

Apart from the fact that specific non-market objectives introduced into the determination of the rate under this third concept can be questioned (how much current income should we sacrifice for increasing the real income of future generations whose average per capita income is likely to be several times our own?), it also raises questions of inconsistency between the private and public sectors and the propriety of expressing the various objectives through the discount rate for Government investment programs as opposed to other policy variables.

As an alternative to applying a special discount rate, specific social objectives in particular sectors can be reflected by adjusting benefits appropriately, or by first selecting the size of budgets to be allocated for each public purpose and then evaluating each project to determine allocation of the limited budget. Social purposes, such as growth and investment for future generations could be incorporated in criteria that cover both the private and public sectors though they need not be as broad as policy directed at the overall level of economic activity. For example, the investment tax credit, by stimulating private investment would promote consistent growth in both public and private sectors.

Adherents of this approach, nonetheless, argue that on pragmatic grounds the Government should go as far as it can in achieving social objectives through broad policies, such as monetary and fiscal policy, but if constraints on its freedom of action prevent it from imposing a suitable investment policy over the entire economy as a whole, or over large sectors of it, it should accept the second best solution of adjusting selective or all public investment so far as possible to achieve proper social objectives.

THE DISCOUNT RATE AS DETERMINED BY REVENUE-EXPENDITURE EFFECTS OF GOVERNMENT BORROWING

A fourth rationale for the determination of the rate of return which is quite distinct from each of the others, is the notion of basing the discount rate on the Government cost of borrowing. One version of this concept, discussed by the helpful recent General Accounting Office survey, is the cost of Government borrowing adjusted for taxes foregone. This concept is neither a private opportunity cost concept nor a social cost concept. Rather it expresses the combined impact on governmental expenditures (in terms of interest outlays) and revenues (in terms of taxes foregone) of Government borrowing. This expenditure-revenue concept implicitly views the Government as though it were an organization attempting to maximize its net worth, as a profit-maximizing private firm does.

THE APPLICATION OF DISCOUNTING TO PUBLIC INVESTMENT DECISIONS

Having reviewed several alternative rationales for the determination of a discount rate, I should next like to look somewhat more closely at the way in which discounting fits into the evaluation of investment programs before discussing the determination of an appropriate rate.

In view of the complexity of the problem, it may be appropriate to start with a fairly direct approach and suggest that decision makers faced with the need to choose among alternative streams of net benefits over time, should begin by looking at the benefits and costs, year-by-year. In a simple world where the decision-maker was faced with unlimited options to borrow or lend at a fixed interest rate, this would be unnecessary, but in the world in which decisions are actually made the ability of the Government to lend or borrow is limited, the rates are variable over time, and agency budgets cannot be freely shifted from one year to the next. Under these circumstances the year-by-year picture of cost and benefit flows may contain highly useful information to a decision maker. Such a benefit was foreseen from the initiation of the multi-year Program and Financial Plan in the PPB System. Year-by-year comparisons, however, are too complex to be used except where the number of alternatives is relatively few. Where comparisons must be made among a large number of alternatives, it is necessary to resort to some form of aggregative measure. Moreover, even where the number of alternatives is small, such comparisons do not of themselves reflect the fact that dollars now have different and greater value than dollars in the future.

The search for relatively simple measures by which to compare alternative benefits and costs over time has, unfortunately, produced a wide variety of such measures, many of which have only simplicity to recommend them. The recent General Accounting Office survey documents this point. Improvements of current practices are both possible and desirable, but because of the complexity