LAUDATIO

I am very honoured to have been asked to deliver the laudatio on the occasion of the award by the Universidad Nacional de San Martin of an Honoris Causa Doctorate to Professor Jean-Marc Bonnisseau. First of all, let me notice that our laureated, from the time he obtained his PhD at University Paris 1-Pantheón Sorbonne (widely known as the Sorbonne University or, in these latitudes, as La Sorbona), has exercised an enormous influence during almost 30 years on those who have worked on issues related to the general equilibrium theory under imperfect competition, equilibrium models in financial markets, game theory, etc. In fact, several doctoral theses defended at that University are based on key outcomes established by Professor Bonnisseau in his more than 70 scientific publications.

Now, I am going to remark one of the most important contributions of professor Bonnisseau: the consideration of market imperfections or failures in general equilibrium contexts. As well known, market failures are very common. Competitive economies or perfect competition is a useful tool for entering in the economic analysis but you have to recall that the assumptions are rather strong. What is observed in the real world is that there are a lot of market imperfections like those of externalities, increasing returns, uncertainty, non-convex technologies, non price taking behavior, etc. The profession has treated this issues both in a partial equilibrium context and in a general equilibrium one. Dr. Bonnisseau emerges as one of the main theorists in the latter, even though he also made important contributions in partial equilibrium analysis.

I could speak at length for several topics but for reasons of time and of another nature that will become clearer later, I will concentrate in just one of them, namely, the contribution of Professor Bonnisseau to general equilibrium theory with non-convex technologies.

The presence of increasing returns to scale in production sectors such as electricity, railways, etc., and the failure of the competitive mechanism in such an environment are widely recognized in the economics literature. However, attempts to incorporate increasing returns, or to search for alternative mechanisms, in models with the generality of the Walrasian model are not covered -except for a few papers like those of our Rolf Mantel (1979) and Paulina Beato (1982)- until mid-eighties and Professor Bonnisseau was one of the leading theorist of that small but very active group. Actually, his research were mainly concerned with the following questions: (i) What are the appropriate behavior of the producer in the presence of increasing returns to scale and (ii) What are the assumptions that guarantee the existence of an equilibrium in such economies.

Regarding the first question, it is well known that profit maximization hypothesis is no longer applicable. Dr. Bonnisseau in several papers together with Professor Bernard Cornet (his former PhD advisor) looked for a general pricing rule and found axioms under which such a behavior exists. In addition to that, they also developed mathematically the marginal pricing rule in a general equilibrium context with several firms whose boundaries are non-smooth. Then, it was time to go ahead to the second question, and prove the existence of equilibria in those imperfectly competitive economies.

Depending on what we are interested in studying, the economy may be better represented by an infinite dimensional space of commodities. I know that it may sound strange to think about the existence of an “infinite quantity” of goods, but believe me it represents better the real world. I do not intend now to explain it, but it is so. Professor Bonnisseau also extended the equilibrium analysis under increasing returns (both, with general pricing rules and the marginal pricing one) to the infinite dimensional context. So far, these are the most complete results in the field.

At this point, maybe you in the audience think about that these works are a very abstract ones. On the one hand I agree but on the another hand let me tell you that this is, in addition, highly applicable to the situation that today we live in our country. I mean the pricing problem in electricity, water, gas, etc. What should the rates be and what should the subsidies policy of the government be. The research of Professor Bonnisseau which I cited before helps us to a better understanding of the above problems and, consequently, their solutions.

Let me finish my laudatio by mentioning that one of the proofs of the laureate´s research excellence is that he has published in several leading journals. Some of them are: Econometrica (the place where everyone wants to publish), Journal of Economic Theory (the one where every theorist wishes to publish), Economic Theory (same consideration), the Journal of Mathematical Economics (“The” place for mathematical economists), etc. But not only economic theory journals also Mathematical ones as those as Journal of Mathematical Analysis and Applications, Journal of Optimization Theory and Applications, Journal of Convex Analysis and Nonlinear Analysis: Theory, Methods & Applications among others. As a remark I would like to add that many of his publications are among the most cited in the profession.

There is a sentence commonly attributed to León Walras, the father of general equilibrium theory. It says, “there are two kinds of economists: those who prove what they say and those who don´t”. Professor Jean-Marc Bonnisseau belongs to the first group, and that is why, among other reasons, we honor him today with the Honoris Causa Doctorate

Thank you