Mathematical economics in Vienna between the Wars

Isao Mutoh

National Defense Academy, School of Humanities and Social Sciences, Department of Public Policy, 1-10-20, Hashirimizu, Yokosuka-shi, Kanagawa 239-8686, Japan

Abstract. Wald was the first who solved the existence problem in economics. His paper should be regarded as a starting point of the axiomatization in economics. The movement toward an axiomatization in economics took place only in Vienna. We must not dismiss the intellectual backgrounds in Vienna, which could be classified under the following headings; (a) the research activities in economics, (b) Hilbert's philosophy on the foundations of mathematics, (c) the Vienna Circle's philosophy of science, and (d) the development of convex analysis. In this paper, we shall examine how the interplay of these factors stimulated Wald to the existence proof.

Key words: Abraham Wald, existence proof, the Vienna Circle, Hilbert's formalism, convex analysis