

estimated to range from 10 to 20 percent before taxes. The opportunity cost of consumers is at least equal to the rate that they can receive on riskless Government bonds, currently estimated to be about 5½ percent. Judged by interest rates consumers are willing to pay, rather than forego current consumption, the opportunity cost of capital to consumers is considerably higher, ranging upwards from 7 percent.

An interest rate reflecting the opportunity cost of capital will result in the most efficient allocation of resources in the public and private sectors of the Nation's economy. An interest rate which is below this level will divert resources from the private to the public sector and result in the misallocation and wasteful use of resources. Conversely, the use of an interest rate in excess of the opportunity cost of capital in the private sector will discourage public investments and encourage private investments and consumption, resulting in the misallocation of resources.

The use of the opportunity cost concept will stimulate both public and private investments and economic growth, which will increase the incomes of future generations. Consequently, the opportunity cost of capital in the private sector is the most relevant interest rate for use in evaluating public investments.

GOVERNMENT ACCOUNTING OFFICE (GAO) COST OF TREASURY BORROWING

The GAO in a hearing before this Committee on January 29, 1968, calculated the cost of Government bonds to be approximately 7½ percent. The GAO essentially computed the cost of Government borrowing by modifying the average coupon rate and yield rate on long-term Treasury bonds by making an allowance for taxes foregone, corporate and personal, as a result of Government borrowing. Although the GAO is to be commended for its efforts to calculate a meaningful interest rate, it has certain inherent weaknesses. For example, as noted herein, the coupon rate on long-term Government bonds has no relevancy and I question its use by the GAO in calculating an average rate of interest. Moreover, if an adjustment is made for corporate and personal taxes foregone, similar adjustments must be made for property and sales taxes.

The calculation made by GAO does not accept the concept of opportunity cost or the yield on long-term Government bonds. Surprisingly, it results in an interest rate for Government borrowing which closely approximates the average opportunity cost of capital in the private sector. The GAO formula for calculating the cost of Government borrowing requires numerous technical adjustments and is inferior in principle to the concept of the opportunity cost of capital.

RECOMMENDED RATE OF INTEREST FOR USE IN EVALUATING PUBLIC INVESTMENTS

As previously noted, I consider the opportunity cost of capital in the private sector results in the most efficient allocation of resources between the public and private sectors of the economy as well as between the present and future generations. I have not had the opportunity to calculate the opportunity cost of capital in all relevant sectors of the private economy. However, in the interest of being conservative, the minimum meaningful opportunity cost in the private sector should not be less than 5.5 percent, based on returns consumers (taxpayers) can obtain from riskless Government securities. It is also clear that the return to private investors will conservatively average about 12 percent. It is suggested that the relevant interest rate for use in evaluating public investments is in the range of 8 to 10 percent.

Recognizing that historically public investments, particularly water and land resource projects, have employed interest rates that were much too low, the interim use of an interest rate of 5.5 percent, with a subsequent upward adjustment, is recommended. This will allow a period of time for the various Government agencies to adjust and make the transition to a more relevant, but higher, discount rate. Undue delay in adopting a relevant interest rate would only result in the wasteful use of the Nation's limited resources.

NEED FOR FURTHER STUDY

The fact that various Governmental agencies use different interest rates for evaluating public investments clearly indicates the need not only for further study but the need of the Executive Department to provide the necessary leadership in this area. Although the proposal of the Water Resources Council is a step in the right direction, as noted herein, it obviously will not result in the most efficient