

Now, we can explore the effect of changes in the nature of the job on the cost of doing it, but basically we are dealing with dollar measures on the cost side and some nondollar specification of the nature of the job and its output on the benefit side. I will return to the distinction between those two types of analyses in the consideration of discounting.

Let me now turn from the problem of public expenditures generally to the problem of public investment and discounting. The distinction is based on the explicit consideration of time. Public investments, like other investments, typically have an early net outlay, followed by a later net inflow of resources. In order to determine whether an investment is worthwhile, it is necessary to compare the early net outlay with the later return. This means comparing dollar quantities received at different points in time.

Economics has developed a widely accepted rationale for such comparisons. It is based on the balance between the existence of a preference by consumers for present consumption over future consumption—the chicken in the hand is worth more than the one in the bush. It is also based on the productive possibilities open to us by investment in physical capital assets that increase the efficiency of production.

Given these two factors—time preference and production possibilities—and given the ability of consumers to alter the time stream of their consumption by borrowing and lending, a single rate of interest would occur if there were no uncertainty; consumers and entrepreneurs would both adjust their activities to that rate of interest. In a world where there are no barriers among markets and no risk or uncertainty, the Government, too, should use that single rate of interest as its discount rate in choosing its investment programs. To depart from the rate would reduce the total productivity of the economy, including the Government goods and services.

Chairman PROXMIER (now presiding). Will you repeat that statement? Go back one sentence before that, please.

Mr. HOFFMAN. Surely.

The reason for the application of the single discount rate in this simple model of the economy, is that if the Government departed from this rate, it would, in effect, be reducing the total value of goods and services available to the economy, including Government goods and services.

The reason is that the application of a discount rate higher than the interest rate would cause the Government to ignore investments that had a larger return than that available from opportunities in the private sector, thus diverting resources into lower payoff areas. The application of a discount rate lower than this interest rate would result in the opposite effect; there would be overinvestment in Government programs because of the diversion of resources from higher return private investment.

Problems arise, however, as a result of departures from this oversimplified model. As a result of barriers to entry, the administrative costs of borrowing and lending, and imperfections in information, markets are not perfect and funds do not flow among them without friction. Even more important is the fact that risk and uncertainty are an inherent aspect of our economic activity. When we take into account these departures from the simplest model, we find that a number of dif-