Professor Kenneth J. Arrow

1972 Nobel Laureate in Economic Sciences

Professor Kenneth J. Arrow was born in New York City in 1921, graduated from the City College of New York in 1940, served in the United States Air Force as a weather officer from 1942 to 1946, and received his Ph.D. in Economics from Columbia University in 1951. His appointments include Research Associate at the Cowles Commission (now Foundation) in Economic Research (1947-9) during an extraordinary period, with such colleagues as Jacob Marschak, Tjalling Koopmans, Leonid Hurwicz, Lawrence Klein, and Franco Modigliani, faculty positions at the University of Chicago, Stanford University (most of his career), and Harvard University, and long-time consultant at the RAND Corporation.

His has published work on a variety of topics in economics and some outside. The latter include studies of the optimal use of wind forecasts for flight planning and of the foundations of sequential analysis of statistical data. The former include work on social choice, the use of securities for risk-bearing, general equilibrium theory, the economics of information, with special reference to asymmetric information, inventories, economic growth and its measurement, medical economics, and the economics of innovation.

Together with John R. Hicks, Professor Arrow was awarded the Nobel Memorial Prize in Economic Sciences in 1972 "for their pioneering contributions to general economic equilibrium theory and welfare theory". He has also received a number of honors, including the John Bates Clark medal of the American Economic Association, and the von Neuman Prize of the Institute for Operations Research and Management Science, as well as 25 honorary degrees. He has also been president of a number of learned societies and member of several honorary societies.

Among his students have been John Harsanyi, A. Michael Spence, Eric Maskin, and Roger Myerson, who were later awarded the Nobel Memorial Prize in Economic Sciences.

Lecture topic: *Economic Analysis and Social Obligation*

A major question of government policy is the extent to which it should intervene in the workings of markets. There is a general theoretical proposition, which also conforms to empirical experience, that, under competitive conditions, market outcomes are efficient in a certain precise sense. It follows that the government should intervene when markets fail to operate properly, that is, when individuals benefit or impose costs on each other in ways that are not mediated through the market (e.g., pollution). An additional reason for government intervention, not as widely accepted, is to make the income distribution more equal than the market outcome. But in that case the redistribution should interfere with consumers' choice as little as possible, which means that the redistribution should take the form of money transfers (taxes and payments).

Economists typically argue, then, that externalities be recognized by taxes which are a kind of substitute for prices and redistribution by money payments.

In fact, though, there are all sorts of felt social obligations that are not encompassed by this simple proposition. First of all, there are the obligations of parents to children (the obligations of children to parents are fading), which have long been recognized in law. Second, there are the collective obligations of the present generation to the indefinite future, displayed historically by wars in defense of a country and by constitutions and other legislation and faced currently in concerns about exhaustible resources and climate change. Third, we find that, by now, most government expenditures even in the United States are for education, retirement, and health, goods which have very few externalities as currently understood.