

community, which releases the resources for the undertaking. The taxes lead to a reduction of consumption by households, to a decline in investment, or both. The social cost of the capital raised from foregone investment is clear: the investments would have yielded a certain rate of return to the community which would have increased the future flow of real national income. The social cost, therefore, is equal to the foregone rate of return on private investments.

To estimate the cost of funds which would have been spent for consumption, we must turn to the saving and borrowing behavior of households. Each individual has certain preferences about the allocation of his expenditures over time, more particularly, the allocation between present and future consumption. If he postpones consumption, he earns interest on the resultant saving; if he pays outstanding debts he reduces his interest payments accordingly. A rational consumer will allocate his expenditures over time in such manner that the rate at which he is willing to give up present consumption for the income stream made possible by the resultant increase of his saving will be equal to the interest rate which he faces in making this choice. Thus, a saver will push his consumption to the point where the satisfaction of a future income stream equal to the interest rate is exactly equal to the satisfaction he derives from the marginal dollar of consumption. Similarly, a borrower will derive satisfaction from his marginal dollar of consumption equal to the stream of interest payments he must make on this marginal expenditure dollar which he has borrowed.*

Figure 13 illustrates this optimum condition of consumer behavior. It shows the consumer's indifference map between present consumption expenditures and increases of his future annual consumption streams.

If the consumer's income in the present period is represented by point *a* (Figure 13-a), then he can reach any of the points on the two line segments, *ad* and *ae*, which start at that point. Moving to

*This formulation does not detail the intertemporal optimum conditions between all present and future periods and, hence, cannot describe the entire future time profile of an individual's consumption. It is sufficiently detailed for our limited purposes, however, and we seek to keep our assumptions as simple as possible. The same reasoning can be applied to the rate of substitution of consumption expenditures between any two periods, provided the entire structure of future interest rates is also known for the individual.