

DETERMINATION OF THE EU GRANT AND SPECIFIC ISSUES OF COST-BENEFIT ANALYSIS

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Abstract: The objective of this paper is to present a set of working rules which will lead to more consistency and rigor in future cost – benefit analyses (CBA) and hence to better informed decision making. In order to ensure consistency within a Member State, it is proposed that Member States develop their own guidance frameworks taking account of specific institutional settings, particularly for transport and environment sectors. The paper provides guidance on determining the basis on which the EU grant will be established and the particular issues relating to the profitability that would normally be expected, the polluter pays principle, affordability and public private partnerships.

Key words: EU grant, cost-benefit analyses, profitability

Determination of the EU grant

Article 55(2) of the European Commission *Guide to cost – benefit analysis of investment projects*, 2002, maintains the funding-gap method as the basis for the calculation of EU grant in revenue-generating projects, stipulating that the *eligible expenditure* cannot exceed the current value of the investment cost less the current value of the net revenue from the investment over a specific reference period appropriate to the category of investment concerned.

However, in contrast to the 2000-2006 period, the eligible expenditure and not the cofinancing rate is modulated in order to relate the contribution from the Funds to the revenues generated by the project.

It should be noted that Article 55 applies to all projects and not just to major projects. However, “Member States may adopt procedures proportionate to the amounts concerned for monitoring revenues generated by operations whose total cost is below € 200.000” – Art. 55(5).

Scope

Art. 55 applies to investment operations which generate net revenues through charges *borne directly by users*. It does not apply to the following cases:

Projects that do not generate revenues (e.g., roads without tolls)

Projects whose revenues do not fully cover the operating costs (e.g., some railways)

Projects subject to state-aid rules – Art. 55(6).

As a general rule, for all projects that can be subject to COST-BENEFIT ANALYSIS (CBA) it should be possible to estimate the expected revenues, if any,

according to Article 55(2). When the estimation of future revenues proves to be difficult, particular attention should be paid to the sensitivity and risk analysis.

The determination of the level of Community assistance is based on the “funding gap” rate of the project, i.e. the share of the discounted cost of the initial investment not covered by the discounted net revenue of the project.

The identification of the eligible expenditure according to Art. 55(2) ensures that the project has enough financial resources to be implemented and avoids the granting of an undue advantage to the recipient of the aid, i.e. over-financing of the project.

There are presented the steps to be followed to determine the EU grant in accordance with Art. 55.

Steps to determining the EU grant 2007-2013 programming period

Step 1. Find the funding-gap rate (R):

$$R = \text{Max EE/DIC}$$

where

Max EE is the *maximum eligible expenditure* = DIC-DNR (Art. 55.2)

DIC is the *discounted investment cost*

DNR is the *discounted net revenue* = discounted revenues – discounted operating costs + discounted residual value

Step 2. Find the “decision amount” (DA), i.e. “the amount to which the co-financing rate for the priority axis applies” (Art. 41.2):

$$DA = EC * R$$

where

EC is the eligible cost.

Step 3. Find the (maximum) EU grant:

$$\text{EU grant} = DA * \text{Max CRpa}$$

where

Max CRpa is the maximum co-funding rate fixed for the priority axis in the Commission’s decision adopting the operational programme (Art. 53.6).

Specific issues

Normally expected profitability

Profitability refers to the amount of profit received relative to the amount invested. The simplest way to assess profitability is to measure the internal rate of return of the investment, that is the discount rate that makes the discounted flow of the project’s costs and revenues add up to zero. In other words, the internal rate of return is the discount rate at which a stream of costs and revenues has a net present value (NPV) of zero.

The profitability of an investment normally expected is that which provides enough income to exactly cover the inputs’ opportunity cost (the best alternative return that could be earned by the investor’s labour, management and equity capital).

The expected profitability may be strictly dependent on the project’s risks. Risk in turn depends on numerous factors such as: the socio-economic context of the country/region in which the project is implemented, the difficulties of implementation of the project, its economic lifetime, the currency exchange risk and, above all, the risk related to the projected revenues. These should be appropriately dealt with in the sensitivity and risk analysis. Art. 55 allows designing the Funds’ interventions in such a

way that normal expected profitability is duly taken into account and no over-financing occurs. This aspect is particularly relevant when a private partner is involved in the project. In this case, the contribution from the Funds should be determined prudently so that no undue profit is reaped by the private investor.

Table 1

NORMALLY EXPECTED PROFITABILITY			
Financing scheme Expected Profitability*	Mainly loans (+ low grants)	Loans + Grants	Public grants
Medium – high	Airports Energy Tourism Telecom/ICT Industrial estates and business parks Productive investments		
Medium		Solid waste Ports	
Medium- low		Tolled roads Public transport Water supply and waste water treatment plants	
Low			Railways Health care Education Research, innovation and technology transfer
None			Roads without tolls Flood prevention
* Source: DG Regio			

It should be noted that the table is based on the financial rate of return of the *investment* (FRR/C) which may considerably vary across country and does not necessarily reflect the profitability expected by the investor(s). This should be checked on a case-by-case basis by the project promoter, particularly when a private investor is involved, by estimating the relevant financial rate of return of *capital* (FRR/K).

Polluter Pays Principle

The Polluter Pays Principle is one of the principles of Community environmental policy (Art. 174 EC Treaty) and applies throughout the European territory. Specific Community legislative provisions exist for waste. Under Directive 2006/12/EC of the European Parliament and of the Council on waste, in accordance with the polluter pays principle, the cost of disposing of waste must be borne by the holder who has waste handled by a waste collector or by an undertaking and/or by the previous holders or the producer from which the waste came (Art. 15).

According to the Water Framework Directive (2000/60/EC) of the European Parliament and of the Council, “Member States shall take account of the principle of recovery of the costs of water services, including environmental and resource costs, in accordance in particular with the polluter pays principle” (Art. 9).

The Commission aims to encourage charging systems where the environmental costs of pollution and preventive measures are borne by those who cause pollution.

These charging systems should be proportional to the social marginal production costs, including costs for the environment and those linked to the scarcity of the resources in the case of water, or calculated in such a way as to influence the choice of use of the different modes of operation. So for instance, for transport infrastructure, the charge should cover not only infrastructure costs, but also external costs, i.e. costs connected with accidents, air pollution, noise and congestion.

It should be noted that the funding-gap method has disincentive effects for the application of the polluter pays principle as higher tariffs result in a lower contribution from the Funds, all else equal. However, managing authorities should bear in mind that an appropriate charging system is not only valuable from an economic point of view but is also desirable for the financial sustainability of operations in the long run.

Equity (affordability)

In the context of Art. 55, “considerations of equity linked to the relative prosperity of the Member State” are to be taken as referring to the affordability of tariffs. Art. 55 implicitly refers to possible variations of the Community assistance (through the determination of eligible expenditure), according to the relative wealth of the country or region concerned, that is to say the capacity of the users to pay. For a given project, the lower the tariffs the higher the EU grant, *ceteris paribus*. So, assuming that the tariffs are set to take regional (national) income levels into account, the lower the regional (national) income the higher the funds’ contribution. In order to enhance allocative efficiency, the Commission wishes to encourage the development of charging systems which reflect the social marginal production cost. However, when the affordability of tariffs is considered, Member States may wish to artificially cap the level of charges with a view to avoiding a disproportionate financing burden for the users, thereby ensuring that the service or good is affordable also for the most disadvantaged groups.

Ideally, the charging system should be based on the real consumption of resources, and tariffs should at least cover operating and maintenance costs as well as a significant part of the assets’ depreciation. An adequate tariff structure should be envisaged attempting to maximize the project’s revenues before public subsidies, while taking affordability into account. For instance, a commonly accepted affordability ratio for water supply and sanitation is 4%.

The Commission encourages the Member States to provide information in their guidance documents about the affordability ratios (for average and/or low-income groups) which may be taken as a benchmark for the projects that will be submitted for co-financing.

Managing authorities should be aware of the possible trade-off between the long-term financial sustainability of the operations and the level of tariff at which users will be charged for a good or service taking into account affordability criteria.

Public Private Partnership (PPP)

Public private partnership (PPP) arrangements come in many forms and are still an evolving concept which must be adapted to the individual needs and characteristics of each project and the project partners. PPP may be an appropriate method of financing investment where there is significant scope for involving the private sector, so as to provide additional capital and a more efficient service. Particular attention should then be paid to the legal structure of the PPP, as this may affect to some extent the eligibility of expenditure that can be co-financed. PPP arrangements appear particularly attractive for the new Member States given the enormous financing requirements, the large funding shortfall, the need for efficient public services, growing market stability, and trends creating a favorable environment for private investment.

In the context of CBA, the following aspects need to be borne in mind when the financial analysis is carried out:

The **financial discount rate may be increased** to reflect a higher opportunity cost of capital to the private investor. This should be justified by the project promoter on a case-by-case basis, providing evidence, where available, of the private investor's past returns on similar projects.

Under several types of PPP schemes (e.g., BOT, DBFO) the owner of the infrastructure (typically the public partner) is different from the operator (the private partner). The financial analysis is usually carried out from the point of view of the owner of the infrastructure. However, in such cases, **a consolidated analysis (owner and operator) should be used for the determination of the funding gap.**

Under Article 55(1), the revenue that needs to be considered for the calculation of the eligible expenditure and subsequently of the project's funding gap is that directly paid by the users through charges.

For instance, under a "shadow tolling" model, users pay no fees. Instead, the public body (owner) pays "tolls" to the private partner (operator) for a given concession period. Using a consolidated financial analysis for the determination of the funding gap ensures that the "tolls" are not considered in this case, consistent with the provisions of Article 55(1). Indeed, the revenue for the operator corresponds to the cost borne by the owner, so that in the consolidated analysis the two cancel each other out and do not affect the project's net cash flows.

Concluding remarks

Member States are responsible for applying the provisions laid down in the regulations with regard to cost-benefit analysis and revenue generating projects. For ERDF and Cohesion Fund major projects, the Commission takes the decision and in it sets the contribution from the funds in the light of the information contained in the application and further appraisals if necessary.

In order to ensure consistency within a Member State, it is proposed that Member States develop their own guidance frameworks taking account of specific institutional settings, particularly for the transport and environment sectors. The Commission will continue to assist Member States in their task, with the aid of JASPERS, in order to ensure proper application of EU guidance to national contexts.

This approach will bring substantial benefits in terms of simplification both for the Commission and the Member States, and thereby contribute to speeding up decision procedures for large projects. It will also have an important capacity building effect with a view to the programming period 2007-13.

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