ECONOMICS, FINANCE AND MANAGEMENT 2009

ANDREU MAS-COLELL AND HUGO SONNENSCHEIN

Economists Andreu Mas-Colell (Barcelona, 1944) and Hugo Sonnenschein (New York, 1940) share the BBVA Foundation Frontiers of Knowledge Award in Economics, Finance and Management for their work on extending the reach and applicability of general equilibrium analysis and for establishing the modern theory of aggregate demand. According to the jury’s citation, their work has helped achieve better models for the overall behavior of the economy, and particularly to interpret and empirically measure consumer behavior.

Hugo Sonnenschein is Professor of Economics and Adam Smith Distinguished Service Professor at the University of Chicago. Mas-Colell is Professor of Economics at Pompeu Fabra University in Barcelona as well as founder and Chairman of the Barcelona Graduate School of Economics. Their collaborative and convergent work has enabled economists to “address a much wider range of practical problems”, and has also “changed the way in which economics is taught all over the world”, in the opinion of the jury. Both Sonnenschein and Mas-Colell have been referents for generations of economists trained in the last few decades of the 20th century.

The contributions singled out by the award jury - the perfecting of general equilibrium theory and authorship of the modern theory of aggregate demand - explain economic phenomena that are counter intuitive, like the fact that a fall in prices does not always trigger an increase in demand.

General equilibrium theory provides a frame for analyzing how changes in one part of the economy, for instance tax increases, sudden commodity price fluctuations or new environmental regulations, are transmitted through the system triggering a chain of readjustments. Aggregate demand theory has helped explain why restrictions deriving from classical consumer theory on individual demand are not inherited at the aggregate level.

Mas-Colell and Sonnenschein, two microeconometric theorists, have modeled and elucidated fundamental aspects of economic behavior. This has given empirical economists a better understanding of the data they work with, providing them with new insights on empirical relations and important implications for economic policy. Their work, in the jury’s view, is an excellent example of how science progresses thanks to people engaged with similar problems sharing their ideas in a spirit of active collaboration.

The two men’s joint candidacy was presented by Professor Jordi Galí of the Centre de Recerca en Economia Internacional (CREI).

Two converging paths

“For me, this prize is worth even more because I can share it with Hugo Sonnenschein” remarked Mas-Colell on hearing of the award. “One of my first masters, and an economist of supreme analytical subtlety and elegance in his insights, perceptions and deductive work”. Sonnenschein returned the compliment: “I cannot say how honored I feel to be sharing this award with Andreu Mas-Colell, whom I worked with in Minnesota four decades ago and who remains a close and valued colleague. I see this prize above all as recognition for our theoretical contributions in the field of economic models”.

Among the results of Sonnenschein and Mas-Colell’s work is a pricing model based on the general equilibrium theory in wide use by today’s economists. This theory starts from the idea that “the value of a good to a given individual is determined by consumer preferences, technology and the distribution of wealth”, as Sonnenschein explains. All these elements interact in the same way water finds the same level in two interconnected containers. “The players involved generate a system of great mathematical complexity, and Andreu Mas-Colell and I have worked together to determine the exact nature of this complexity”.

Mas-Colell takes up the story. “It was Hugo who first posed the problem. Then others like me added our own contributions. These developments have shown the robustness of the theory that runs from Adam Smith down through generations of economists regarding the properties of what we call economic welfare. But they also reveal a series of shortcomings in its predictive or dynamic properties. Put another way, the line of work that Hugo began, and to which I have contributed, says that to make sturdy predictions about price structures and the dynamics of an economy, you need to start from a very precise knowledge of economic data”.

The aggregate demand theory is tied in closely with this last concept. “Much of economics until Paul Samuelson assumed that understanding the behavior of an individual would be enough to explain the behavior of the whole economy. But this happened to be untrue in the strongest sense. For instance, it might be assumed that when the price of a particular commodity falls consumers are going to buy more of it. But it may be that if prices are falling, wealth is falling too, which means demand will fall as well. This is obviously a simplification since, in fact, a vast number of similar variables are in play at the same time”, explained Sonnenschein.

In his view, the recent crisis and the current situation “are an opportunity – though certainly not a happy one - to examine what has happened and how we can stop it happening again. I feel a great concern for the difficulties so many people are facing. What is happening is very real and economists must learn from this painful lesson”.

Mas-Colell describes the sway exerted by academic economics in these times of crisis: “At a macroeconomic level, economic policy has plunged over the brink. This will end up being a severe recession, but nothing worse”. “As to Spain, I think the economy has an underlying strength that will carry us safely through the crisis”, he concludes.

International Jury

The jury deciding the Frontiers Award in the Economics, Finance and Management category was chaired by Peyton Young, James Meade Professor of Economics at the University of Oxford (United Kingdom), with the secretary’s role taken by Manuel Arellano, Professor of Econometrics in the Center for Monetary and Financial Studies (CEMFI) of Banco de España. Remaining members were José Manuel González-Páramo, member of the Executive Board of the European Central Bank (ECB); Hervé Moulin, George A. Peterkin Professor of Microeconomic Theory at Rice University (United States), and Guido Tabellini, Rector of Bocconi University (Italy).