

THE THEORY OF CHOICE AND THE CONSTANCY OF ECONOMIC LAWS

SUMMARY

Introduction, 125. — I. The theory of consumer's choice, 126. — II. Four qualifying postulates, 128. — III. The constancy of economic laws, 133. — IV. Determinateness of consumer equilibrium, 134. — V. Conclusion, 138.

The first attempts of mathematical economists, such as Walras and Jevons, to introduce mathematical models for explaining consumer's behavior met with overwhelming criticism concerning the legitimacy of forcing human nature into the rigid frame of a mathematical structure. Later on, with the work of Edgeworth and Pareto, such criticism was partially met by discarding the concept of a measurable utility as a necessary element of a coherent theory of demand and by substituting the theory of choice in place of the old utility theory.

As the theory of choice was further improved, the controversy over the justification of a mathematical formulation of consumer's behavior, at least for the purposes of static theory, slowly faded away. In the meantime, modern mathematical economists carried the theory of choice to such a level that apparently very little could still be added to refine it further.¹ Today, it seems that even the nonmathematical economists no longer question the results of this chapter of mathematical economics, and that the conclusion that the law of demand is a uniquely defined relationship between prices and quantities is a soundly enthroned economic law.

The adequacy of the mathematical instrument for a production theory was never challenged by the first critics of mathematical economics; for it was thought that since production consists of a series of physical and chemical processes, to analyze it mathematically meant simply to extend further the domain of natural science already shaped for such an approach. But while the theory of choice was gaining the acceptance of an increasing number of economists, the mathematical economists began, paradoxical as this may seem, to be apprehensive of previously unforeseen difficulties connected with the mathematical theory of production, such as defining the factors of production in a proper way, finding a unit measure for entrepreneurship, etc.

1. For a complete and very instructive presentation of the present status of the theory of choice, see Paul Anthony Samuelson, *Foundations of Economic Analysis*, Harvard University Press, 1947, pp. 90ff.