflation were to maintain this average, then inflation going forward would have to be slightly higher than this, to compensate for recent low levels of price increases*".[73] This suggests that forward looking inflation levels may exceed the 1.75% estimate proposed by Europe Economics and ComReg and therefore this should be the minimum value assumed for inflation over the price control period.

The Equity Risk Premium

Methodology

3.16 ComReg and Europe Economics estimate the ERP based on reviews of regulatory precedent and long run historical evidence.[74,75]

3.17 Europe Economics' assessment of long run historical evidence for the ERP is based on arithmetic mean data compiled by Dimson, Marsh and Stauton ("DMS"). Europe Economics relies on this source and averaging approach as:

(1) DMS provides very long-run historical data, which reduces the risk of "*sampling only a part of the distribution of equity returns*";[76] and

(2) the arithmetic mean is "*generally preferred to the geometric mean when estimating a forward-looking risk premium*" because it "*captures the rate of return on the marginal unit of capital, which is what is relevant for regulatory price controls*".[77]

3.18 **2rn and RTÉ agree** that it is appropriate to estimate the ERP based on long run historical evidence assessed by reference to the arithmetic mean. This approach has broad support across academics and practitioners.[78] Regulatory precedent is also important as it reflects how regulators in the past have interpreted market data.

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73 Europe Economics, Report for ComReg, April 2014: page 28.

74 Europe Economics, Report for ComReg, April 2014: pages 29 to 31.

75 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.18.

76 Europe Economics, Report for ComReg, April 2014: page 29.

77 Europe Economics, Report for ComReg, April 2014: page 30.

78 Brealey, Myers and Allen, Principles of Corporate Finance, 9th edition, Brealey, Myers and Allen, 2008, page 176; Ibbotson SBBI, 2010 Valuation Yearbook; Valuation - Measuring and managing the value of companies, 3rd edition, McKinsey (2000).

Parameter value estimation

3.19 Europe Economics and ComReg propose a point estimate of 5.0% for the ERP based on the following arguments:

(1) the ERP used in previous regulatory WACC estimations in Ireland range of 5.0% to 6.0%;[79]

(2) "*in the most recent decisions the ERP was in the lower part of this range*";[80]

(3) "*the DMS estimate of ERP arithmetic mean for Ireland is 4.6%*";[81]

(4) the DMS "*Ireland specific rate is similar to the estimated European wide ERP of 4.8%*";[82]

(5) Europe Economics "*do not believe that the upper bound of the ERP for relevant period would be significantly above*" 5.0%;[83] and

(6) "*an expected improvement in economic conditions*" and "*long-run evidence on the ERP*".[84]

3.20 **2rn and RTÉ agree** that a minimum 5.0% ERP is an appropriate forward looking estimate considering recent regulatory precedent.

Taxation

3.21 ComReg considers two approaches to setting the tax rate:[85]

(1) the statutory tax rate; and

(2) the effective tax rate.

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79 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.16; and Europe Economics, Report for ComReg, April 2014: page 31.

80 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.17.

81 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.17.

82 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.16.

83 Europe Economics, Report for ComReg, April 2014: page 31.

84 Europe Economics, Report for ComReg, April 2014: page 31.

85 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.21.

3.22 ComReg uses the statutory tax rate for the following reasons:

(1) Assuming an efficient capital structure, it would *"be inappropriate to factor in company specific factors such as the availability of losses forward or accelerated capital allowances"*;[86]

(2) consistency with the previous three reviews of Eircom's WACC which used a statutory corporate tax level;[87] and

(3) that the effective tax rate only is commonly used *"when a company has high levels of gearing [...] or in corporate group structures where tax losses in one company are used to offset taxable profits in another"*.[88]

3.23 **2rn and RTÉ agree** that it is appropriate to use the 12.5% statutory tax rate. This ensures simplicity, transparency, and is consistent with the assumption that the cost of capital should apply to a hypothetical efficient broadcaster.

Conclusion on generic WACC parameters

3.24 ComReg consults on the following question in relation to the risk free rate, ERP and taxation assumption used for the estimations of cost of capital:[89]

> *"Q. 2 Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views".*

3.25 As set out in the assessments of each parameter above, **2rn and RTÉ agree** that the methodology taken to determine these parameters is appropriate and that the specific parameter value estimates are appropriate as minimum values.

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86 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.25.

87 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.25.

88 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 4.22.

89 ComReg, Review of Cost of Capital, 11 April 2014: page 32.

4. Broadcasting (Market A and Market B)

Introduction

4.1 In Section 7 of the consultation document, ComReg sets out:

(1) the scope for establishing separate WACC benchmarks for Markets A and B;

(2) proposed approach to gearing;

(3) proposed estimation of asset beta;

(4) proposed estimation of debt beta;

(5) proposed estimation of equity beta;

(6) the proposed cost of equity;

(7) the proposed cost of debt; and

(8) aiming up.

4.2 ComReg consults on the following question:[90]

> *"Q. 5 Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views".*

4.3 The sections on proposed estimation of equity beta and the cost of equity follow logically from the other sections. These two points are therefore not explicitly commented on below. All other points are commented on in turn below.

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[90] ComReg, Review of Cost of Capital, 11 April 2014: page 78.

The WACCs in Market A and Market B

Assessing a single WACC for Market A and Market B

4.4 2rn and RTÉ have been found to have significant market power in the following markets respectively:[91]

(1) wholesale access to national terrestrial broadcast transmission services ("Market A"); and

(2) wholesale access to Digital Terrestrial Television ("DTT") Multiplexing Services ("Market B").

4.5 ComReg proposes to calculate a single WACC applicable to both Market A and Market B on the basis that:[92]

(1) there is no regulatory precedent for estimating separate WACCs in Market A and Market B;

(2) there is a lack of pure play DTT operators; and

(3) the underlying driver of demand and supply variation in Market A and Market B are quite similar.

4.6 **2rn and RTÉ agree** that it is appropriate to assess the company specific components of the WACC and CAPM formulas for 2rn and RTÉ jointly as insufficient data availability prevents meaningful separate assessments.

WACC to reflect costs of efficient operator

4.7 Europe Economics states that 2rn and RTÉ "*do not operate with an aim to return capital to investors*"[93] and that "*RTÉ and 2rn have the full backing of the Irish state and, in general, such backing is likely to lower what would be RTÉ's and 2rn's actual costs of capital*".[94] However, Europe Economics concludes that as "*the purpose of the price control is to mimic the constraints that would be present in a competitive market*" the appropriate benchmark is that of "*an efficient operator without state backing*".[95]

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[91] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.1.

[92] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.8. This aligns with Europe Economics, Report for ComReg, April 2014: pages 1, 6, 52.

[93] Europe Economics, Report for ComReg, April 2014: page 4.

[94] Europe Economics, Report for ComReg, April 2014: page 75.

[95] Europe Economics, Report for ComReg, April 2014: page 75.

4.8 **2rn and RTÉ agree** that, consistent with financial theory,[96] the cost of capital should reflect the risks associated with supplying the regulated product in question.[97] 2rn and RTÉ note that 2rn and RTÉ operate as stand-alone entities and that the issue of the extent of any implicit government support has not been assessed by ComReg and Europe Economics.

The viability of DTT services

4.9 Europe Economics argues that "*that the recent discussion about the lack of a commercially-viable DTT service in Ireland would not affect the cost of capital as such*".[98] Europe Economics adds the following observation:[99]

> *"If falling DTT uptake by consumers of public service DTT broadcasting were to result in 2rn and RTÉ changing to a different distribution platform (e.g. cable, satellite, etc.) for public service broadcasting, then ComReg could respond to a change in the distribution platform by reducing or eliminating the depreciation allowance in the price cap calculations. This would allow 2rn and RTÉ to earn a return on the existing DTT broadcasting assets while the asset values are depreciated to zero at the end of their useful lives. The cost of capital itself would not change, but the remuneration of regulated assets would fall, as the WACC would be applied to an increasing small regulatory asset base".*

4.10 **2rn and RTÉ disagree** with Europe Economics' reasoning. Reducing or eliminating the depreciation allowance in the price cap calculations would only allow 2rn to earn a return on the remaining book value of DTT broadcasting assets. However, this ignores that 2rn will not recover or earn a return on the part of the investment which was written down. It is exactly the risk of such write-downs on stranded assets that needs to be reflected in the cost of capital. The fact that Europe Economics recognises that this risk exists supports that it may be appropriate to make adjustments to reflect this in 2rn's cost of capital. This risk may, for example, be taken into consideration when determining the point estimate for the asset beta.

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[96] See e.g. Principles of Corporate Finance, 9th edition, Brealey, Myers and Allen, 2008, page 239: "*Each project should in principle be evaluated at its own opportunity cost of capital.*"

[97] This is consistent with the European Commission's statement that "*where the State provides finances to a company in circumstances that would not be acceptable to an investor operating under normal market economy conditions, State aid is involved*" OJ C 307, 13.11.1993, p. 3.

[98] Europe Economics, Report for ComReg, April 2014: page 4.

[99] Europe Economics, Report for ComReg, April 2014: page 76.

Proposed approach to gearing

Methodology

4.11 The gearing assumption can be based on the actual gearing of the regulated entity or on a notionally efficient level. ComReg argues for using a notionally efficient level[100] based on the following arguments:[101]

(1) it "*allows flexibility to the company to adopt the most efficient capital structure*";[102]

(2) it "*reduces the degree of regulatory intervention in the financing of the business*";[103]

(3) it "*does not reward the regulated entity for an inefficient capital structure*"; [104]

(4) it "*reflects the inherent uncertainty regarding the future evolution of the company's capital structure*";[105]

(5) that "*ComReg does not have an obligation to ensure financeability*";[106] and

(6) Europe Economics have found that the book values for 2rn/ RTÉ are "*uninformative due to negative values of either equity or debt for each of financial years 2010-2012*".[107]

4.12 ComReg concludes that the "*proposed notional approach to gearing is appropriate in that it incentivises a more efficient capital structure amongst operators*".[108]

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[100] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.15.

[101] Similar arguments are set out in Europe Economics, Report for ComReg, April 2014: page 35.

[102] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.12.

[103] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.12.

[104] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.12.

[105] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.12.

[106] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.14.

[107] Europe Economics, Report for ComReg, April 2014: page 77.

[108] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.15.

4.13 **2rn and RTÉ agree** that the notional approach is a recognised and appropriate methodology for setting the gearing level for a hypothetical efficient entity.[109]

Parameter value estimation

4.14 ComReg proposes a gearing of 25% for Markets A and B based on:

(1) regulatory precedent suggesting a "*gearing level in the broadcasting sector should be within the range of 25% to 55%*";[110]

(2) gearing generally between 20% and 40% for comparator companies identified by Europe Economics;[111]

(3) the observation that "*companies with investment grade credit rating (such as Baa3 by Moody's rating or BBB by S&P's rating) tend to have gearing levels at the lower end of this* [20% to 40%] *range*";[112]

(4) Europe Econimics' observation that "*the gearing of the most appropriate comparators is in the range of 20 to 30 per cent*";[113] and

(5) that "*companies operating in fixed line telecommunications sector indicated the range of 30% to 50%*".[114]

4.15 ComReg concludes that a 25% point estimate "*is lower than notional gearing adopted in previous regulatory decisions in other European countries*" but explains that "*more weight is placed on the observed gearing levels of comparators with investment grade ratings*".[115]

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109 As stated in Valuation - Measuring and Managing the Value of Companies, 5th edition, McKinsey (2010): "*The cost of capital should rely on target weights, rather than current weights, because at any point, a company's current capital structure may not reflect the level expected to prevail over the life of the business. The current capital structure may merely reflect a short-term swing in the company's stock price, a swing that has yet to be rebalanced by management*" (page 266).

110 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.17.

111 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.19.

112 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.19.

113 Europe Economics, Report for ComReg, April 2014: page 79.

114 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.20.

115 ComReg, Review of Cost of Capital, 11 April 2014: page 68.

4.16 **2rn and RTÉ are concerned** that the 25% point estimate is too low considering market comparators and regulatory precedent. ComReg's conclusion appears to rely exclusively on investment grade comparator benchmarks. Europe Economics explains that it has "*a preference for the lower end of this range with a view to financing within an investment grade credit rating*".[116] However, the basis for this preference is never discussed.

4.17 Only American Tower has had a gearing consistently around 20% throughout the period considered by Europe Economics.[117] SBA Communications, EI Towers, and Crown Castle all had gearings exceeding 25% for most of this period, and 30% in significant parts of the period. This suggests a gearing of at least 30%.

4.18 The conclusion that regulatory precedent supports a gearing range of 25% to 55% is based on Sweden and UK broadcasting precedent.[118] However, considering the most recent of this precedent, the range is 30% to 50% for Sweden and 35% for the UK. Again, this suggests a gearing of at least 30%.

4.19 2rn and RTÉ therefore consider that the data relied upon by ComReg and Europe Economics support an efficient gearing of at least 30%.

Proposed estimation of asset beta

Methodology

4.20 2rm and RTÉ are not publicly listed. Europe Economics therefore estimates a beta based on:[119]

(1) regulatory precedent; and

(2) analysis of listed comparator companies.

4.21 The analysis of comparator companies is based on either two or five years of data.[120]

4.22 **2rn and RTÉ agree** that it is an appropriate and common approach to rely on listed comparator companies to assess the relevant beta for unlisted entities such as 2rn and RTÉ. Regulatory precedent is also important as it reflects how regulators in the past have interpreted market data.

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116 Europe Economics, Report for ComReg, April 2014: page 78.

117 Europe Economics, Report for ComReg, April 2014: page 78, Table 8.2.

118 Europe Economics, Report for ComReg, April 2014: page 77, Table 8.1.

119 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.26.

120 Europe Economics, Report for ComReg, April 2014: page 78, Figure 8.2, Figure 8.3, and Table 8.7.

Parameter value estimation

4.23 ComReg proposes an asset beta value of 0.55 for Markets A and B based on:[121]

(1) regulatory precedent suggesting a range of 0.49 to 0.65;[122]

(2) two year asset betas for tower and mast comparators of 0.4 to 0.6;[123]

(3) five year asset betas for tower and mast comparators of 0.6 to 0.8;[124]

(4) betas generally being higher pre-crisis than post-crisis;[125]

(5) that "*it is unlikely that pre-crisis betas would be representative of a DTT broadcaster or multiplex operator now, as DTT technologies are now better understood and more widely used than pre-crisis*";[126] and

(6) two year asset betas for fixed line companies of 0.4 to 0.6.[127]

4.24 Europe Economics assesses that this data suggests a range from 0.4 to 0.6. Considering also the regulatory precedent and five year betas, Europe Economics recommends beta of 0.55 "*in the upper part of this range*".[128] ComReg concludes that "*the point estimate of 0.55 for the asset beta of a Hypothetical Efficient Broadcaster is appropriate*".[129]

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[121] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.32.

[122] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.29.

[123] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.29.

[124] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.29.

[125] Europe Economics, Report for ComReg, April 2014: pages 82 and 83.

[126] Europe Economics, Report for ComReg, April 2014: page 82.

[127] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.29. Europe Economics, Report for ComReg, April 2014: pages 75 and 66.

[128] Europe Economics, Report for ComReg, April 2014: page 84.

[129] ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.31.

4.25 **2rn and RTÉ are concerned** that the 0.55 point estimate is too low considering market comparators and regulatory precedent. The 0.55 proposed asset beta is in the high end of the range considered by ComReg. However, this range appears low considering the data that ComReg and Europe Economics present but do not rely upon:

(1) two year betas for tower and mast companies were generally in the 0.6 to 0.8 range before the crisis;[130]

(2) Europe Economics finds that five year betas for tower and mast companies are generally in the 0.6 to 0.8 range;[131]

(3) All but one instance of regulatory precedent (Sweden 2007) considered by Europe Economics suggests asset betas above 0.6;[132]

(4) Europe Economics identifies an asset beta range from 0.49 to 0.54 for Sweden in 2007. However, no other source quoted by Europe Economics or Comreg supports an estimate this low. Moreover, later Swedish precedent suggests a beta of 0.62;[133]

(5) Pre-crisis, the five year betas considered by Europe Economics generally exceeded 0.8;[134]

(6) Europe Economics does not substantiate its statement that "*it is unlikely that pre-crisis betas would be representative of a DTT broadcaster or multiplex operator now, as DTT technologies are now better understood and more widely used than pre-crisis*";[135] and

(7) the risk of stranded DTT assets may not be sufficiently addressed through the beta benchmarks.[136]

4.26 2rn and RTÉ therefore consider that the data relied upon by ComReg and Europe Economics support an asset beta of at least 0.6.

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130 ComReg, Review of Cost of Capital, 11 April 2014: Figure 7. Europe Economics, Report for ComReg, April 2014: Figure 8.2.

131 Europe Economics, Report for ComReg, April 2014: page 83.

132 Europe Economics, Report for ComReg, April 2014: Table 8.6.

133 Europe Economics, Report for ComReg, April 2014: Table 8.6.

134 Europe Economics, Report for ComReg, April 2014: Figure 8.3.

135 Europe Economics, Report for ComReg, April 2014: Page 82.

136 See discussion in paragraph 4.10 and 4.10.

Proposed estimation of debt beta

4.27 ComReg has not included a debt beta in their assessment of the regulatory WACC (i.e. debt beta equal to zero).[137] ComReg presents the following arguments for its approach:

(1) *"In general, Irish regulators have chosen not to include a debt beta in their assessment of the regulatory WACC"*;[138]

(2) *"difficulties of producing reliable estimates of debt beta"*;[139] and

(3) *"the inclusion of debt beta does not make a material difference to the cost of capital"*;[140]

4.28 **2rn and RTÉ agree** that it is appropriate to assume a debt beta of zero. 2rn and RTÉ are not aware of any regulatory precedent based on non-zero debt betas.

Proposed cost of debt

Methodology

4.29 As for the cost of equity, ComReg's approach considers the cost of debt of a hypothetical entrant rather than the regulated entity.[141] ComReg assesses the cost of debt on a bottom-up basis considering:

(1) the nominal risk free rate;[142]

(2) a Broadcasting Debt Premium reflecting that "*broadcasting sector debt requires a higher compensation than German bonds as the corporate debt issued by companies operating in this sector is deemed to be riskier than German Government Bonds*";[143] and

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137 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.33.

138 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.33.

139 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.34.

140 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.34.

141 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.41. This is consistent with Europe Economics, Report for ComReg, April 2014: page 38.

142 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.43.

143 ComReg, Review of Cost of Capital, 11 April 2014: page paragraph 7.44.

(3) an Irish Debt Issuance Premium reflecting that corporate "*Irish bonds of a given credit rating carry a premium over German bonds of the same rating, either because of higher perceived debt beta or higher risk of default*".[144]

4.30 **2rn and RTÉ agree** that this is an appropriate approach to establishing the cost of debt for a hypothetical entrant. The Broadcasting Debt Premium and the Irish Debt Issuance Premium are directly observable features of debt markets. 2rn and RTÉ therefore consider that there is strong factual support for the approach proposed by ComReg.

Parameter value estimation

4.31 The nominal risk free rate estimate of 4.09% is discussed in paragraphs 3.4 to 3.14 above.[145]

4.32 ComReg estimates a Broadcasting Debt Premium of 1.5% based on:

(1) regulatory precedent supporting debt premium in a range from 1.0% to 1.75%;[146] and

(2) investment grade debt issued by tower and mast companies generally attracting a premium of 1% to 2%.[147]

4.33 ComReg concludes that "*various sources of information indicate that the relevant range for broadcasting debt premium is 1% to 2% with a point estimate of 1.5%*".[148]

4.34 **2rn and RTÉ agree** that a Broadcasting Debt Premium of 1.5% is an appropriate estimate. 2rn and RTÉ note that for the two European comparators considered by Europe Economics, the debt premiums are higher than the 1.5% point estimate for (i.e. only the two American comparators have premiums below 1.5%).[149] On the other hand, European regulatory precedent presented by Europe Economics suggest mid-point estimates at (Sweden) or below (UK) 1.5%.

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144 ComReg, Review of Cost of Capital, 11 April 2014: page paragraph 7.44.

145 (1+2.3%) * (1+1.75%) – 1 = 4.09%.

146 ComReg, Review of Cost of Capital, 11 April 2014: page 73.

147 ComReg, Review of Cost of Capital, 11 April 2014: page 74.

148 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.48.

149 Europe Economics, Report for ComReg, April 2014: Table 8.5.

4.35 ComReg estimates a Irish Debt Issuance Premium of 0.25% based on:

(1) Irish utilities' borrowing costs being "*at most approximately 0.75 percentage points higher than borrowing costs of a similar French or German company*"[150] and

(2) that "*factoring into account that the Irish economy is improving and a more normal growth path is in sight, Europe Economics opt for a point estimate of 0.25*".[151]

4.36 On this basis, ComReg estimates a nominal pre-tax cost of debt of 5.84% (4.09% + 1.5% + 0.25%).[152]

4.37 **2rn and RTÉ agree** that an Irish Debt Issuance Premium of 0.25% is in the range of likely future outcomes considering the expected improvements in the Irish economy also reflected in the assessment of the real risk free rate. 2rn and RTÉ note that the 0.25% point estimate is less than the spread of 1.393 percentage point yield difference between 10 year Irish and German government bonds.[153] This suggests that the 0.25% estimate is a relatively low estimate.

Aiming up

Methodology

4.38 ComReg proposes to "aim-up" the WACC.[154] As explained by Europe Economics, aiming up addresses that "*the adverse consequences of setting the cost of capital too low or* [sic] *worse than those of setting the cost of capital too high*".[155] This is consistent with the approach taken by other regulators.[156]

150 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.50.

151 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.51.

152 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.52.

153 Assessed as at 10 April 2014. Source: Bloomberg.

154 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.54.

155 Europe Economics, Report for ComReg, April 2014: page 2.

156 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.54.

4.39 Europe Economics aims up the following parameters:

(1) the nominal risk free rate;

(2) the asset beta; and

(3) the debt premium.

4.40 ComReg does not aim up the tax rate and notional gearing on the basis that these are not uncertain.[157] The ERP is not aimed up:[158]

(1) as the "*ERP can be expected to move in the opposite direction to the risk free rate so that total market returns are more stable than their components*"; and

(2) due to "*the difficulties in determining uncertainty over the ERP*".

4.41 **2rn and RTÉ agree** that aiming up reduces the risks of a too low WACC estimate deterring investments. 2rn and RTÉ also agree that this can be achieved by aiming up the nominal risk free rate, the asset beta, and the debt premium.

Parameter value estimation

4.42 For the nominal risk free rate and the asset beta, Europe Economics aims up by one standard deviation (equivalent to the 66th percentile). The debt premium is aimed up "*using Europe Economics judgement on the variance as a proxy for one standard deviation above the mean*".[159]

4.43 Table 4-1 below, summarises the pre and post aimed up values for three affected parameters.

Table 4-1 Pre and post aimed up values for parameters

Parameter	Pre aiming up	Post aiming up
Nominal risk free rate	4.09%	4.19%
Asset beta	0.50	0.57
Debt premium	1.75%	2.05%

Source: ComReg, Review of Cost of Capital, 11 April 2014: Table 16.

157 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.55.

158 ComReg, Review of Cost of Capital, 11 April 2014: paragraph 7.56.

159 ComReg, Review of Cost of Capital, 11 April 2014: footnote 18.

4.44 Aiming up increases the nominal pre-tax WACC from 8.11% to 8.68% for broadcasting Market A and Market B.[160] Table 16 in the consultation document (replicated in Table 4-1 above) suggests that the aim up takes the asset beta from 0.5 to 0.57. However, ComReg has estimated a pre aim up asset beta of 0.55.[161] Considering the 0.07 aim up suggested by Europe Economics, the aimed up value should be 0.62. Replicating Europe Economics' calculations suggests that the aimed up WACC of 8.68% is based on an asset beta of 0.62.

4.45 **2rn and RTÉ are concerned that** ComReg, at the advice of Europe Economics, aims up by less than suggested by the precedent quoted by Europe Economics (95th percentile for the UK Competition Commission and 75th to 80th for more recent regulatory judgments).[162] Europe Economics explains that "*if the assumptions made are more forward-looking, anticipating that by the middle of the price control period market conditions should have stabilised, with generally higher returns, then something closer to a one standard deviation aiming up might be sufficient*".[163] However, ComReg and Europe Economics do not assess the impact of their assumption and the corresponding implications for the appropriateness of aiming up by less than suggested by precedent.

Conclusion on Broadcasting (Market A and Market B)

4.46 ComReg consults on the following question in relation to the aggregation of Markets A and B for the estimation of the cost of capital, gearing, asset beta, debt beta, cost of debt and aiming up assumptions:[164]

> *"Q. 5 Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views".*

4.47 **2rn and RTÉ agree** that the methodologies used to estimate the parameters specific to Market A and Market B are appropriate.

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160 ComReg, Review of Cost of Capital, 11 April 2014: paragraphs 7.59 and 7.60.

161 As discussed in paragraph 4.24 above.

162 Europe Economics, Report for ComReg, April 2014: page 42.

163 Europe Economics, Report for ComReg, April 2014: page 42.

164 ComReg, Review of Cost of Capital, 11 April 2014: page 78.

4.48 **2rn and RTÉ are concerned** that the parameter estimations for gearing and asset beta, and aiming up are low relative to the ranges supported by the data relied upon by ComReg and Europe Economics.

4.49 **2rn and RTÉ disagree** that the risk of stranded DTT assets is adequately addressed and consider that this further supports considering an asset beta above the 0.55 proposed by ComReg.

5. Overall assessment

5.1 2rn and RTÉ agree with ComReg's approach to estimating the cost of capital using the CAPM and WACC framework. 2rn and RTÉ also generally agree with the approach taken by ComReg and Europe Economics to estimating the parameters in the WACC and CAPM calculations. However, 2rn and RTÉ consider that:

(1) data supports an efficient gearing of at least 30% rather than 25%;

(2) data supports an asset beta of at least 0.60 rather than 0.55;

(3) ComReg's arguments for including a 0.25% Irish Debt Issuance Premium justify including a similar premium in the cost of equity; and

(4) economic theory and regulatory precedent supports the inclusion of a 1% small company premium on the cost of equity to reflect the lack of liquidity in 2rn and RTÉ equity shares.

5.2 The proposed alternative parameter assumptions listed in points 1 and 2 above may appear insignificant. However, considered together, these changes in assumptions are non-trivial. Table 5-1 sets out the calculation of the WACC proposed by ComReg before aiming up, including points 1 and 2 in the list above, further including points 3 and 4 in the list above, and after aiming up the adjusted WACC.

Table 5-1 Cost of capital calculation including potential adjustments

	ComReg proposal	Adjust beta and gearing assumptions		Include additional equity premiums			
	Pre aim up	Change	Pre aim up (2)	Change	Pre aim up (3)	Aim up	Post aim up
Real risk free rate	2.30%		2.30%		2.30%	+0.10%	2.40%
Inflation	1.75%		1.75%		1.75%		1.75%
Nominal risk free rate	4.09%		4.09%		4.09%		4.19%
Debt risk premium	1.50%		1.50%		1.50%	+0.30%	1.80%
Irish debt issuance premium	0.25%		0.25%		0.25%		0.25%
Cost of debt	5.84%		5.84%		5.84%		6.24%
Equity risk premium	5.00%		5.00%		5.00%		5.00%
Asset beta	0.55	+0.05	0.6		0.6	+0.07	0.67
Gearing	25%	+5%	30%		30%		30%
Equity beta	0.73		0.86		0.86		0.96
Tax rate	12.5%		12.5%		12.5%		12.5%
Small company premium	0.0%		0.0%	+1%	1.0%		1.0%
Irish equity issuance premium	0.0%		0.0%	+0.25%	0.25%		0.25%
Cost of equity (pre-tax)	8.87%		9.57%		11.00%		11.69%
WACC – pre-tax	8.11%		8.45%		9.45%		10.05%

Source: calculations based on data disclosed in ComReg, Review of Cost of Capital, 11 April 2014.

5.3 Considering the minor asset beta and gearing adjustments explained above, the proposed pre-tax WACC increases from the pre aim up 8.11% proposed by ComReg to 8.45%. Taking into consideration also a small company premium and an Irish equity issuance premium, the pre-tax WACC increases to 9.45%. As set out above, 2rn and RTÉ consider that such additional adjustments to ComReg's proposal are justified. Including the aiming up adjustment, the pre-tax WACC increases to 10%.[165]

[165] 2rn and RTÉ note that the adjustments set out above relate to the assessment of the most appropriate central estimate for the cost of capital. It therefore remains appropriate to aim up the cost of capital estimate also after these adjustments for the reasons referred in paragraph 4.38.

6. Draft decision instruments

6.1 In Annex 3 and Annex 4 of the consultation document ComReg publishes draft decision instruments for each of Market A and Market B.

6.2 In relation to these draft decision instruments ComReg invites a response to the following questions.

> *"Q. 9 Do you believe that the draft text of the proposed decision instrument for Broadcasting - Market A is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required".*

> *"Q. 10 Do you believe that the draft text of the proposed decision instrument for Broadcasting – Market B is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required".*

6.3 Paragraph 4.1 of each respective draft decision instrument states that

> *"4.1. A nominal pre-tax WACC of XX% will be used as a basis for allowing 2rn /RTÉ a reasonable rate of return in the context of obligations imposed on 2rn/RTÉ in the Market relating to accounting separation, cost recovery and price controls (pursuant to Regulations 11 and 13 of the Access Regulations in accordance with Regulations 8 and 18 of the Access Regulations), including the setting of regulated wholesale prices".*

6.4 **2rn and RTÉ** believe that the nominal pre tax WACC, once established should form **the** basis for allowing a reasonable return and that any potential ambiguity or potential for misinterpretation of this paragraph of the decision instruments should be avoided by referring to **the basis** rather than **a basis**.

9 TV3 Television Network Limited

TV3 Group Submission to ComReg Consultation and Draft Decision 14/28

1. **Response to Consultation and Draft Decision 14/28**

ComReg has published a Consultation and Draft Decision 14/28 ("Draft Decision") on the cost of capital element of prices in certain regulated markets. TV3 wishes to respond to the draft findings relating to the broadcasting sector.

2. **Scope of submissions**

ComReg has relied on the findings of the Europe Economics Technical Report ("EE Report") in the Draft Decision. ComReg has not deviated in any material way from the findings of the EE Report and TV3 will assume therefore that each of the assumptions or assertions not expressly adopted by ComReg are implicitly adopted.

3. **Summary of viewpoint**

At the outset, it is worth noting ComReg's current position in relation to the applicable broadcasting transmission tariffs of 2rn and RTÉ. ComReg Information Notice 14/15 states that *"ComReg does not see any reason to intervene at this stage, subject to the completion of its review of the WACC.......Once the WACC review is completed and should ComReg consider that tariffs require adjustment on foot of this review or* ***of any new information*** (emphasis added) *that has come to light in the meantime, 2RN/ RTÉ will be required to adjust its tariffs effective 1 April 2014".*

In light of this statement, TV3 Group would underline the need for ComReg to consider the new information contained in the recently completed NewERA report on the scope for further cost efficiencies in RTÉ, which has been submitted to the Minister for Communications, Energy and Natural Resources for his consideration, pursant to the Government Response to Section 124 (5 Year) Funding Review of PSBs of 17th July 2013.

The recommendations contained in this report should be material to ComReg's deliberations on potential future tariff adjustments, as to date, RTÉ has failed to produce a fair, transparent, regulated broadcasting transmission tariff in Ireland.

This has been acknowledged by Deloitte in their report to ComReg[1] with the opening confirmation that *"the scope of our work has been limited by the time, information and explanations made available to us."* The report warned that RTÉ's tariff model could lead to perverse outcomes such as charges increasing for TV3 Group if RTÉ opened a new channel, which is precisely what happened with the launch of RTÉ1 HD.

Critically, the Deloitte report also states that the report's review *"did not include an assessment of the efficiency of the costs (including network investment) incurred by RTÉNL....that would commonly be included in regulatory cost models".* This alarming omission should have been an immediate cause for regulatory concern and should have resulted in the initiation of a full regulatory review of the tariff model in light of the suite of *ex ante* powers, then so recently granted by the European Commission, under ComReg Decision 13/71, at ComReg's **own** request.

Instead, ComReg has presided over a regulatory framework where the operator of a State-owned vertically integrated monopoly network, determines the applicable

[1] Deloitte (2013) *"Review of RTÉNL's network cost model and RTÉ's MUX tariff model", 16th September 2013.*

broadcasting transmission tariff, absent inclusion of the basic elements that would commonly be included in such reviews and instead simply states *"that the tariffs of 2RN and RTÉ are to be applied"* (Para. 7.3 Page 65 of the Draft Decision). This is a remarkable decision, given the clear evidence of market failure, including but not limited to, the failure to successfully launch a commercial DTT multiplex by three different commercial consortia in Ireland and the impact of the exorbitant tariffs charged for DTT access[2], even for those legislatively mandated to establish a DTT channel, e.g. the Oireachtas channel.

Furthermore, RTÉ was granted the right to launch five new channels in 2011 (by Ministerial Order at the point of Government transition). Yet almost none of the conditions of the Ministerial Order have been met by RTÉ (indeed one of the aforementioned channels was required to cease broadcasting in February 2014 but it continues to collect advertising revenue at the expense of the market, to this day). Nor is there oversight of RTÉ's expenditure, which was also capped by the Ministerial Order. It is noteworthy that the only entity to expand its services on the DTT platform is RTÉ itself.

For the aforementioned reasons, TV3 firmly rejects ComReg's proposal *"that the WACC estimate should be "aimed up" to reflect the asymmetry of consequences between those of setting the cost of capital too low and those of setting it too high"* (Para. 7.54 Page 75 of the Draft Decision). On the contrary, the greater public good would be served from significantly lower DTT transmission tariffs, thus encouraging new entrants resulting in an improved service offering for Irish citizens.

In considering the Draft Decision, TV3 Group considers it necessary to clearly identify new and other relevant information that should be material to ComReg's current deliberations on the WACC for broadcasting transmission and the overall weakness of regulatory oversight on this issue to date.

It is TV3's submission that ComReg's proposed approach to estimating the WACC for both Market A and Market B in the broadcasting sector is fundamentally flawed, specifically in terms of the very purpose of the price control and the treatment of RTÉ as a State-owned entity.

The price control is required to be cost oriented. However, the methodology applied in the EE Report and in the Draft Decision result in RTÉ (which is legally mandated to provide the network and is subsidised to do so by way of the licence fee) recovering more than its costs of capital. No account is taken of the relevance of RTÉ's position as a State-owned entity. The comparators used to determine relevant parameters are not appropriate. This distorts the reality of the costs incurred by RTÉ and results in a regulatory WACC which bears no connection with actual costs of capital or the fact that RTÉ receives in excess of €100m annually in licence fee revenue.

More specifically, the basis for TV3's position is that the Draft Decision takes no account of the fact that the RTÉ Group projects are funded by licence fee revenues, retained earnings and advertising revenue. RTÉ Group is not charged an equity premium or a debt premium and is not exposed to any equity beta or other element of cost of equity capital. The resulting effective cost of capital for RTÉ Group is non-existent. Given its statutory status and ownership structure[3], RTÉ does not require to

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[2] Indeed in a recent report, the BAI confirmed its view that the market conditions for launching commercial DTT services have not improved and remain very challenging since the last unsuccessful licensing process was undertaken in 2008. See http://www.bai.ie/wordpress/wp-content/uploads/20131204_OOCommDTTRpt_v.Final_MT.pdf

[3] In particular, in RTÉ's Strategy Document 2012-2017, it states "RTÉ is a not-for-profit organisation; all of its funding is reinvested in its activities." http://static.rasset.ie/documents/about/rte-strategic-plan-short-version-f2013.pdf

be compensated for opportunity cost of its capital. At the very least, RTÉ should not be compensated at the levels outlined in the Draft Decision.

With regard to the use of the "Hypothetical Efficient Broadcaster" model in the Draft Decision, it is TV3's view that while this model is appropriate for determining RTÉ's efficient operating and capital expenditure costs, it is not appropriate when determining RTÉ 's cost of capital. RTÉ is a dominant State-owned company, mandated in law (Section 26 of the Broadcasting Act 2009), to establish, maintain and operate a broadcasting transmission network, (with supporting licence fee revenue), bearing at most a sovereign cost of capital (or similar).

Finally, the Draft Decision runs contrary to the current trend in the UK where the determined WACC across a range of sectors is progressively falling[4] and today sits firmly within the range of 4.10%-5.70%. Indeed on foot of the recent price determination by the UK Competition & Markets Authority on the Northern Ireland Electricity Case (15th April 2014)[5], which dramatically reduced NIE's WACC to 4.10% for the forthcoming price control period October 2014 to September 2017, Ofwat has defended its recently proposed 3.85% vanilla WACC, the first sub-4% figure proposed by any utility regulator[6]. This stands in stark contrast to the 8.68% rate proposed by ComReg for both Market A and B in the Draft Decision, for a State-owned broadcaster which largely thrives on costless revenues from the television licence fee.

4. Response to Question 1 - The WACC methodology and underlying assumptions[7]

The EE Report follows the standard WACC/CAPM model in determining the cost of capital, "*by assessing the cost of debt and equity, and gearing determines the appropriate weighting between the two.*" However, the WACC review is based on important assumptions that TV3 considers flawed and unsustainable.

4.1 The first assumption relates to the purpose of the price control.

"*One of the purposes of a price control is [...] to set the rate of return at the cost of capital that would occur in a competitive market.*"[8]

TV3 considers this assertion wrong and wholly inconsistent with the governing regulatory framework. Specifically, it is not consistent with Comreg Decision 11/13 on Broadcasting Transmission Services. While ComReg stated that price control "*...has the aim of fostering a competitive market dynamic, through efficient access,*"[9] it is also clear that "*all costs (both capital and operating) should be adjusted to reflect efficiently incurred costs.*"[10] In its 2013 Decision, ComReg specifically imposed a cost oriented approach to price control[11]. This is not the same as replicating the cost of capital that

[4] See Figure 8.4 Page 92 http://www.caa.co.uk/docs/33/CAP1115.pdf

[5] https://www.gov.uk/cma-cases/northern-ireland-electricity-price-determination

[6] http://www.ofwat.gov.uk/pricereview/pr14/pr14publications/prs_web20140127riskrewardtransc.pdf

[7] Question 1: Do you agree that the CAPM-based WACC methodology continues to be the most appropriate basis for separately estimating the cost of capital to be used in price controls for (i) wholesale mobile call termination, (ii) fixed line telecommunications and (iii) broadcasting services? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

[8] EE Report, page 7, section 3.1.

[9] Submission re Market Review: Broadcasting Transmission Services in Ireland, ComReg 12/77, page 15

[10] Market Review: Broadcasting Transmission Services in Ireland, ComReg 13/71

"ComReg is mindful that an effective SMP price control should allow an appropriate rate of return on capital employed and ensure that only efficiently incurred costs are recovered." Page 151

"all costs (both capital and operating) should be adjusted to reflect efficiently incurred costs." Page 151

"ComReg has proposed imposing requirements that access is cost oriented" page 321

[11] Market Review: Broadcasting Transmission Services in Ireland, ComReg 13/71, page 16.

would occur in a competitive market, particularly when the service is subsidised with licence fee revenue.

4.2 The second assumption relates to the treatment of RTÉ as a state-owned entity.

"We note that RTÉ and 2rn have the full backing of the Irish state and, in general, such backing is likely to lower what would be RTÉ's and 2rn's actual costs of capital. However, we retain our approach of estimating the appropriate cost of capital for an efficient operator without state backing. This is because the purpose of the price control is to mimic the constraints that would be present in a competitive market. A hypothetical efficient operator in a competitive market would not have state backing, so the fact that RTÉ and 2rn have such backing is irrelevant to the level at which their return should be capped. We therefore proceed to estimate the cost of capital of a hypothetical efficient broadcast operator without state backing."[12]

The EE Report acknowledges that RTÉ's cost of capital is evidently lower than a competitive market cost of capital. RTÉ's state backing affords it a lower debt premium, no equity risk premium and costless revenues from licence fees. In fact, in 2012 RTÉ received over 53% of its revenue from television licence fees[13]. This capital has no cost and its purpose is to ensure the provision of a functioning broadasting transmission network, with the widest possible range of channel choice for Irish citizens. It is not appropriate to ignore the effect of state backing on RTÉ's cost of capital.

Applying these assumptions has the effect of completely distorting the reality of the costs incurred and will ultimately result in RTÉ recovering a rate of return which bears no connection with its actual costs of capital. It is therefore not appropriate to ignore the effect of state ownership and allow RTÉ to recover costs of capital which are evidently higher and less efficiently incurred than its actual costs of capital.

It gives rise to the unfair result that RTÉ is, in TV3's estimation, allowed on the one hand to take into account the inefficiencies it faces as a state-owned monopoly infrastructure provider for purposes of calculating its cost orientation obligation, while on the other hand enjoying the benefit of taking account of costs it does not actually face for purpose of the WACC review.

5. Response to Question 2 - Generic parameters for risk-free rate and equity risk premium[14]

5.1 Equity risk premium (Draft Decision paragraphs 4.14-4.18)

RTÉ Group is owned by the State and is a non-profit making organisation. It does not raise equity capital and is not required to pay dividends. An equity premium reflects the premium demanded by investors for the risk associated with holding equity in a company. RTÉ raises its capital through retention of profits earned largely from television licence fees. The state does not demand any premium from RTÉ. There is no basis for inclusion of an equity premium in the cost of capital for RTÉ.

The inclusion of an equity premium as compensation for the opportunity cost of capital would also be contrary to RTÉ's real costs of capital. Unused capital is

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[12] E Report, page 75, section 8.1.

[13] RTÉ Annual Report & Group Financial Statements 2012, page 12.

[14] Question 2: Do you agree with ComReg's proposed approach to estimating the generic parameters for the respective costs of capital and the preliminary point estimates chosen? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

retained by RTÉ for use in its non-profit making activities. The effect of allowing an equity risk premium is that TV3 will be required to compensate RTÉ for an opportunity cost RTÉ did not incur.

Should ComReg insist on including an equity risk premium, TV3 argues that basing it on average Irish market data, as the EE Report does, is inappropriate given that RTÉ does not reflect the risk profile of average Irish companies.

6. Response to Question 5 – Specific broadcasting sector approach[15]

6.1 Equity beta (draft review paragraphs 7.24-7.32, 7.37-7.40)

An equity beta reflects the sensitivity of a company or project to fluctuation in the equity markets. RTÉ Group is owned by the State[16]. RTÉ's state-backing shields it from equity market fluctuations. The decision to use competitive market costs of capital rather RTÉ's actual costs of capital, therefore, again leads to unrealistic and distorted outcomes. The effect of this, in tandem with the use of an equity risk premium, is to allow RTÉ to pass costs to TV3 that it has not and will never incur.

Simply put, an equity beta should not apply as RTÉ is State-owned.

6.2 Gearing (draft review paragraphs 7.11-7.23)

Gearing reflects the amount of a project that is financed by debt, rather than equity. ComReg chose not to use RTÉ's actual gearing for two reasons. One is that ComReg is concerned about the effect this could have on the ability of RTÉ to finance the broadcasting operations. The second is that the actual gearing was uninformative.

The first reason may be of concern where the undertaking with significant market power is privately owned and required to be funded by debt and equity capital. However, RTÉ is state-owned. It is not exposed to financing problems as the State provides finance required through licence fees which can be increased as necessary.

The second reason is unfortunately redacted. However, it seems to reflect the rationale in the EE Report for using notional gearing. This was because debt and/or equity had negative values for RTÉ in the financial years 2010-2012[17]. This suggests that RTÉ has large cash reserves from which to fund this investment and shows that it does not operate in a way resembling a competitive market operator. It is further evidence that the use of a hypothetical operator in a competitive market to estimate the WACC is not appropriate.

Moreover, as pointed out by ComReg, hypothetical operators are not always employed in calculation of these parameters. Ofcom used Vodafone's actual gearing ratio in its own WACC review.

6.3 Debt Premium (draft review paragraphs 7.41-7.53)

Debt premium reflects the amount charged by lenders over and above the nominal risk-free rate for the additional risk of holding a particular company's debt. Any deficit incurred by RTÉ Group is ultimately paid by raising television licence fees. No interest rate is charged to RTÉ Group by the state. RTÉ Group is therefore not required to engage in any borrowing or debt issuance. Therefore, any debt premium

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[15] Question 5: Do you agree with ComReg's proposed approach to estimating the WACC specific to Market A and Market B in the broadcasting sector? Please explain the reasons for your answer, in particular your views on the specific parameters used. Please clearly indicate the relevant paragraph numbers to which your comments refer, along with all factual evidence supporting your views.

[16] And, as in note 1 above, states that it is a not-for-profit organisation.

[17] EE Report, section 8.4.1, page 77.

allowable to RTÉ would reflect an inefficient choice to take on debt. RTÉ is only allowed to recover efficiently incurred costs.

Moreover, the comparators used by Europe Economics reflect companies of a lower credit rating than would be applied by any lender to RTÉ Group to any borrowings by RTÉ Group. This is implicitly accepted in the statement that state *"backing is likely to lower what would be RTÉ's and 2rn's actual costs of capital."* The inappropriateness of the chosen comparator companies is further discussed below.

6.4 "Aiming Up" (draft review paragraphs 7.54.-7.57)

The EE Report and Draft Decision advocate applying a premium or "aiming up" to reflect the asymmetry of consequences of incorrectly estimating the WACC. The draft decision recommends a premium of 7% on top of the vanilla WACC. The EE report stated that where the price control allows a higher WACC than necessary consumers pay a little more, whereas, if it allows a lower WACC than necessary there is less investment and innovation which will mean consumers miss out in the future. However, Irish citizens are already paying for network provision by means of the licence fee. RTÉ's investment and innovation is state-driven and not based on availability of capital in the way it would be for a hypothetical privately owned efficient operator. This is yet further evidence that the use of a hypothetical privately owned efficient operator is inappropriate.

In circumstances where RTÉ Group is funded largely by the television licence fees, the risks of underestimating the WACC are not higher than the costs of an overestimation. Irish citizens enjoy the poorest channel choice of any PSB DTT platform, a reality reinforced by the continued high barrier to entry for third party service providers in terms of the high transmission tariffs charged by RTÉ. TV3 submits that such a barrier to entry is clearly more damaging to the consumer than the risks of underestimating the cost of capital. Therefore, no premium should be applied over and above the vanilla WACC to provide for these risks.

As ComReg rightly states, *"...setting the rate too high would allow the regulated company to earn excessive returns at the expense of its wholesale and retail customers while also potentially distorting pricing signals to investors."* This cannot be allowed, given that the asymmetry of consequences normally associated with inaccurate estimations of the WACC does not apply to Irish broadcasting infrastructure.

6.5 Precedents and Comparators used (EE Report, pages 77-85)

The EE Report uses comparators for broadcasting specific elements of the WACC. Of the two precedents and four comparator companies considered by Europe Economics, five are privately owned companies[18]. These five companies are not good comparators as they are exposed to the relevant equity risk premium, debt premium and risks of underestimating the WACC.

In addition, while the sixth company (Teracom AB) is owned by the Swedish State, it is not funded by the same model as RTÉ Group. By contrast, the EE Report did not use actual RTÉ data for the very reason that RTÉ is state owned and does not seek to return capital to investors[19]. Therefore, these companies do not make good comparators and the resulting data is not reliable in determining the WACC in the Irish broadcasting market.

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[18] Arqiva (privately owned), American Tower Corp (NYSE listed), EI Towers (privately owned), SBA Communications (NASDAQ listed), Crown Castle International Corp (NYSE listed).

[19] EE Report, section 1.6, page 4.

A better comparator would be to look towards best regulatory practice internationally, where the general trend is a progressive fall in determined WACCs. This has most recently been confimed in a report published by the UK Commission for Aviation Regulation (CAA)[20], which compared WACC determinations across a range of cross-sectoral regulators in the UK.

Regulator	Sector	Status	Date of Decision	Appropriate Comparative
Ofgem	Gas Distribution	Determination	2012	4.11%
ORR	Netowrk Rail	Draft Determination	2013	4.22%
Ofgem	Gas Transmission	Determination	2012	4.30%
Ofgem	Electricity Transmission-National Grid	Determination	2012	4.45%
Ofgem	Electricity Distribution	Determination	2009	4.59%
Ofcom	MCT	Determination	2011	4.60%
Ofgem	Electricity Tranmission-Scottish	Determination	2012	4.68%
CAA	HAL	Final Proposals	2013	4.85%
Ofcom	Openreach	View	2013	4.90%
CAA	GAL	Final Proposals	2013	5.10%
Ofwat	WASC	Determination	2010	5.10%
CAA	NERL	Determination	2010	5.54%
Ofcom	Rest of BT (not price controlled)	View	2013	5.70%

Source: CAA (2013) *"Estimating the cost of capital: a technical appendix to the CAA's Final Proposals for economic regulation of Heathrow and Gatwick after April 2014"*, Figure 8.4, page 92.

7. Cost of unnecessary/inefficient capital expenditure

TV3 notes that the draft review includes no exclusion for the cost of unnecessary capital expenditure. It is TV3's view that RTÉ, in providing higher coverage than is required, creating excess bandwidth on the DTT multiplex and incurring other such costs, has incurred expenditure above what is required. No proportion of this expenditure should be chargeable to TV3. Therefore, the cost of raising the capital should also be disregarded by ComReg in its current review.

[20] http://www.caa.co.uk/docs/33/CAP1115.pdf