The Public Spending Code:

E. Technical References

Shadow Price of Labour: 80% - 100%

E-03

Summary:

This document sets out the current range for the shadow price of labour which should be used in relation to economic appraisals such as CBAs. It recommends that a sectoral approach is taken to estimating shadow prices of labour in the first instance and also suggests additional criteria which can be applied in developing these shadow prices. The shadow price of labour should always be applied to the cost side of economic appraisals.

Overview

In estimating the labour costs for a project, the market rate may not always be appropriate due to distortions and imperfections in the labour market. The social opportunity cost of labour resource may be lower than the market rate due to underemployed resources and a shadow price can be applied to reflect this – usually a percentage of the actual price for labour. This note outlines the acceptable range for applying a shadow price for labour on projects.

As a starting point, market rates for labour costs should be used unless there is clear evidence that shadow prices are required. Where shadow prices are being applied and can be justified, a range of 80% to 100% has been set for the shadow price of labour. With this new range, 80% becomes the minimum shadow price of labour which must be applied in appraisals.

Those involved in the preparation of economic appraisals should apply rates within the 80% to 100% range based on objective evidence and criteria, focussing in particular, on sectoral conditions. Sensitivity analysis must always be conducted on the upper bound of the scale i.e. 100%. This range of acceptable values is consistent with previous centrally-set rules[1].

In addition, the shadow price of labour should be applied to the cost component of economic appraisals and not to the benefits.

[1] CSF Evaluation Unit, Department of Finance (1999), *Proposed Working Rules for Cost Benefit Analysis,* Dublin

Description

In general, market prices should be used in economic appraisal to reflect opportunity costs. This should be the starting point in estimating labour costs. However, a shadow price may be applied to account for the fact that the full economic cost of the labour involved in a project is lower than the market wage rate. For example, when unemployment is high, there are some labour resources with zero or low opportunity cost. However, it should be noted that previous research has also shown that job creation does not reduce unemployment one-for-one[2].

Methodology

The shadow price of labour may be project specific since it is derived from the local labour market conditions (e.g. unemployment, regional variations, migration) and labour skills profiles associated with projects. However, it can be time-consuming and resource intensive to determine project specific rates. In practice, a more consistent approach is to use a central range of values and this is the rationale underpinning the specification of a range of 80% to 100%.

In estimating shadow prices within this range, it is recommended that a sectoral approach is taken in the first instance– particularly for enterprise related projects. This is because the sectoral level is where labour market characteristics are most evident.

The criteria, assumptions and evidence used to justify the selection of the shadow price of labour should be transparently presented with any appraisal.

Application

In applying the sectoral shadow wage rates, the range of considerations which can also inform the relevant rate to be applied include, among others:

- Rate of sectoral unemployment
- Vacancy levels and unfilled vacancies
- Migration flows
- Skill levels
- Regional considerations

A range of 80-100% for the shadow price of labour implies that 0-20% of the benefit accruing from the labour component of a project may be included in the appraisal. For example, it is frequently argued that construction projects have employment impacts, particularly in the short term. While this is valid,

[2] Honohan (1998) , *Key Issues of Cost Benefit Methodology for Irish Industrial Policy*, Dublin

the shadow price of labour parameter should be applied to the labour cost side in appraisals instead of to the benefits reflecting the fact that labour is a cost.

It is reasonable to apply the shadow price of labour not just to labour costs incurred at the outset of the project but also to labour costs arising over the course of a project, where this is practicable.