TELECOM ITALIA's COMMENTS to
Principles of Implementation and Best Practice for WACC calculation

Telecom Italia welcomes the opportunity to comment on the public consultation on a draft ***IRG WG Regulatory Accounting Principles of Implementation and Best Practice for WACC calculation - September 2006***

The structure of the Document we are proposing is meant to select the statements of major concern and interest of the IRG draft in consultation.

The text is structured in several sections, in each section we are proposing how to modify and improve the selected text.

Every section is also completed by a comment to motivate the proposed changes and remarks.

In view of the specific technicalities of the issues discussed we are at disposal for any further clarification.

CHAPTER 2; INTRODUCTION

TI's comment 1: *as stated in the Executive Summary the value of the document should primarily be that of* ***providing guidance to NRAs*** *for estimating the cost of capital. Therefore TI suggests to make this point clear, in order to clarify that the document is to be seen as contribute to achieve greater harmonisation among Member States.*

TI therefore suggests the following clarifications:

This document has the objective of providing guidance to NRAs for estimating the cost of capital by identifying principles of implementation and best practice (PIBs). The purpose of this document is also to share experiences on the cost of capital calculation and to discuss, among other things, the opportunity to adopt a divisional cost of capital for regulatory purposes.

CHAPTER 3; PARAGRAPH 3.1 Introduction to WACC and its parameters

WACC = Cost of Debt x Gearing +Cost of equity x (1 - Gearing)

TI's comment 2: *Tax burden can greatly vary from Country to Country, so differently affecting the pre-tax WACC value; it is important that this aspect is emphasized and fully appreciated by NRAs in order to avoid simplistic comparisons among Member States, based only on Pre-Tax values ;*
TI's comment 3: *The "post-tax" formula should be written in such a way that it is clear that the WACC is a "post- tax" WACC; therefore the item on the left should be :* **post-tax WACC .**

TI therefore suggests the following clarifications:

The tax burden, to which operators are subject to, due to the leverage effect that they cause, should be considered when calculating the weighted average cost of capital, also because taxes can greatly vary from Country to Country, so differently affecting the pre-tax WACC value; it is therefore important that comparisons among Member States are not based on Pre -Tax values. However, also a post-tax benchmarking could be misleading since the post tax WACC is affected from country differences in risk rating and equity market premium; therefore benchmarking should always carefully consider such differences among countries and not be assumed as a key factor in determining the cost of capital for regulatory pourposes.

Therefore, the post-tax WACC is:

post-tax WACC = Cost of Debt x (1 – t) x Gearing + (Cost of equity) x (1 - Gearing)

where t is the tax rate.

CHAPTER 3; PARAGRAPH 3.1: Introduction to WACC and its parameters

TI suggests the following clarifications:

- **PIB 1: IRG acknowledges that the WACC methodology as a method to calculate the cost of capital is a widely accepted method, understood by both the finance community and the industry, and is already used by many regulators, on a pre-tax basis.**

- TEXT

For regulatory purposes the pre-tax WACC should be considered, since in Cost Accounting and Accounting Separation all tax related costs are excluded when allocating operating expenses (since no allocation driver can be appointed).
The general formula that can be adopted to define a regulatory pre-tax WACC is the following:

Pre Tax WACC = E / (D+E)* Ke / (1-T) + D / (D+E)*Kd

where:
E = Equity
D = Debt
Ke = Cost of equity
Kd = Cost of debt
T = Tax Rate

Note: However since this formula does not consider possible specific national tax regimes (as in the Italian case where two different taxes –and related tax basis- weigh upon company

net income) NRA's should carefully consider them when determining the pretax cost of capital.

CHAPTER 3; PARAGRAPH 3.2: The gearing ratio

TI suggests the following clarifications:

PIB 2: In the view of IRG, the level of gearing should be determined using a method consistent with the relevant capital employed and the availability of information, although some adjustments may be introduced, if required. In any case, gearing ratio should be based on market values.

TI's Considerations and suggested clarifications about the text in Paragraph 3.2:

International best practice provides for a gearing ratio based on market values, due to the fact that costs of capital are market values and coherently liabilities should be marked to market. The book value based method should not, consequently, be considered as a proper way to determine the gearing ratio.
When calculating the gearing ratio Net Debt should be considered. Besides, consistently with the capital employed according to Regulatory Accounting, components as Severance Fund and its related costs should be included.

In case "Optimal or efficient gearing" method is chosen by an NRA, market values of Debt and Equity should be considered. Moreover, NRAs should specify which companies have been chosen in order to define the efficient gearing and what the rationale of the choice is. Efficient ranges should be defined rather than a punctual efficient gearing ratio.

Finally, the same gearing ratio should be used to calculate the different WACC components (beta equity, cost of debt,…).

CHAPTER 3; PARAGRAPH 3.3: The cost of debt

TI suggests the following clarifications:

- **PIB 3: IRG acknowledges that the cost of debts can be calculated: .. i) by the regulator calculating an efficient borrowing level and the associated cost of debt based on correct market values; ii)using the sum of the risk free rate and the appropriate company specific debt premium. These approaches should consider the quality and relevance of the information available in order to obtain an estimate as accurate as possible, reflecting as much as possible correct market value.**

TI's Considerations about the text in Paragraph 3.3:

When calculating the cost of debt, not only loans should be considered, but also all other cost bearing forms of indebtedness, such as Bonds, Severance Fund, etc.

Moreover it should reflect as much as possible the correct market value, as well as the related liabilities. For this reason, using accounting data should not be included among the methods to calculate the cost of debt.

CHAPTER 3; PARAGRAPH 3.4: Different methodologies to calculate the cost of equity

TI suggests the following clarifications :

- **PIB 4: IRG observes that there are empirical shortcomings in the CAPM methodology. On the other hand, alternative models also have their own problems such as weak empirical foundations and empirical challenges. Therefore, at the moment CAPM is widely used for the purpose of calculating cost of capital, and should be used as commonly applied in the different financial markets.**

TI's Consideration about the text in Paragraph 3.3:

CAPM should be used as commonly applied in the different national financial markets.
The Dividend Growth Model method should be excluded, since best practice generally does not use such methodology in order to calculate the cost of equity. In the DGM, in fact, current stock prices should be considered, and therefore a great volatility would be implied in the model. Furthermore, the expected growth rate of dividends is difficult to assess.
Also APT and Fama and French three factor models should be excluded. In fact, APT leads usually to more practical problems than encountered when using the CAPM. As far as Fama and French model is considered, it is debated on whether the risk premium associated with the two additional factors (company size and book/market value) is statistically significant.

CHAPTER 4; PARAGRAPH 4.1: The cost of equity

- **PIB 5: IRG acknowledges that the use of CAPM as a method to estimate the cost of equity is supported by its relatively simple implementation and by its wide use among regulators and practitioners.**

No comment.

CHAPTER 4; PARAGRAPH 4.2: The risk free rate

- **PIB 6: IRG considers that the return of freely traded investment-grade government bonds can generally be used as a proxy for the risk free rate.**
  The relevant market, the maturity of those bonds and the kind of information to use (current/historical values, average, short/long period…) should be defined considering the circumstances of the local markets.

No comment.

CHAPTER 4; PARAGRAPH 4.3: The risk premium

TI suggests the following clarifications

- **PIB 7: Estimating the equity risk premium can be made through the use of one or more of the following approaches:**
  - **historical premium**
  - **adjusted historical premium**
  - **benchmark**

  These approaches should be balanced considering the quality and relevance of the available information in order to obtain an estimate as accurate as possible, and should be in line with common practice on the different financial markets.

TI's Considerations about the text:

The survey premium approach should not be applied in calculating the equity risk premium as it might be too influenced by contingent market movements and survey methodology.
The implied premium approach should also be excluded, since it would be subject to market fluctuations and thus it would lead to very volatile results (see also comments on the Dividend Growth Model method in PIB 4).
Besides, the approach used in order to estimate the equity risk premium should be in line with common practice on the different financial markets.

TI suggests the following clarifications

- **PIB 8: The estimation of the firm's beta can basically be made through the use of historical information and benchmark. Asset and Equity Beta should be considered. The choice of the approach depends on local market conditions, whether the firm is quoted and on the amount and quality of information available.**

TI's Considerations about the text:

In the case the firm is quoted, relevant beta estimation should be basically made through the use of historical information.
If, on the other hand, the firm is not quoted, beta estimation should be performed via benchmarking depending on local market conditions and the amount and quality of information available.

CHAPTER 4; PARAGRAPH 4.5: Headline versus effective tax rate

TI suggests the following clarifications

PIB 9: In order to estimate a pre-tax WACC a headline tax rate should be used. In doing so, the relevant national fiscal regime –tax rate(s) and tax base(s)- and the targeted network operations and regulated services should be specifically considered.

- *TEXT*

TI suggests the following clarifications

As we have seen in the beginning of this chapter, the WACC may be estimated post-tax or pre-tax. For regulatory accounting purposes it is necessary to adopt the **pre-tax** cost of capital, since tax expenses are not apportioned to the businesses in the regulatory financial statemens. When applied to the capital base, the **pre-tax** cost of capital indicates the operating profit required to finance tax and interest payments, while providing shareholders with their required return. To estimate an ex-ante pre-tax WACC, a decision has to be made as to which tax rate to use, headline or effective. While the use of the effective tax rate allows the company to recover the costs actually paid, this rate will inevitably vary from year to year, which can have a big impact on the cost of capital. Cost of capital for regulatory purposes is aimed to implement Cost accounting & Accounting Separation of the regulated businesses and network activities (i.e. relevant markets); consequently, it would be out of scope to include the impact of extraordinary operations (which generally have a specific tax regime and a highly variable impact on taxes), and consequently to consider the resulting total effective tax rate of the company, considered as a whole; besides, in the medium term, effective and headline tax rate applicable to the operating income are likely to correspond. For these reasons **headline tax rate** better matches the scope of estimating a pre-tax cost of capital applicable to regulated business and network activities, insofar it is much more stable than effective tax rate. In fact, in order to estimate the effective standard cost of network services and regulated businesses, the option to consider the effective tax rate resulting from the annual statutory P/L –particularly in case of consolidated statement would be misleading , since this include both non operational and transitional effects.

In addition NRA's should carefully consider the different national tax regimes which still exist over Europe, in order to take into account all the taxes and their peculiar tax basis and tax rates (for interests, cost of equity and financial expenses) applicable to capital employed in the separated accounts .Whenever the tax rate applicable to operating profit is different than tax rate applicable to financial expenses, the formula should be consequently adjusted

CHAPTER 5; PARAGRAPH 5.1: Divisional Cost of Capital

PIB 10: IRG recognizes that in theory the adoption of a differentiated WACC is reasonable from a regulatory point of view. However, the lack of capital market information at divisional level makes the theoretically correct determination of beta in some cases difficult.

ERG Text:

"….. omissis …..…

It has to be noticed that, even if the debate on the opportunity to adopt a divisional WACC is quite strong among European NRAs, due to the problems related with its implementation its use is not so common. Currently only Ofcom in UK uses a divisional WACC for the incumbent operator BT, whereas France used it in the past."

TI's Considerations about the text:

TI agrees with IRG about the differentiation of WACC for Business Division Mobile, fixed, TV etc) but TI doesn't deem correct distinguishing between different regulatory Aggregate (Relevant Market), for example "Access Network" and "Backbone Network". Indeed NRA and Operators can estimate the different single Businesses WACC, because firms exist in these single main businesses (playing demand & supply) and many of these are quoted in a stock market, like Mobile, Fixed or TV. So in this case a comparable group of peers can be observed and it's possible to estimate a Beta that represents these single Businesses.Contrariwise, no firms operating in a single business named Access network or Backbone Network exist, and that causes the difficulty to define a correct beta risk based on Stock Market observations. In TI's opinion there is another aspect to consider: the risk is mainly correlate to the services supplied in a market, based on different network structures and not on single network elements (i.e. backbone network) that belong to a much more complex supply chain.

A comparison with firms operating in european telecommunication sector would represent the most appropriate method of estimation, as it allows to capture homogenous market aspects among firms observed. Differently, there are no tightened analogies with utilities and U.S. telco sector, due to different market dynamics, market risks and so on, surely more stable in utilities markets. It's worth also to remember that in Europe greater part of Utility companies has public properties, that doesn't help to give coherence to the bench analysis.

In conclusion, TI doesn't agree with IRG in considering benchmark with Utilities and U.S. telco sector a correct approach

CHAPTER 5; PARAGRAPH 5.2.3: Heuristic approach

TI suggests the following amendments to the PIB

PIB 11: IRG is of the opinion that every proposed methodology to calculate a divisional WACC has its pro and cons. Therefore, the best approach for NRAs should be the pure play competitor approach referring to european telco peers and whereas not available, as second best choice, the full information approach

ERG Text:

"The so called heuristic based approach provides a possible solution to the problems encountered in calculating the divisional cost of capital from the total cost of capital, given the lack of capital market information at divisional level. These techniques use the total cost of capital of a multi-divisional company and then takes into account data on various idiosyncratic, accounting and fundamental risk factors to obtain a risk-adjusted estimate used as a proxy for the true divisional cost of capital."

TI's Considerations about the text:

TI assumes that "Pure play competitor" guarantees an objective approach where discretional assumptions are limited. Furthermore it allows to analyse the proper market where the Business Division operates. On the contrary, TI considers "Subjective or heuristic approach" a too discretional method due to the presence of many estimated parameters, not observed in the market and, also, not based on rational equations as happens in full information approach.