

They will discuss with us the use of discounting in their agencies and their suggestions for the improvement of discounting and interest rate policy throughout the Federal Government?

Mr. Enthoven, you may proceed.

**STATEMENT OF ALAIN ENTHOVEN, ASSISTANT SECRETARY OF
DEFENSE, OFFICE OF SYSTEMS ANALYSIS**

Mr. ENTHOVEN. Thank you very much, Mr. Chairman. I very much appreciate the opportunity to take part in these hearings, which I think are performing a very valuable public service.

**DISCOUNTING PROCEDURES AND INTEREST RATE POLICY IN FEDERAL
DEPARTMENTS AND AGENCIES**

In the Department of Defense we now use analyses of military effectiveness in relation to cost ("cost-effectiveness analysis") regularly as one of the factors considered in reaching program decisions. However, we emphasize analysis as an aid to judgment and not as a substitute for it. Thus, discounting calculations, when they are used, are but one of the factors to be judged in the total context of decision.

In our cost-effectiveness analysis we use discounting—or accumulated interest charges as I now prefer to look at it—selectively as an analytical tool. In some cases, the time profiles of expenditures of the alternatives under consideration are not significantly different from each other. In such cases we don't include interest charges; rather, we focus attention on the significant differences that do exist among the alternatives. In other cases, however, the time profiles of expenditures do differ significantly. In such cases, we do introduce cumulative interest charges in comparing costs and in designing "equal cost" alternatives.

I have found that the easiest way to explain the commonsense of discounting is to point out that it is equivalent to adding a cumulative interest charge to the cost of Government programs. When comparing two systems, each of which will provide a desired level of military effectiveness, we believe that the system which involves extra investment today should produce enough savings later on to pay off both principal and interest. Discounting future costs back to present values is frequently misunderstood and is sometimes erroneously used in such a way as to make the cost of particular programs look smaller. By showing how interest charges add up over time, the basic issue is much more easily grasped.

As for the question of what interest rate to use, available evidence suggests that the opportunity cost of resources used by the Government in our economy is in the 5–10 percent range, though I realize that the conceptual and empirical difficulties involved in coming up with such estimates are very great.

In my judgment, 10 percent is a sensible choice for us in the Department of Defense, first because it is close to the best available estimates of the opportunity cost of capital and, second, because our investments in new weapons are both very large and subject to great technical and strategic risks.

The fact that the before tax yields on many private investments are