



**Telefónica reply to the IRG's consultation on
"Principles of Implementation and Best Practice for WACC calculation"
(September 2006)**

Comments on PIB 1 - The use of WACC methodology as a method to calculate the cost of capital

Regarding the application of the WACC methodology for calculating the cost of capital, Telefónica agrees with IRG that it is currently the generally accepted method and, therefore, the most widely used within the financial community and the various market players operating in the telecommunications sector.

As far as the main parameters involved in its calculation are concerned, Telefónica would like to make the following comments on several aspects of the document submitted to consultation.

Comments on PIB 2 - The gearing ratio

In principle, Telefónica considers that of the three methods being considered by the IRG (book values, market values and the establishment of optimal or efficient gearing), the most appropriate would be the second one, i.e. the use of market values, given the fact that it is the most widely accepted at the academic as well as at the practical level.

In the case of financial debt, given the possible difficulties that could be encountered in determining its market value, as an approximation, the book value showing debt for the previous year could be used.

Regarding the market value of equity capital, in the case of those companies not quoted on the stock exchange, which form a part of a group (as is the case of operating businesses within Telefónica) the estimates made by analysts at major investment banks in their corporate valuation reports (whenever they use valuation by a sum of parts) could be used as an approximation of their value.

With regard to the third option for calculating an optimal debt structure, in addition to agreeing with the IRG about its subjectivity, Telefónica would also like to point out that it involves an excessively theoretical approach, for which no conclusive results exist in practice. In fact, the existence of an optimal structure for capital is based on the assumption that the overall value of the company increases with gearing, up to a certain level, at which point bankruptcy costs

compensate the decrease in WACC resulting from the greater proportion of outside resources. In practice, the gearing-spread curve of credit-costs for bankruptcy is very difficult to determine, which in turn makes the implementation of this alternative difficult. Therefore, for WACC calculation purposes, its application should be ruled out for determining this parameter.

However, it should be noted that if any of the three methods mentioned is applicable because there is sufficient information, the regulator would not need to carry out any form of adjustment because this situation would provide a greater amount of freedom in the calculation of the parameters needed to achieve the regulators' WACC objective. Therefore, PIB 2 should be modified in such a way as to eliminate the discretion suggested and limit adjustments to situations in which the methods outlined in the PIB are found not to be valid.

Comments on PIB 3 - The Cost of Debt

With regard to the calculation of this parameter, Telefónica considers that the most appropriate method should be the one that most approaches the real financial cost borne by the company regulated. In this respect, this financial cost should be approximately determined based on the most appropriate financial instrument (for example, amongst others, Credit Default Swaps (CDS) could be used. These instruments, which belong to the secondary market, reflect the credit risk that the market grants a company and, therefore, reflect the current conditions of finance costs).

Indeed, overall, the cost of capital should reflect the “price” a company has to pay for a specific amount of capital. This price results from market forces by balancing supply and demand such that the best estimation is solely based on data observed on the market. The IRG already favours methods, which strictly reflect the conditions on capital markets. Capital markets are known to be very competitive which in turn implies efficient market results. This means that every adjustment made by NRAs to correct for inefficiencies might only result in an inefficient estimator of the cost of capital and is therefore counterproductively.

Therefore, Telefónica recommends the deletion of the remarks about efficiency adjustments of market-based data. Indeed, there is no justification for corrections for efficiency by the regulator in view of a market-driven determination of the cost of capital. NRAs should not make efficiency adjustments to a company's gearing of debt. In light of this, chapter 3.2 and PIB 2 should be changed accordingly, and the second option described in PIB 3 should be deleted.

Comments on PIB 4 - Different methodologies to calculate the cost of equity

Telefónica agrees with IRG in considering that amongst the various possible methods for calculating the cost of capital (WACC), the CAPM model is the most appropriate since, in spite of the problems that exist in determining the principal

parameters that apply and the questionability of the underlying hypotheses, it is the one most commonly used by players on the market.

Telefónica takes this opportunity to highlight the fact that, together with the use of the traditional method (CAPM) for determining the systematic risk of investment projects normally undertaken by a company, the use of the “Real Options” method opens a new set of tools in the area of corporate finance, which are developing accordingly and being accepted by various players operating in the sector. These methods will allow this risk to be evaluated in a more effective manner, in those cases in which either due to their emerging nature or due to the huge risk involved, the projects cannot be properly evaluated using traditional methods.

In this respect, and faced with the critical evaluation of these tools made by IRG in the document submitted to consultation, Telefónica considers that for certain projects and services, this method will constitute a useful technique in the future. Even some European regulators, such as Ofcom, have recognized this, and have started to consider the possibility of using this method for analysing new projects such as the next generation of access networks.

The regulatory risk (chapter 3.5 of the document)

Telefónica wishes to highlight the regulatory risks arising from situations in which regulators have excessive discretion to intervene. In line with the aims of this exercise, Telefónica suggests that NRAs could establish certain self-imposed limitations in terms of regulatory discretion in these matters, in order to mitigate the regulatory risks arising from these situations.

Comments on PIB 6 - The risk free rate

Faced with the use of recent historic rates for determining the risk-free interest rate, Telefónica considers that in order to better reflect the situation of public debt markets scheduled for the fiscal year to be analysed, the average forecasts for the next four quarters should be used by all analysts who regularly perform this type of projections. These figures better reflect what may be the trend for the fiscal year to which the rate of return is going to be applied.

With regard to the instruments issued, in Telefónica’s opinion the most appropriate approach is to take as a reference the instrument with the longest time frame (even managing to use a 20-year time frame as a reference), since it involves applying the estimate of capital costs for long-term investments.

Comments on PIB 7 - The risk premium

Based on the information available, Telefónica considers the balanced application of the various approximations proposed by IRG to be reasonable.

Obviously different premiums could be considered (required, expected, implicit

and historical) and academic research has so far reached mixed conclusions on this front so far, and a unique rate seems to be difficult to reach.

Indeed, the best parameter should be the required market premium by the investor, which obviously is subjective and varies for each investor. Studies on local market conditions that are available for this parameter should also be used, insofar as they exist and are in line with other studies regarding this matter.

Comments on PIB 8 - Beta estimation

Telefónica is aware of the difficulties involved the estimation of the beta parameter and agrees with the following points:

- For those companies that are quoted on the stock exchange, the estimation of the beta parameter occurs directly using the linear regression methods involving historic profitability.
- For those companies that are not quoted on the stock exchange, a sampling of comparable companies that are quoted on the stock exchange has to be identified.

Comments on PIB 9 - Headline versus effective tax rate

In principle, Telefónica agrees with IRG in considering that a major risk of volatility exists in the application of the effective tax rate. In this respect, Telefónica considers that insofar as possible, not considering the impact of extraordinary operations would allow any distortion that might appear to be corrected, by including the fiscal effect of the extraordinary results in the calculation of the rate of return.

A possible acceptable alternative would be to take the effective tax rate of the fiscal year immediately prior to the WACC calculation period as a reference, by better reflecting the current situation involving the costs for the company.

Comments on PIBs 10 – 12 - The divisional Cost of Capital

As far as the use of different betas by area of activity is concerned, conceptually traditional services and new services (for example, broadband) have been considered with a totally different risk profile (due to their nature as well as the different maturity of each service).

In this respect, given that the beta specifically includes the business risk, the use of different betas might seem reasonable. However, in Telefónica's opinion, there are several factors that make its disintegration impossible.

First of all, regarding the distinction of those beta based on the group of services, in the case of Telefónica it would only be feasible if the underlying assets associated to these services were clearly differentiated. This, in turn, would allow

the use of different rates of return (resulting from the different beta).

It must be borne in mind that the rate of return applies to operating assets and subsequently the costs of capital calculated are attributed to different services using different objective criteria. However, there are a huge number of capital assets components that are commonly used to provide different types of services of a very different nature. Therefore, it is impossible to apply different levels of risk to the same assets based on the type of service for which they are used (for example, the same access component can be used to provide traditional telephone service or broadband services).

Another aspect, which in Telefónica opinion, partly calls into question the treatment of differentiated beta by the various lines of business, involves the very dynamic nature of the sector in which Telefónica is currently operating. In fact, faced with the idea that current services can be separated into those which have a lower level of risk, since it involves “traditional” services and those which are “emerging” or new, with a higher level of risk, the current evolution of the sector raises, to a great extent, major uncertainties about what has been referred to as traditional services (fixed-mobile convergence, VoIP, accelerated price decreases due to pressure from competition, etc.). Thus Telefónica’s current level of risk is considerably higher than what might have existed in the past, which was more stable.

In short, in Telefónica’s opinion, no totally pure comparables currently exist, while the calculation of the beta by lines of business is a difficult and inaccurate process. Given the fact that, in general terms, telecommunications companies are currently experiencing a high level of uncertainty and, inasmuch as a more extensive statistical base does not exist, for the time being only an “aggregate” beta, which properly includes the exposure to risk which companies in these markets are subject to, should be used.

Comments on Appendix A – The real option theory

IRG’s arguments about the concept of real options appear not fully developed and in parts not sufficiently thought through. Throughout the document, IRG claims that the real option theory is a concept to measure the cost of capital. That is not accurate because, as is also mentioned by the IRG, real options mainly exist before actually spending capital and thus - under the assumption of a perfectly competitive capital market needed for the applicability of CAPM - before actually raising capital on the market. Real options therefore mainly exist before there is any cost of capital.

Furthermore real options largely refer to the unsystematic risk of a firm whereas the CAPM only allows compensation for the systematic risk. This fact was already highlighted by Dixit/Pindyck, *Investment under Uncertainty*, p. 153:

“Thus investment is highly sensitive to volatility in project values, irrespective of investors’ or managers’ risk preferences, and irrespective of the extent to which the riskiness of V is correlated with the market.” [V marks the uncertain value of the project to be decided

upon. Volatility represents the whole risk including the systematic and the unsystematic part whereas the correlation between V and the market is just reflected by the project specific beta.]

It seems moreover that the IRG overestimates the potential positive values of an early investment. Certainly, first mover advantages may exist and have a significant impact on the timing of capital spending. In the case of a regulated industry, however, first mover advantages are often dissipated by the instruments of mandating access and cost based regulation of prices. Indeed, as long as the regulated prices do not reflect all costs including the opportunity cost from destroying real options, for a competitor it will be even preferable to use the first mover's network because by doing so competitors are able to avoid the above-mentioned opportunity cost.

In this context, IRG's reasoning is very difficult to follow. It seems to argue that real options have a value of zero because competitors no longer possess the option to invest as soon as the incumbent has spent capital on an area-wide network. This does not take into account that this phenomenon might only result from an improper regulation, which fails to take the impact of real options into account and thereby privileges the strategy of "buying" instead of "making".

For example, by mandating access NRAs create the competitors' real option to invest on the newly defined interface. As was already stated by Pindyck, *Pricing Capital under Mandatory Unbundling and Facilities Sharing* (April 2005), this real option is comparable to a financial option with competitors taking the long position and the incumbent taking the short position. As is well known the long position of an option contract has a positive value whereas the short position has a negative value of equal height. On capital markets this shift of value implied by an option contract is compensated by the option price. For regulatory purposes the real option price would have to be added to avoid distortions of make or buy decisions resulting from the ignorance of relevant opportunity costs.

Telefónica considers that further investigation of the theory and applicability of real options is needed. Future research should take into account all relevant academic literature on the topic and in particular consider the impact of regulation on the existence and value of real options.

Telefónica therefore recommends a separate, more thorough, investigation of the theory and applicability of real options by the IRG and the European Commission in the light of academic literature and that Appendix A not be part of the IRG's PIBs document.