The outstanding example of this inability is contained in the DOT statute itself. Section 7(a) instructs the Secretary to "develop and * * * revise standards and criteria consistent with national transportation policies, for the formulation and economic evaluation of all proposals for the investment of Federal funds in transportation facilities or equipment * * *", but this instruction is subject to two major qualifications. Section 7(a) itself contains a list of six exceptions, including very important ones with respect to grant-in-aid and water resource projects. This water resource exception is at least partly balanced by provision for membership of the Department of Transportation in the Water Resources Council, but it nevertheless leaves discounting and other investment criteria with respect to water transportation in a different environment than comparable criteria for government investment in other modes of transport.

In addition, as I will later point out in more detail, the application of uniform rules is rendered difficult by the division of investment responsibility for transport facilities such as highways and certain airports between Federal and state, or between Federal and local government agencies, and by divisions both between modes and within many of the modes between private ownership and investment (as with railroads, or airlines, or trucking concerns) and public ownership and investment (as with highways and major airports).

The conceptually ideal situation, of course, would be to begin with a unified approach to definitions of benefits, costs, and appropriate rates of discount to be applied to future values. This ideal situation would have special advantages in the field of transportation, due to the degree of substitutability of demand for important transportation modes—such as the demand for freight movement by rail, by barge, or by motor truck—as well as the possibility of tradeoffs between public investment in infrastructure and safety facilities and private investment in operating equipment. A standard discount criterion could even be useful in determining the most economical surfacing to be used on a particular highway. This conceptually ideal situation must, of course, be visualized in terms of relating the appropriate discount rate to the development of the entire economy. The very existence of net new investment is incompatible with static assumptions about the economy; and, in particular, the existence of such net new investment in new forms of economic activity is likely to be accompanied by steadily increasing productivity.

In the rest of my statement, I will give some examples of this relationship of discount criteria to other dynamic investment criteria as well as of some of the problems created by the mixtures of competition and complementarity prevalent among modes of transportation with different types of ownership and control.

The Bureau of Public Roads might be expected to have the most important decisions with respect to appropriate discount rates, because its annual investment budget greatly exceeds that of all the other model agencies in our department combined. But the Bureau's investment funds are derived from the Highway Trust Fund, so that the inflow into the highway investment pool is immediately determined by the receipts of specified taxes and not by a showing with respect to discounted costs and benefits. Moreover, the great majority of the Bureau's investment expenditures are distributed to individual states to be used according to set formulas along with state highway money. Neither the state-by-state distribution nor the percentage Federal share in each type of highway directly reflects costs, benefits, or discounts of future values to arrive at present values. State highway departments use discount rates ranging from zero percent to eight percent. The Federal Highway Administration has also agreed to use standard rates for sensitivity analysis as provided by the Bureau of of the Budget. These standard rates are generally 7.5 percent, 10 percent, and 12.5 percent, as Mr. Hoffman indicated earlier.

The Federal Aviation Administration has based its discounting on Bureau of the Budget Circulars A–54 and A–76, and accordingly has used interest rates which essentially reflect the cost of Government borrowing as reported by the Treasury Department. Over the past few years these rates have risen from 4.2 percent to 5.5 percent. Some recent sensitivity studies have used the same rates already mentioned for the Bureau of Public Roads: i.e., 7.5, 10, and 12.5 percent.

Although the Urban Mass Transportation Administration has been active in providing capital grants for local transportation purposes, it has not engaged in direct investment activities. It has not established a discounting policy. Nor has discounting been utilized by either the Federal Railroad Administration or