Targeted consultation on Guidance on cost of capital for EU electronic communications regulators

Fields marked with * are mandatory.

Targeted consultation on Guidance on cost of capital for EU electronic communications regulators

1. Objectives of the consultation

This consultation is part of a Commission initiative aiming to provide guidance to European National Regulatory Authorities (NRAs) for electronic communications on the methodology for calculating the reasonable rate of return in the context of NRAs' regulatory measures.

The EU's Regulatory Framework for electronic communications sets out a series of rules which apply to the electronic communications sector throughout the EU. It encourages competition and efficient investment, improves the functioning of the market and guarantees basic user rights. The overall goal is for European consumers to benefit from increased choice thanks to low prices, high quality and innovative services.

Draft decisions that mandate cost-orientation remedies or a margin-squeeze test include an estimation of the reasonable rate of return allowed on regulated services. This is typically measured through the Weighted Average Cost of Capital (WACC). The Commission services have observed significant discrepancies in NRAs' approaches to estimating the WACC, including in the methodology individual NRAs apply in sequential notifications to the Commission.

The Commission services' preliminary assessment suggests that a common methodology for the calculation of the WACC could be based on four regulatory principles:

1. consistency in the methodology to determine the parameters in the WACC formula;
2. regulatory predictability to limit unexpected variations in the regulatory approach of NRAs' methodology and in the value of the parameters over time;
3. the promotion of efficient investment and innovation in new and enhanced infrastructures, taking account of the risk incurred by the investing undertakings;
4. transparency of the method to determine the reasonable rate of return on their investments, avoiding unnecessary complexity.

Achieving these objectives will contribute to a stable regulatory environment that supports investments in electronic communications networks in the EU to the benefit of consumers. It will discourage the artificial distortion of investments by inconsistencies in NRAs' approaches over time and across the EU, which could harm the functioning of the Digital Single Market (DSM). The DSM is a strategy of the European Commission to ensure access to online activities for individuals and businesses under conditions of fair competition, consumer and data protection, removing geo-blocking and copyright issues. A DSM is one in which the free movement of persons, services and capital is ensured and where the individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition and a high level of consumer and personal data protection, irrespective of their nationality or place of residence.

Enhanced scrutiny of the determination of the WACC would help implement the current Regulatory Framework, while being compatible with the objectives of the proposed European Electronic Communications Code (EECC). The Commission guidance will also be relevant to the implementation of the Code once it will enter into force.

A background document describing the Commission services' working assumptions for determining the WACC in regulatory proceedings in the electronic communications sector accompanies this consultation questionnaire and can be found here.

2. Personal data

Contributions will be published on the website of the Directorate General for Communications Networks, Content and Technology - unless confidentiality is specifically requested.

To this end we would kindly ask you to clearly indicate in the general information section of this questionnaire if you would not like your response to be publicly available. In case your response includes confidential data please also provide a non-confidential version of your response, which will then be published on the relevant website.

Please read the Privacy Statement on how we deal with your personal data and contribution.

Note that, whatever option chosen, your answers may be subject to a request for public access to documents under Regulation

(EC) N°1049/2001

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3. Replying to the consultation

All questions are optional. You can also pause at any time and continue later. Once you have submitted your answers, you can download a copy of your contribution.

The following acronyms are used in the questionnaire:

- WACC: Weighted Average Cost of Capital
- CAPM: Capital Asset Pricing Model
- RFR: Risk-Free Rate
- ERP: Equity Risk Premium
- SMP: Significant Market Power

Outline of the consultation:

- Questions 1-5: General information
- Questions 6-11: General approach to assess the most appropriate methodology to estimate the WACC
- Questions 12-31: Estimation of the WACC parameters
- Questions 32-33: Distinction between electronic communications services
- Questions 34-35: Transitional period

Although all types of respondents are welcome to participate in this consultation, given the highly technical nature of the topic, most questions require expert knowledge of the WACC and its calculation.

4. General information

*__Question 1:__
Please provide us with your personal details.

Respondent's first name:

*Respondent's last name:

*Name of the organisation:

BEREC

*Respondent's professional email address:

***Question** **2**:
You answer as:

- [ ] [ ] Private individual
- [ ] [ ] Consumer association or user association
- [ ] [ ] Business (please specify sector)
- [ ] [ ] Fixed network operator
- [ ] [ ] Mobile Network Operator (MNO)
- [ ] [ ] Mobile Virtual Network Operator (MVNO)
- [ ] [ ] Convergent operator
- [ ] [ ] Internet content provider
- [ ] [ ] Government authority
- [ ] [ ] National Regulatory Authority
- [ ] [x] Other public bodies and institutions (please specify)
- [ ] [ ] Other (please specify)

*__Question 3:__ What is your country of residence? (In case of legal entities, please select the primary place of establishment)

- Austria
- Belgium
- Bulgaria
- Czech Republic
- Croatia
- Cyprus
- Denmark
- Estonia
- France
- Finland
- Germany
- Greece
- Hungary
- Italy
- Ireland
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands

- Poland
- Portugal
- Romania
- Spain
- Slovenia
- Slovakia
- Sweden
- United Kingdom
- Other

*****Question 5:**
Is your organisation registered in the Transparency Register of the European Commission and the European Parliament?

- Yes
- No
- Not Applicable

If your organisation is not registered in the Transparency Register, please do so before answering this questionnaire. If your organisation responds without being registered, the Commission will consider its input as that of an individual.

5. Consultation questions

5.1. General approach to assess the most appropriate methodology to estimate the WACC

Question 6:
In your view, do differences in the methodologies used by NRAs to estimate the WACC explain the differences in the current WACC levels estimated by NRAs?

Yes, very much

Yes, to some extent

Only a little

Not at all

I don't know

Please explain your response.

BEREC recognizes that the WACC levels estimated by NRAs are different (see BoR (17) 169). However, BEREC does not consider that these differences lead to investment distortion.

Parameters in the WACC formula, in fact, can be estimated according to different theoretical approaches[1]. Besides theory, NRAs when estimating parameters in the WACC formula take into account elements such as national economic conditions, availability of data, the degree of wholesale and retail competition, regulatory goals/strategy etc.

As the 2017 Regulatory Accounting in Practice Report (BoR (17) 169) data already showed that main differences in final WACC values were mainly explained with respect to parameters in the WACC calculation that are "country specific" - and not "sector specific" – such as the Risk Free Rate (RFR), Equity Risk Premium (ERP) and Tax, with a less relevant role for parameters such as beta, gearing and debt premium. The 2018 survey observes for the first time that differences affecting estimation of parameters by NRAs for the WACC applied to fixed and mobile markets are negligible, thus reinforcing the idea of internal consistency. (para. 26 – 28 BEREC Position Paper, hereafter BPP)

BEREC is of the view that the general principles framework is sufficient for the further convergence of WACC calculations and thus thinks that, in general, the level of details proposed by the Commission is not needed and should be reduced. (para. 7 – 8 BPP)

[1] For some parameters "*there is no single figure that theory says is correct*" (E. Dimson, P. Marsh, M. Staunton, "The worldwide Equity premium: a smaller puzzle", 2006).

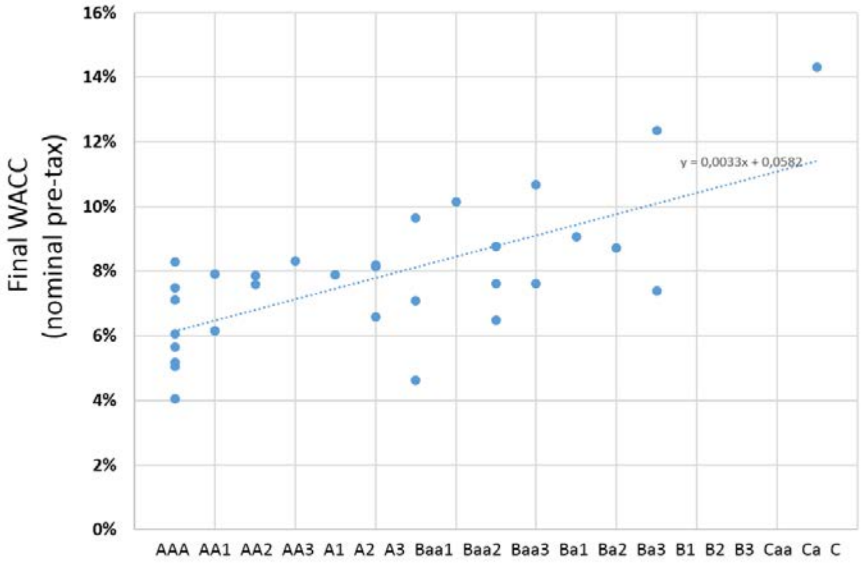
Question 7:
In your view, do differences in the national economic and financial conditions in every Member State explain the differences in the current WACC levels estimated by NRAs?

- Yes, very much
- Yes, to some extent
- Only a little
- Not at all
- I don't know

Please explain your response.

The analysis of the impact of each parameter on the currently-in-force WACC values reported in BoR (17) 169 has shown that WACC differences are mainly explained by parameters that are influenced by country/market situation. The exercise regressed (in terms of causal inference) the historical and currently in force values for single parameters on the final WACC values. As a result, most of the variability in WACC values is due to the RFR estimation and, to a far lesser extent, to ERP (result is confirmed also by considering new data collected for 2018, where 14 NRAs out of 32 updated the WACC with reference to the previous year of data collection). All other parameters provide a much lower explanation to the variation of the final WACC (see Annex 2 of the 2017 RA Report (BoR (17) 169) for details). RFR and ERP are in fact the parameters to which NRAs refer most for assessing their country-specificity.

Moreover, it is possible to observe a positive relation between the final WACC values and the corresponding credit rating of the country.



The currency of the country may have an impact, too (through the expected inflation rate).

Summing up BEREC believes that national economic and financial conditions in every Member State mainly explain the differences in the current WACC levels estimated by NRAs.

Question 8:

Are differences in the methodologies used by NRAs to estimate the WACC likely to distort market participant's investment decisions and create inefficiencies affecting the Digital Single Market?

- ○ ○ Yes, very much
- ○ ○ Yes, to some extent
- ○ ○ Only a little
- ◉ ○ Not at all
- ○ ○ I don't know

Please explain your response.

Considering that main differences in final WACC values are mainly explained with respect to “country specific” parameters that, according to BEREC, should be considered in a proper WACC estimation (see answer to Q6), in BEREC’s view the differences observed do not lead to investment distortion (para. 26 BPP). The crucial role of taxes in affecting real return on capital invested has for instance a stronger impact on investors’ choice than other technical parameters of the formula. In any case, BEREC did not find literature supporting investment distortion in electronic communication infrastructure in Europe based on differences in WACC nor did we see evidence on this point in the background document. There is also evidence of SMP operators which invest in other EU countries.

Question 9:
Should the Commission act to reduce inconsistencies in NRAs' methodologies to estimate the WACC?

Yes

No

I don't know

Please explain your response.

BEREC welcomes the initiative of the Commission aiming at promoting the convergence of the methodological framework to calculate the WACC. However, as explained above (see answers to Q6 – Q8), BEREC does not see "*significant discrepancies in NRAs' approaches to estimating WACC*" (Commission Targeted consultation document, para. 1).

Therefore BEREC considers that a principle-based framework is sufficient for the further convergence of WACC calculations as it balances the need for flexibility of NRAs when calculating the WACC for regulatory purposes while at the same limiting this flexibility by the need for consistency across countries.

The process of convergence is also pushed by the BEREC Regulatory Accounting EWG annual benchmarking activity on WACC calculation (on which the answers to the questions above are based) which is contributing to share knowledge among NRAs on several aspects of WACC estimation, to highlight common approaches, thus smoothing differences among NRAs practical application. Reported differences are reducing year by year. (para. 29 BPP)

Question 10:
Are there important risks in applying a consistent methodology to estimate the WACC in regulatory proceedings in the electronic communications sector across the EU?

Yes

No

I don't know

Please explain your response.

Supported by the evidence collected, BEREC would like to underline that in case the Commission's guidance would suggest to move to a pure notional approach for both RFR and ERP estimation, the effects in terms of final WACC changes with respect to the values currently in force could be quite substantial (most of all if combined with an “SMP beta” estimation). Such a message is by far crucial considering the proposed “principle framework”, on which BEREC agrees, and in particular considering the principle of predictability and efficiency which implicitly consider shocks as not proper regulatory outcomes. Furthermore it would contradict the principle of legal certainty and hence a stable regulatory environment. This might have a negative effect on investment in electronic communications infrastructure. (para. 33 BPP)

BEREC therefore asks the Commission to take account of the impact of changes to the WACC values related to the methodological proposals by the Commission. The importance of the WACC in the regulated price implies a high sensitivity to changes. (para. 131 BPP)

Question 11:
Should the Commission assess the most appropriate approach to derive the WACC based on the principles of consistency, predictability, efficiency, and transparency as defined below?

Consistency: is achieved when related WACC parameters are estimated using the same methodology and assumptions.

Predictability: is achieved when NRAs, in estimating a WACC parameter, adopt a stable regulatory approach that mitigates uncertainty over time regarding (i) the methodology used by the NRA and (ii) the value of the parameter.

Efficiency: is achieved when the approach used by an NRA to estimate the WACC ensures the right balance between the three different types of economic efficiency: productive, allocative and dynamic efficiency.

Transparency: the approach used by NRAs to estimate the WACC and each of its parameters should be transparent to stakeholders. For this, the approach used should avoid unnecessary complexity, be made accessible to stakeholders and favour the use of publicly available resources, where possible.

- ○ ◉ Yes, these four principles are the most appropriate ones
- ○ ○ No, one or more of these principles are not appropriate (please specify which principles)
- ○ ○ No, there are other principles that should be considered (please specify which principles)

I don't know

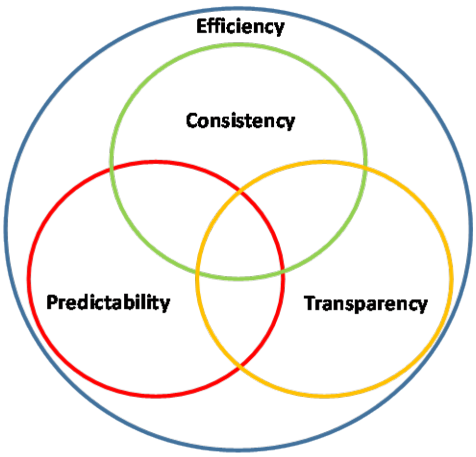
Please explain your response.

BEREC welcomes the position of the Commission to define a “principles framework” for WACC estimation that is relevant within the regulatory discretion of NRAs in WACC estimation. (para. 9 BPP)

Overall BEREC agrees with the description of regulatory principles. BEREC itself has promoted three of the four principles, the fourth one being efficiency (BoR (17) 169), Chapter 5 – WACC). (para. 10 BPP)

With regard to the detailed comments on the four principles BEREC refers to the para. 11 – 18 BPP.

In para. 19 BPP makes some remarks with regard to the hierarchy of principles: “In terms of hierarchy of principles, BEREC thinks that all principles are equally relevant in the WACC estimation (which may imply the need for NRAs to balance them); as an underlying economic principle, “efficiency” might have a greater influence on the judgement of the “final value” of the parameters for checking the methodology, and thus can be positioned as follows:”



BEREC considers that the adoption of the outlined four principles as high level guidance for the regulatory WACC calculation would not lead to “notional EU” values for every parameter. (para. 20 BPP)

5.2. Estimation of the WACC parameters

The estimation of the WACC requires calculating the value of each of its parameters. To do this, NRAs rely on rates of return on specific assets that best approximate the value of the theoretical parameter in the CAPM framework. In this regard, NRAs can choose between different approaches.

The following questions relate to the approach to follow when estimating the WACC parameters and present some preliminary options which would follow the general principles described in question 11 above.

Risk-Free Rate (RFR) and Equity Risk Premium (ERP)

Question 12:
Should the RFR (i.e. the return on a risk-free asset) and the ERP (i.e. the return on equity over and above the return on that risk-free asset) be estimated consistently? (i.e. either both should be estimated based on an EU (notional) value or both should be estimated using a domestic value)

- ○ Yes, both should be estimated based on an EU (notional) value
- ○ Yes, both should be estimated based on a domestic value
- ◉ No, one parameter can be estimated based on an EU (notional) value and the other parameter can be based on a domestic value (no consistency in approach needed)
- ○ I don't know

Please explain your response.

In theory there should be a connection between the risk free rate (RFR) and the ERP, which is why the EC suggests a common EU RFR and ERP. However, BEREC does not see this as an absolute condition. When taking into account national circumstances (and thus not only taking into account the view of a financial investor) it is appropriate to base the RFR on a domestic government bond, while setting the ERP based on a broader view. This is supported by the fact that the majority of member states favour domestic 10-year government bonds to calculate the risk free rate, and the calculation of the ERP could therefore be based on the appropriate government bonds in relation to the target market.

As mentioned in BEREC's position paper (BPP) – para. 41 and 42 – it is BEREC's majority opinion, that it makes economic sense to use domestic bonds to calculate the RFR. This is to consider country specific risk such as national economic situations, regulatory risk etc. Further to this, as mentioned in BPP para. 44 using a common EU bond value seems inappropriate for non-Eurozone countries. This is the case where a domestic bond better reflects interest rate for the domestic currency. BEREC suggests calculating the RFR by using domestic bonds. BEREC suggests that the ERP could be based on a broader view.

Question 13:
Do you agree with the following statement?

"It is justified to estimate both the RFR and ERP using an EU (notional) value (rather than a domestic value), in order to take into account that:

1. in the CAPM framework, only non-diversifiable risks should be rewarded and a domestic parameter value would incorporate diversifiable country risk;
2. the shareholders of EU SMP operators are mostly non-nationals (particularly, large shareholders which are the most likely to influence the company's decisions), implying that a "home bias" is unlikely in the case of EU SMP electronic communications operators
3. transaction costs from holding equity in different EU markets are likely to be small."

- I agree that the RFR and ERP should be estimated using an EU (notional) value for these reasons
- I agree that the RFR and ERP should be estimated using an EU (notional) value for the reasons given above and also for other reasons (please specify any other reasons)
- (x) I do not agree that the reasons provided above support the estimation of the RFR and ERP using an EU (notional) value (please explain why)
- I don't know

Please explain your response.

BEREC is of the view that the WACC is first of all determined as part of a regulated price of an SMP operator (i.e. a way to implement the cost orientation remedy), and not only from the perspective of a (financial) investor, as it is commonly used in cost models that generate results related to national electronic communications markets. It is further supported by home bias in financial markets. Sector-specific regulated WACC calculations by NRAs necessarily incorporates regulatory objectives according to the current EU framework which may not be reflected in a pure financial WACC. Moreover, an EU (notional) value does not comply with this view (para. 4 in the BPP).

As mentioned in question 12: BEREC is of the view that the RFR should be calculated based on domestic bonds. BEREC refers to para. 43 in the BPP where BEREC argues that using an average (notional) EU yield would mean a levelling of the RFR between member states. This is the case as the yield on domestic bonds are different between member states and an average would mean that the RFR for some member states would be too high and for other member states too low and thereby distort investment incentives.

Question 14:
Should the ERP be estimated using published historical series (examples of these being the ones published by Dimson, Marsh and Staunton ('DMS'); Damodaran (2017) or Duarte (2015)), or is another type of approach (such as surveys of financial investors) preferable?

- (x) Yes, it should be estimated using published historical series.
- ( ) No, it should not be estimated using published historical series, another approach should be used (please specify which).
- ( ) I don't know

Please explain your response. Please also mention which published historical ERP series you consider preferable (e.g. DMS, Damodaran, Duarte or alternative sources of published historical series) and the reasons for your preference.

BEREC is of the opinion that the ERP should primarily be based on historical data (determined with modern indexing technology), but it may be necessary to consider other approaches (like the Dividend Growth Model) as a sanity check, as a technical adjustment or as a replacement (BPP para. 62 to 67). This approach supports the principles of consistency and predictability (BBP para. 11, 14).

Question 15:
If an EU (notional) approach was used to determine the RFR and ERP, how should they be estimated?

- They should be estimated using an off-the-shelf estimate of the EU ERP (for example, DMS provide an average for 13 European countries)
- They should be estimated via a weighted average of all EU Member States' ERP
- Neither an off-the-shelf ERP nor a weighted average of all EU Member States' ERP is appropriate, another approach should be used (please specify)
- I don't know

Please explain your response.

BEREC is of the opinion that there should not be an EU notional approach, an estimation should be based on domestic requirements.

Question 16:
Should the RFR be adjusted for the period overlapping with a period of quantitative easing programmes of EU central banks in order to account for their impact on Treasury bond yields?

- Yes
- No
- I don't know

Please explain your response.

BEREC is neutral on the point of Quantitative Easing. As mentioned in the BPP para. 58 BEREC is of the understanding that the ECB procurement programme (public sector purchase programme) ran until December 2017.

Equity beta, gearing and cost of debt

Question 17:
Should the equity beta, the gearing and the cost of debt be estimated using the domestic SMP operator as the main focus to better reflect the non-diversifiable risk of the regulated company, which is likely to be influenced by the characteristics of the domestic electronic communications market?

- [ ] Yes, without further conditions
- [ ] Yes, but their value should be compared with (and potentially adapted to) the values of a benchmark of peer EU electronic communications companies, in order to ensure that the domestic parameter value does not reflect inefficiencies of the SMP operator
- [x] No, another approach should be used for the calculation of at least one of these parameters (please specify)
- [ ] I don't know

Please explain your response.

Beta
BEREC is of the opinion (BBP para. 80 and 81) that beta could be based on a benchmark group of European telecom companies or alternatively on the domestic SMP operator. BEREC argues that in the absence of a pure play operator providing relevant regulated services, weight could be placed on the betas of a benchmark group of European telecom companies or the domestic SMP operator's beta. However, the choice of approach depends on domestic circumstances and the NRA's broader approach to regulating prices. For example, in some circumstances it may be appropriate to place more weight on the domestic SMP operator's beta: when a disaggregation approach is used, where a significant proportion of its business is regulated, where the approach to setting prices is based on the SMP operator's costs or where there are particular risk factors that the regulator wants to take into account. In other circumstances it may be appropriate to estimate the beta by reference to benchmark operators – for example where there are several operators with SMP (e.g. in mobile termination markets), the domestic SMP operator is not listed or where its regulated activities represent only a small proportion of its business or where the NRA's approach to setting prices is based on the costs

of a hypothetical operator. In these latter cases a sample of companies could provide a more robust estimate of the beta.

Gearing
BEREC agrees that for the purposes of de-levering the equity beta to estimate an asset beta, the time horizon for estimating gearing should be consistent with the time horizon for the equity beta. However, there may be circumstances where future gearing is expected to be different to historic gearing, therefore NRAs should be able to consider different time horizons for this purpose.

Cost of debt
The cost of debt consists of the Risk Free Rate and the debt premium, and BEREC considers that in theory there should be a connection between the RFR and debt premium. However, the EC background paper does not explain how the debt premium should be estimated. This would need to be made transparent if the cost of debt was to be estimated using the risk free rate and the debt premium. As a starting point BEREC agrees with the Commission that the cost of debt should be estimated based on corporate bonds. But, as mentioned in the BPP para. 100, BEREC argues that where corporate bonds are not traded publicly the use of the operator's credit rating to estimate the debt premium could be an alternative approach. This could be done by collecting credit rating from an operator's website and then comparing it with the credit risk premium in a general table from Professor Aswath Damodaran. Moreover, estimating the cost of debt based on the domestic SMP operator might be difficult as not all the necessary information is available to all operators and countries i.e. some SMP operators might not have traded bonds or might not have bonds with maturities equal to the benchmark proposed by the Commission (BPP para. 99). Therefore, BEREC proposes that the cost of debt could also be estimated using other methods including using benchmark bonds with a similar credit rating to SMP operators.

Question 18:

If a benchmark of peer EU electronic communications companies was used in the calculation of one or more parameters, please indicate which of the following criteria should NRAs use to select the operators in the peer group:

☐ ☑ ☐ ☐ The operators are listed and have liquidly traded shares

☐ ☑ ☐ The operators own and invest in electronic communications infrastructure

☐ ☑ ☐ The operators have their main operations in the EU

☐ ☑ ☐ ☐ The operators have investment grade credit ratings

☐ ☑ ☐ ☐ The operators are not involved in any substantial mergers and acquisitions

Please explain your response

BEREC is of the opinion that all of the above mentioned criteria may be used to select the operators in a peer group. Operators need to have publicly available share information, own and invest in infrastructure hence no alternative operators should be included. The operators should have their main operations within EU as this is the market which is needed to be reflected in the calculation of capital of cost. The operators need to have an investment grade to reflect a stable business. The operators should not be involved in any substantial merger and acquisitions as this will affect the share hereunder the beta.

BEREC considers that additional criteria may be included such as ensuring that the company does not represent a significant proportion of the market index, an analysis of the business activities of each company (e.g. the extent to which it is active in fixed line versus mobile operations) and the inclusion of comparators from outside of the EU where appropriate (BPP para. 88)

Question 19:
Should the equity beta be estimated regressing the company's returns against an EU (or domestic) market index that is consistent with the choice of a notional EU (or domestic) calculation assumption for the RFR and ERP?

○ ○ Yes, it should.

○ ○ No, the choice of market index should not necessarily be linked to the geographic scope of RFR and ERP.

○ ○ I don't know

Please explain your response.

The choice of index will depend on the peer group chosen to calculate the beta.

Please explain your response.

Question 20:
If the equity beta was estimated regressing the company's returns against an EU market index - rather than against a domestic market index - which index should be used?

☐ ☐ ☐ ☐ S&P Europe 350

☐ ☐ ☐ ☐ Eurostoxx50

☐ ☐ ☐ ☐ MSCI Europe

☐ ☐ ☐ ☐ STOXX Europe TMI Telecommunications Equipment

☐ ☐ ☐ ☐ STOXX Europe 600 Telecommunications

☐ ☑ ☐ ☐ Other (please specify) *In UK we use the FTSE All Europe but there may be others!*

☐ ☐ ☐ I don't know

Please explain your response.

BEREC considers that the Commission's proposal to use a European market index is most compelling for Eurozone companies, but that NRAs should be able to use alternative indices where this is supported by evidence (e.g. investor home bias supporting the use of a domestic index). In any case, the index used should contain companies that have own telecommunications infrastructure and offer respective wholesale products and services.

Question 21:
Should NRAs make adjustments to equity betas (such as Vasicek, Blume or Bayesian adjustments)?

Yes (please specify)

No

I don't know

Please explain your response.

As mentioned in BPP – para. 89 – BEREC wishes to highlight that some NRAs make adjustments to the equity beta and some do not.

BEREC agrees that with regard to the transparency principle the beta should not generally be adjusted, but NRAs should be able to apply an adjustment when they consider it to be necessary and where it can be clearly explained and justified.

Question 22:
Should the gearing be estimated using the book value of the company's debt, including the cost of long-term financial leases?

Yes

No

I don't know

Please explain your response.

In the BEREC BPP para. 92 BEREC states:

In terms of the gearing calculation:

“CF paragraph 92

- BEREC agrees that book values can serve as a proxy for the market value of debt;
- BEREC agrees that debt should include long term debt including long term finance leases;
- BEREC considers that NRAs should have flexibility to consider how to take account of short term debt and cash;
- BEREC agrees with the Commission's proposal that NRAs may consider whether it is appropriate to include pension liabilities in the debt calculation."

RFR, ERP, cost of debt and equity beta

Question 23:
Should the RFR, the ERP and cost of debt be based on bonds (i.e. Treasury bonds in the case of the RFR and ERP, and corporate bonds in the case of the cost of debt), with the same maturity to ensure consistency in the calculation?

- [ ] Yes
- [x] No, the maturity of the bonds used to calculate the different parameters should not necessarily be the same.
- [ ] I don't know

Please explain your response.

Corporate bonds have different maturities, and it is not reasonable to apply a minimum of ten years to maturity for corporate bonds as it excludes many corporate bonds and thereby the possibility to calculate cost. Some companies have hybrid bonds with a 100 year to maturity, but it is common to roll the debt forward - a minimum of five year period to maturity could be reasonable. RFR should be calculated on the rate of 10-year government bonds.

Question 24:
Please indicate the maturity of the Treasury bonds and corporate bonds that should be used to estimate the RFR and cost of debt:

- ○ ○ 5 years
- ○ ○ 10 years
- ○ ○ 20 years
- ● ○ Others
- ○ ○ I don't know

Please explain your response.

As stated in question 23: Government bonds should have a maturity of 10 years while corporate bonds should have at least five years to maturity on which the spread is calculated for the cost of debt in order to have sufficient number of data points and the availability of data for the relevant companies.

Question 25:
If the yield on a 10-year maturity Treasury bond was used to derive the RFR, should its value be adjusted upwards to account for the fact that historical ERP series are typically based on excess returns over 20-year maturity bonds (which have a higher yield)?

- ○ ○ Yes
- ○ ○ No
- ○ ○ I don't know

Please explain your response.

The majority of BEREC's members agree to apply such an adjustment to the risk-free rate if the RFR is based on a 10-year government bond and if the ERP is computed with bonds of another maturity.

However, BEREC would like to question the proposed "*the adjustment of around 40 basis points (…) to reflect the average difference in yields between 10-year and 20-year maturity Treasury bonds*"[2].

BEREC understands that these two assumptions, 40 basis points and 20-years maturity bonds, come from the Brattle report[3], see also BPP para. 49/50.

Question 27:
In your view, what is the appropriate lenghth of the averaging period (time-frame of the data used for the calculation) that should be used to determine the RFR, the ERP, the equity beta and the cost of debt

- Less than 1 year
- 1 year
- 2-4 years
- 5 years
- 6-7 years
- 8-9 years
- 10 years
- More than 10 years

Please explain your response.

BEREC finds that when looking at the averaging window some trade-offs between a forward-looking estimation and a reduced volatility of the bond yields needs to be considered. See para52 of the BPP. Overall, BEREC suggests using a 3-5-year averaging period for the calculations of RFR and equity beta. The ERP should primarily be based on historical data as it provides information about the returns investors realised in the past. Historical data over a longer period of time reflects a wide range of market conditions, which means that it stretches over periods up to and even above 100 years. Concerning the cost of debt should preferably be based on spreads between corporate bonds and government bonds with appropriate maturity. But given that they are issued with varying maturity it is not always possible to base it

[2] See the Commission background document p.4
[3] See Brattle final report, part VI.A.3.a page 33 and following

on a five year averaging period which calls for some flexibility in the implementation, therefore a particular averaging period should not be specified.

Question 28:
In your view, what kind of averaging method (calculated over the averaging period) should be used to estimate the RFR, the ERP, the equity beta and the cost of debt?

Arithmetic average

Geometric average

Median

Another type of average should be used

I don't know

Please explain your response.

There is an abundance of scientific research that supports the use of either method, or a mixture, when calculating the ERP. The implication of research, which captures qualities of the different averaging methods, is that the true market risk premium could lie between the arithmetic and geometric averages. Given that there is neither theoretical nor practical evidence for a specific method, BEREC is neutral with regard to the averaging method, but is of the opinion that NRAs should use at least between RFR and ERP a consistent averaging method across parameters. (BPP para. 75 and 76)

Question 29:
What observation frequency should be used to estimate the RFR, the ERP, the cost of debt and the equity beta?

Daily Data

Weekly Data

Monthly Data

I don't know

Please explain your response.

BEREC considers that daily data would increase the reliability and the statistical significance even though BEREC understands the need for consistency in the calculation of the different parameters. However, BEREC considers that the difference between using weekly or daily observations in the calculation of the RFR is minimal and will not insist on this point. See BPP para. 54 to 56.

Inflation

Question 30:
Which approach should be used to determine the inflation rate, which is used to derive a real WACC?

The inflation rate should be consistent with the approach used for the RFR and the ERP (i.e. use an EU-wide inflation rate if EU RFR and ERP were chosen, or use a domestic inflation rate if domestic RFR and ERP were determined)

The approach for the calculation of the inflation rate should not necessarily be consistent with the approach used to determine the RFR and the ERP

Please explain your response.

RFR and inflation rate are interrelated, the approach should therefore be consistent. However, this does not equally hold true for RFR and ERP, therefore a different approach may be chosen.

Question 31:
Should the inflation rate used to derive a real WACC be forward-looking with a time horizon closest to the maturity period of the Treasury bond used for the calculation of the RFR and ERP?

Yes

No

Please explain your response.

Forward-looking price increases are always subject to assumptions concerning the market development. These assumptions are not academically quantifiable and also do not satisfy the principle of transparency (BPP para. 12).

Please explain your response.

I don't know

Please explain your response.

Forw ard-looking price increase

5.3. Distinction between electronic communications services

Question 32:
Should NRAs be able to set different WACCs for the services they regulate (fixed networks, mobile networks, NGA networks, etc.)?

Yes

No, all services should have the same WACC

I don't know

Please explain your response.

BEREC is of the opinion that NRAs should be able to set different WACCs for different services, but that it should not be mandatory to calculate different WACC-values.

Question 33:

Do you agree with the following statement?
The most appropriate way to differentiate the WACC between services is to disaggregate the regulated company's beta and cost of debt. Compared to Discounted Cash Flow modelling, it ensures (i) consistency between the WACC estimated for individual services and the company's average total WACC; (ii) regulatory predictability as it relies less on the regulator's judgment and assumptions; (iii) a more efficient estimator of the market expectations as to the risk associated with the company's activities; and (iv) simplicity and transparency for stakeholders.

Yes, I do.

No, I don't (please specify which alternative approach is more appropriate)

I don't know

Please explain your response.

BEREC finds that NRAs should be able to differentiate the WACC between different services, but that it should not be mandatory to calculate different WACC values. Ideally the WACC for different services should be calculated based on “pure-play” operators e.g. WACC for mobile services are calculated based on data for operators offering only mobile services. BEREC finds that "pure-play" operators are almost non-existent, and a calculation based on information from "pure-play" operators is not possible. However, there may be different ways of calculating WACC for different services when information from "pure-play" operators is not available. One option is to disaggregate the beta-value from one or more operators offering more services (i.e. mobile-, fixed and/or NGA-services).

In the BPP para. 125 BEREC considers that it may be possible for some NRAs to disaggregate the domestic SMP operator's asset beta where information and conditions permit, but it is a more complex approach which will not be appropriate in all circumstances. BEREC does not consider that the Commission should require NRAs to distinguish between different regulated services using a beta disaggregation approach.

5.4. Transitional period

Question 34: Should there be a transitional period during which NRAs could converge towards the approach described in the Commission's Guidance?

Yes (please specify the appropriate length)

No specific transitional period is needed

I don't know

Please explain your response.

In order to comply with the principle of predictability (BPP para. 11) and to avoid excessive price jumps for individual wholesale products, BEREC believes a transitional period of more than three years to be appropriate (BPP para. 130).

Question 35:
Would a transitional period of 3 years be appropriate considering that (i) market reviews are currently conducted every 3 years and (ii) business cycles have an average duration of 5 years? A 3-year period would be approximately half-way through this period.

- Yes
- No
- I don't know.

Please explain your response. If your answer is "no", please indicate which transitional period (if any) would be preferable.

See question 34.

If you wish to provide additional information on the responses you provided in this questionnaire, please use the text box below.

If you wish to submit a document (eg: position paper, study, etc.) please click on the button below.

The maximum file size is 1 MB

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