

of Government objectives and the nature of Government programs, I do not believe that the proper approach at this time is to attempt to fix a single discount rate to be applied uniformly over the entire Government. Nonetheless, I believe it is possible to identify a conceptual basis for selecting public discount rates.

The public investment discount rate should be based on private returns foregone in consumption and investment and should be adjusted for different methods for treating risk and inflation between private and public sectors. I believe this is preferable to the alternative of adopting the rate of return on private investment foregone alone because Government funds are drawn from both consumption and investment. It is preferable to the social objective approach because the alternative of directly expressing social objectives in cost and benefit estimates will produce greater clarity about such objectives and permit consistency between private and public investment policy. It is generally preferable to the revenue-expenditure concept because the Government's objectives are usually broader than those of a private firm, since the Government must deal with public goods, the redistribution of income, and the broad conditions for efficiency in the economy which are not inherent in corporate decisions. Until however, the rate implied by the preferred conceptual basis can be measured accurately and on a continuing basis, we must be pragmatic and use acceptable substitutes for what the "real" rate must be.

EVALUATING PUBLIC INVESTMENTS COMPARABLE TO PRIVATE ACTIVITIES

It is useful given our uncertainty about the appropriate rate and the measurement of risk to approach the problem by distinguishing two classes of Government programs, those that supply goods or services similar to goods and services being sold in private markets, and those that have objectives that are peculiar to a government. Obviously, such a distinction must deal with gradations and not completely discrete categories. Examples of the first type of program might be those dealing with the administration of Federally-owned mineral or timber resources, or with the sale of uranium enrichment services from the Federally-owned Gaseous Diffusion Plants. The primary example of the second type of program is, of course, to be found in the Defense Department, but our poverty programs are also heavily weighted in this direction.

Where Government programs can be identified with a particular sector of the economy and where the programs will probably displace private investment in that sector, I would argue that the private rate of return on analogous kinds of investments over the given sector is the appropriate rate for the evaluation of public investment inclusive of allowance for risk. The sector should be defined broadly enough to average out the effects on rates of return of specific market imperfections that would be affected by the proposed Government program and that may be a principal reason for it. In this way we can take advantage of the judgment of the private market of a rate inclusive of an appropriate degree of risk.

EVALUATING PUBLIC INVESTMENTS PECULIAR TO THE PUBLIC SECTOR

The second class of Government programs is quite different however, since there is no private analogue nor is there likely to be direct displacement of investment in a single sector of the economy, nor is it generally possible to express the costs and benefits completely in dollar terms. The significance of the last point has been discussed above.

For such programs that constitute, I believe, the preponderance of Government activities, the appropriate rate at which to discount future costs is a rate that reflects the opportunity cost of Government spending over the economy as a whole.

The Treatment of Risk.—However, it is necessary to consider how to handle risk for such programs. The opportunity cost as inferred from either the rate of return on productive investment or the weighted average of returns from deferred consumption and from productive investments foregone, will reflect some allowance for risk. This occurs because most people when offered a 50-50 chance of getting either zero or \$1,000 would be willing to pay less than \$500 for the opportunity. That is to say they try to avoid risk and require compensation for undertaking it. While I certainly do not wish to argue that Government programs are riskless—on the contrary they are often subject to considerable risk—I believe that better decisions are likely to result from considering the risks explicitly by adjusting the expected costs and benefits than by attempting