When Maurice Allais of France was awarded the 1988 Nobel Prize in Economics, many people were surprised. But his former student—Gerard Debreu, professor at the University of California at Berkeley, was already awarded the same prize in 1983, so that there is definitely a sense that justice is at last being done. In France, economists feel that Allais should have received this prize a long time ago.

Born in Paris in 1911, Professor Allais had a distinguished academic career, initially at the Ecole Polytechnique (the leading engineering school) and then at the Ecole Nationale Supérieure des Mines in Paris. It is not at all uncommon for older French economists to have first qualified as an engineer. Economics was not an undergraduate subject in France until the 1950s: until then it formed a part of post-graduate law courses in the universities or was an option in the engineering schools from which leaders of industry—public and private—emerged.

Maurice Allais began working in 1937 with the French National Board of Mines, first as mining engineer in Nantes, and later as director of that organization's economic research and information section. In 1944, he was appointed professor of economic analysis at the Ecole des Mines in Paris. This has always been his base, although he spent a few years at the Institute of International Studies in Geneva and directs research at the University of Paris X at Nanterre.

Professor Allais published, in 1943, during the German Occupation of France, a book entitled *In Search of Economic Discipline*. This was an admirable synthesis of microeconomic theory, covering individual choices, price formation, the workings of the market and the allocation of resources, and concepts of general equilibrium or optimum. Shortly after the War he brought out *Economy and Interest*. This is a study in the theory of capital. It evaluates the two approaches then current to the determination of interest rates—first as the price in the market with the supply of loanable funds and a demand for investment and, second, as the result of liquidity preference and a quantity of money in circulation.
The Economy and Interest volume also laid the foundations for a number of path-breaking works on monetary issues, from a restatement of the Quantity Theory of Money to an analysis of economic fluctuations and inflation. The unfortunate timing of these two important works — too close to the War — is one reason why Allais' work was not widely known or translated.

In the 1950s, he contributed to the opening up of a new area of research in economics on individual choice and risk-taking. Allais' work brought him into conflict with Arrow and Savage. What is known as the "Allais paradox" arose from his contention that part of the "rational" behaviour assumed in the others' work was contrary to observed reality. In this, he was a forerunner of later developments. Allais has always held that a good theory must be a useful "condensation" of actual experience. Econometric work accompanied his theoretical research since the 1950s.

In 1977, he published a study on Capital Taxation and Monetary Reform which contains radical suggestions for the replacement of income taxes with those on capital.

His work may seem abstract. But Maurice Allais' career illustrates that advanced theory can come to have practical applications. His work has had many applications, in particular on the criteria for decisions on public sector pricing and investment, and the economics of insurance, to name a few.

Professor Allais never ignored contemporary economic issues. He outlined in 1953 how the cost of extracting coal in certain places was greater than its average price. He contributed articles and opinions on a wide variety of topics. These were challenging and provocative, always inspired by his theoretical reflections, never aligned to a particular ideology. They showed the originality of his thought, but they were usually too far removed from immediate political realities to make a great impact on the general public.

Professor Allais was a gifted lecturer — his advanced courses attracted a hardcore of committed students. He made a major contribution to the updating of economics in France from the 1950s, leading work in mathematical economics particularly to world-leading levels. According to President Mitterand in his congratulatory remarks, Professor Allais "contributed to the advancement of mathematical economics and founded a new school". Many of Allais' intellectual "sons" and "grandsons" have held prominent positions. The most prominent include Pierre Massé, head of the Commissariat du Plan (until 1966) and well known international proponent of the methods of French planning. Marcel Boiteux, formerly president of Electricité de France and recently author of a government white paper on fiscal harmonisation for the European market of 1992, and Edmond Malinvaud, long-time director of the French National Statistical and Economic Research Organisation (INSEE), and professor at the College de France, were also his students. Dr. Malinvaud
says that the two qualities which come to mind in considering Allais' work are its originality and its precursory nature.

Professor Allais is shy and reserved, although sure of his own worth, a courageous and tenacious researcher, capable of working for many years in areas he is sure will prove fruitful. His work as one of the foremost theoreticians of his generation always commands respect. Professor Allais is delighted with this prize because, as he says, it will enable him to continue working (French public servants must normally retire at 68).

For the breadth and depth of his theoretical work, for laying solid foundations for the French school of economics and for his intellectual rigour, Maurice Allais richly deserved the Nobel prize. Many of his friends thought he should have received it a long time ago. As Paul Samuelson, a previous prizewinner, admitted, ... he would have, if his works had been written . . . in English!

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