Markets, Uncertainty and Decision Making

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E.F.M. Wubben: *Markets, Uncertainty and Decision-making: A History of the Introduction of Uncertainty into Economics*, ed. Tinbergen Institute Research Series, No 55, 1993, ISBN: 90-5170-225-6, pp. 274.

What are the causes and effects of uncertainty in decision-making? To what extent and how must economists incorporate the existence of uncertainty, ignorance and errors into the corpus of economics? These are some questions which economists have tried to answer in our century. Wubben's aim is to focus on the most relevant answers to these questions as they are posed in various writings in a number of schools of economic thought, or styles of approach as Wubben prefers to call them (p.11).

The main argument of Wubben's book is that economic uncertainty is an issue which must be incorporated into economic scientific thought if "economics is to become more realistic" (p. 8). In order to prove the significance of such a claim Wubben proceeds to an historical overview and evaluation of the most important theories on the subject from the time of Knight's publication of *Risk, Uncertainty and Profit*, until the present days.

The book consists of seven chapters which correspond to the author's classification of the various modern schools of economic thought. Wubben's approach in evaluating the various arguments and theories on the influence of uncertainty in decision-making is embedded in a philosophical and methodological framework. This characteristic element in Wubben's writing is related to the majority of authors presented in the book as he wants also to elicit the consistency of the scientists involved.

In the first chapter Wubben examines the notion of uncertainty and its effects on decision-making and substantiates his objective to examine the issue according to the distinctive approaches from various schools or styles of economic theorising. Thus, Wubben's book fills a gap in the history of economic thought, and it presents to the economists a taxonomy of the various positions regarding the issue of uncertainty in decision making.

In the second chapter he briefly presents the ideas of Haines and Hawley with regard to the risk-taking function of entrepreneurship. Then he presents the dynamic theories of profit as developed by J.B. Clark, and Schumpeter and justifies why "Schumpeter prepared the ground for Knight" (p.21). If the author's scope was to present in detail "Uncertainty before Knight" he ought to cite the views on the subject of Hamilton and Mangoldt which have strong similarity with those developed by Knight (see Karayiannis, 1992, pp.80-9; Hennings, 1980, pp. 663-4). However, his aim is to concentrate mainly on the analysis of risk and uncertainty in our century after Knight's work. Thus, he presents the two major trends in the interwar period following the introduction of uncertainty in neoclassical economics: the one that relates uncertainty with profit theory (Lavington, Hicks) and the other, "the gradual change in techniques, which itself was stimulated by a change in the probability theory used, facilitated the straightforward modeling of economic activities" (p. 54) (i.e. Hart). In completing Knight's understanding of uncertainty

Wubben also expose Knight's methodological orientation and presents the Hutchison-Knight debate.

In the third chapter Wubben seems to attribute the rejection of the Knightian uncertainty in the mainstream postwar economics primarily to the over-mathematisation of economics. The new researches "on individual choice and allocative market equilibrium under uncertainty" (p.55) was that of the expected utility model and the Arrow-Debreu state-preference approach. Wubben related those two new approaches to the subject of uncertainty in order to show to what extent the link of uncertainty and innovative activity became "weaker and weaker" (p. 77). However, Wubben neglects both Stigum (1969) on the subject of uncertainty under the subjective possibility distribution and also the treatment of uncertainty by Lange (1945, ch. VI) which would reinforce his conclusion that "changes in mainstream economic thought resulted .... in the rejection of the real significance for economics of the problem of the agent's uncertainty" (p. 248).

The attempts of the neo-Austrians, notably von Mises, Hayek, Kirzner, Lachmann, O'Driscoll and Rizzo, to develop theories in which the element of uncertainty is incorporated as an enabling and pervasive aspect of the economic process is the subject of Wubben's fourth chapter. His aims are to offer answers to the questions: how has uncertainty been introduced into neo-Austrian economics and what are the consequent implications for decision-making (p. 122). Wubben in answering these questions begins with an exposition of the a prioristic methodology of von Mises and the treatment of equilibrium by Hayek. Especially, here the work profits from Wubben's outstanding ability to relate arguments and ideas with the methodological viewpoints of the particular authors [for example von Hayek's equilibrium process and his methodological orientation (pp. 93-7)]. Furthermore, he spends some pages (pp. 87-90, 97-9) in scrutinising the socialism-capitalism debate of the 1930s in order to explicate how coordination and uncertainty are incorporated differently in those two ideal systems. In the coming pages Wubben presents the more direct attempts of Kirzner to relate entrepreneurship with uncertainty in a world of error and ignorance. The alertness of the entrepreneur, according to Kirzner, is the basic function by which ignorance and errors are diminished. Lachmann's expectation analysis and O'Driscoll and Rizzo "genuine uncertainty" in relation to time, are the main subjects studied in the rest of the fourth chapter.

The embodiment of uncertainty and expectation in macro-economic analysis achieved by Keynes and the post-Keynesian economists is the central subject in Wubben's fifth chapter. In this chapter firstly the author analyses Keynes attitude toward the influence of uncertainty and expectation in the deduction of macroeconomic aggregates such as investment, money demand, etc. Wubben shows the extent to which Keynes "had a vague and imprecise conception of uncertainty" (p. 193) and also draws the traces of Keynes attitude toward uncertainty on his philosophical underpinnings (pp. 186). In the second part of the chapter Hick's treatment of uncertainty and Shackle's innovative notions such as potential surprise, focus gain-loss, etc. are accurately presented. In this context Wubben could have presented Shackle's diagrams (1949, pp. 21-2, 30) for decision making in terms of focus gain and loss and the deduction of the counter-lines of agents preferences in order to present to the reader in more formal style Shackle's theory of decision making in the state of imperfect knowledge. Also he could present here Keirstead's treatment of particular and general expectations, subjective-objective uncertainty (1953), which draws much upon Knight's and Shackle's ideas and arguments. However, these omissions are minor qualifications as the author faced a huge literature from which he selected the most representative and influential writings in order to facilitate a concise analysis of each of them. In the remainder of the chapter the three different approaches within post-Keynesianism, drawing respectively on Shackle, on Sraffa and on Robinson and Kalecki are presented by Wubben.

In his last substantial chapter Wubben "discusses uncertainty from the perspective of this currently important approach (i.e. game theory A.K.) to the problem of choice under uncertainty" (p. 196) and concentrates on such questions as: What forms of games have been developed to represent specific decision-making situations under uncertainty? Wubben meets his objectives by giving a mathematical and not an historical treatment of the arguments which have arisen in the game theory context. He successfully investigates here the various states of independent-interdependent decision-making and (non) cooperative -(non) coordination games. Discussions on subtopics as that of bounded rationality of Simon and the common knowledge assumption emerge within this framework and are treated effectively by the author.

In his conclusions Wubben uses a taxonomic presentation of the main ideas drawn by his analysis of the various schools of thought. This taxonomy is not irrelevant but summarises the possible avenues economists can take as they discuss uncertainty given some research-problem. They may realise that their views of markets, time, creativity, mathematics, entrepreneurship, optimality and stability are linked with their approach toward uncertainty. Therefore, Wubben is right when he concludes that the "economist is ill-advised to ignore uncertainty; he will sooner or later feel obliged to introduce the agent's uncertainty into his theories. It will be evident that uncertainty fundamentally differs from risk" (p. 247).

Wubben's book *Markets, Uncertainty and Decision Making* which is his PhD thesis at Erasmus University, for the Tinbergen Institute, is a remarkable sample of consistent survey and critical evaluation of the various modern theories of uncertainty. By using the variety of approaches developed in regard to the significance and consequences of uncertainty for decision-making in the present century, Wubben provides graduate students, economists and scholars of the history of economics with coherent material for further elaborations. Moreover, I think that scholars and students interested in the phenomenon of uncertainty and its incorporation in modern economic analysis will find Wubben's book informative and provocative.

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References

Hennings, K.H., 1980, "The Transition from Classical to Neoclassical Economic Theory: Hans von Mangoldt", *Kyklos*.

Karayiannis, A.D., 1992, "Rowland Hamilton's neglected contribution on risk, uncertainty and profit", in S. Todd Lowry (ed) *Perspectives on the History of Economic Thought*, Volume VIII: Contributions to the History of Economics, Aldershot, Elgar Publishing Ltd.

Keirstead, B.S., 1953, *An Essay in the Theory of Profits and Income Distribution*, Oxford. Basil Blackwell.

Lange, O., 1945, *Price Flexibility and Employment*, Bloomington. Cowles Commission Monographs, 1952.

Shackle, G.L.S., 1949, *Expectations in Economics*, ed. Cambridge, CUP.

Stigum, B. 1969. "Competitive Equilibria under Uncertainty", *Quarterly Journal of Economics*, November.