

The Public Spending Code:

E. Technical References

Shadow Price of Public Funds – 130%

E-04

Summary:

This document sets out the current parameter value for the shadow price of public funds. It explains the rationale for making an adjustment to cashflows in economic appraisals to reflect the distortions caused by taxation. It outlines the considerations taken into account in revising this parameter and how it should be used to increase costs and, in some cases, the benefits in an economic appraisal.

Overview

Taxation is an important source of revenue for Governments. However, taxation also leads to distortions by altering the incentives faced by consumers, workers and companies, and serving to reduce the overall efficiency of activity throughout an economy. In order to take account of the distortionary impact of taxation, a shadow price must be applied reflecting the fact that taxation is a key source of funding for expenditure on projects and programmes. In other words, because Governments fund projects by raising taxes, the negative impact on the economy of this tax raising activity must be reflected in the cost appraisal of a project. Typically, the costs of a project are of course offset on the benefit side of the appraisal by valuations of impacts e.g. environmental, time savings, increased output, positive externalities etc

The value of the shadow price of public funds is set at 130% to take account of the deadweight effects of taxation. Therefore, relevant exchequer cash flows should be adjusted by a factor 1.3. This new value updates previous central and sectoral guidance which specified values in the range 125% to 150%.

It is important to note that in setting the new rate, the policy objective is to set a reasonable reference parameter to ensure consistency and comparability in the conduct of economic appraisals. While there will always be difficulties in precisely estimating the overall shadow price of public funds throughout the economy given the variety of influencing factors, it is important that the core economic principle of applying a reasonable shadow value is accepted and applied. The revised figure takes earlier published estimates as read and updates the parameter by taking into account the broad changes in wider economic conditions which influence the shadow price of public funds e.g. changes in taxation and labour market environments.

Description

Taxation gives rise to economic distortions by altering the incentives facing economic agents, leading to changes in their behaviour and reduced economic activity. For this reason, it can be argued that the shadow price of public funds is greater than one. A premium must be attached to the nominal costs of the proposal in order to make private cash flows consistent with public cash flows and to account for the deadweight loss of taxation.

Methodology

Taking into account earlier estimates by Honohan¹ and following on from research commissioned by Forfás² for the enterprise sector as well as developments in tax rates, the tax burden and the labour market in the intervening years, it has been concluded that the revised shadow cost of public funds should be set at 130%. This is broadly consistent with international values. It is lower than the previous rate of 150% prescribed in the 1999 Working Rules on Cost Benefit Analysis but higher than the rate outlined in the model published by Forfás. It reflects some of the developments in recent years which imply a higher value (e.g. increased income tax rates) but the increase is tempered by other factors (e.g. broadening of the tax base). As taxation policy and labour market characteristics change, this parameter will be periodically reviewed, as with all the parameters.

Application

This parameter should be applied to the net Exchequer financial costs of a project in a CBA leading to an increase in values of 30%. In the case that some costs of individual projects will be borne by EU grant aid or private contributions, the net Exchequer cost should be reduced by the amount of their contribution.

¹ Honohan, P. (1998). *Key Issues of Benefit-cost Methodology for Irish Industrial Policy*, Economic and Social Research Institute, Dublin.

² Murphy, A., Walsh, B., Barry, F., (2003), *The economic appraisal system for projects seeking support from the industrial development agencies*, Forfás Dublin.

In certain cases, it may also be appropriate to adjust benefits by the same percentage. This applies to taxation flows on the benefits side. For example, net additional flows in income taxes directly and solely attributable to a project/proposal would be increased by 30% to reflect the shadow price of public funds.

Project appraisers may also include an illustrative scenario based on a shadow price of public funds of 100% to indicate the impact of the shadow price of public funds on the results of the appraisal.