Professor Malinvaud has done an excellent job not only in explaining the economist model but in defending it. I want to pick up on a few points where questions need to be raised about the standard economist model, although there has been a lot of work extending that model. Let me first explain that Professor Malinvaud has tried to put forward a positive model, that is to say a view of economic man that we can describe and from which we can derive a number of testable propositions. In Popper's terms it is a model that can be verified or rejected. In practice however, many of the empirical tests are not really tests of the economic model but tests of particular formulations of that model. When a particular formulation has been rejected, it is not a rejection of the overall economic model, but only of some of the extreme simplifications of that model the economists have sometimes used. Let us rather look at the essential ingredients of what we mean by economic man.

Essentially this man has well-defined preferences over outcomes; he is selfish; he is fully informed of the consequences of his actions and choices. In each context he does a calculus of the costs and benefits of the various options open to choice and he has infinite capability of making those calculations. In standard economic theory where the context implies a pure market economy, this model of the economic man leads to well-defined predictions, remarkably weak predictions however. This theory indeed puts a high emphasis on consistency more than on having very rich predictive powers of particular actions that individuals want to undertake.

This being said, what happens when you modify some assumptions, does it change the model in a very deep way or not? For instance, in the paper this morning, Professor Kolm, has asked some fair questions, like: what happens if you introduce some degree of altruism? I think a convincing case can be made that in many realms of behaviour you get better pre-
dictions than you do out of the model that presupposes selfishness. A second example where a change in assumptions leads to dramatic changes in theory arises when the hypothesis of perfect information is relaxed and replaced by the weaker hypothesis that individuals know that other individuals may find out information. This change has led to important research that are difficult to explain in simple terms, but imply that many propositions derived from standard economic theory fail to hold when perfect information is replaced by imperfect and asymmetric information across economic agents.

A third example Professor Malinvaud referred to is the analysis of bounded rationality, where individuals are not fully rational in their calculations but rather use rules of thumb. It is actually a very rich but in some ways not a fully satisfactory branch of modern economics. The interesting aspect is that an awful lot of the social institutions can only be explained in terms of bounded rationality. For instance, to give you an example, if you write down the efficient contracts between landlords and tenants in the sharing of risk, they are extremely complicated. The contracts that one sees in practice tend to be very simple such as: the landlord will get 50% of the profits.

It has been a real challenge to explain why the world is not as complicated as our theories say it ought to be. One explanation is that we have simple rules. If I propose to make a change in those rules, the other party infers that I must be doing it because I would gain from it. Since there is often a constant sum or zero sum view of the world, if I am gaining you must be losing, and therefore you reject my proposal. So, we see all over the place, persistence of rules that can only be described as consistent with bounded rationality.

There are actually three other areas that I think are in some ways still more important. One of these Professor Malinvaud has referred to and, in a way, has come up in a number of discussions over the last few days. It occurs where my behaviour depends on my sense of being treated fairly, and more generally when equity or fairness becomes an important determinant of behaviour. Now, fairness is a social construct, and its perception is related to a social context. There is a literature that has developed about how people, for instance on the exertion of effort in a job, will be affected by their perception of fairness, and about how employers, recognizing this, decide on the wages that they pay. However we form notions of fairness, they are in some sense different from notions of preferences. In particular, one try to change perceptions of fairness. This is an important consideration when you talk about the nature of the person, and it affects positive economics.
The second area of profound changes concerns the assumption of well-defined preferences. In fact we learn about ourselves over time and that learning process is a complicated one. An important case of the difficulties following from that concerns savings, for spending next year or for retirement. I am supposed to make a judgement about my preferences, the way economists put it, for consumption today, for consumption next year or still for my retirement. In other words, I have to decide the relative valuations I put on those consumptions. But, I may decide to save very little because I think that, in my old age, I will not enjoy life much. Then, now that I am coming to my old age, I may find out that in fact I was wrong. But I cannot go back and then learn it over again. So, whereas when I am buying two kinds of lettuces I can do experiments and find out what is my true preference, I do not know how I can find out my true preferences between consumption today and consumption in my retirement because I am only going to have one experiment. I do not even know how to think about that issue, that becomes very important and fundamental when we think about our social security system: we are supposed to be maximizing the well-being of people but we do not even know what our well-being is going to be. That problem is highlighted by some interesting experiments, which reveal that individuals do not have well-defined preferences: the preferences that they seem to reveal when asked depend on immaterial features of the question asked.

There is another aspect of this notion of well-defined preferences, namely that our sense of being is in some sense being created by the choices that we make, it is part of our identity. There are two points I want to make with respect to this sentence, the first is that we care not just about outcomes but about the fact that we have made choices. In the economist standard model, it makes no difference if I am given a bundle of goods x, or if I choose that bundle of goods, but for most of us it does make a difference: we do not like the idea that some authoritarian person has given us, even if they gave us the goods that we would have chosen; most of us do not like paternalism, the notion of consumer sovereignty has value on its own. So, our sense of self is not consistent with the standard economic model. But there is more to it than that: in a way our sense of who we are is affected by the choices that we make. We are signalling, not only to others but also to ourselves, what our identity is. Certainly, we can have different models in different spheres. But, even our economic choices are affecting our view of ourselves. Thus, some economic choices are imbued with another layer that affects our consciousness of ourselves.
There is still more to say on this point: increasingly in economics, there is a literature talking about how identity affects behaviour. That becomes important in economics because people can try to manipulate our identity, to deliberately affect how we think of ourselves, because that affects our choices. We can actually also try to affect our own choice of our identity. But since individuals are evolving and changing, our beings have some degree of autonomy outside ourselves, and the being that is being created by me is not entirely being created by me. Well all this, while a little bit abstract, is relevant because it does affect economic behaviour. It is a complexity that is relevant for describing many important aspects of behaviour.

Now Professor Malinvaud referred to a literature in economics that talks about time consistency: knowing that we are changing over time, we try to make decisions today that are consistent with our beliefs about what we will be like at some time in the future. In fact, we cannot constrain ourselves to be the person that we might want to be in the future. So, in the future we may not be that person. Can we try to constrain our future behaviour in some way or another? This is a serious and relevant question since there are indeed good examples of such self-imposed constraints, as some alcoholics know.

Another point has to do with the section that Professor Malinvaud skipped in his oral presentation, namely the behaviour of firms, which is indeed an aspect of a larger problem, that of collective decisions in organizations. There is a sense in which individuals often do not behave rationally in these social contexts. Let me explain what I mean. Alfred Marshall, who was one of the great economists of the nineteenth century, was asked what were the most important contributions of economics and what was the most important unsolved problem. He said that the most important contributions were his own and the most important unsolved problem was the theory of the large firm. He had explained how a small, a single proprietor, firm operated: a firm owned by an individual maximized its profit because it was as well the own income of the proprietor. But, in a large company, why does the manager behave in the way he does (This was before the ‘theory of agency’ had been developed). Marshall observed that in general the reward of the manager is not related very much to his behaviour and could not be explained by the standard economic model that he Marshall had formulated. Well, the answer, which I am slightly caricaturing was: in former English boarding schools you were inculcated for God, King and country and that in modern English boarding schools you were inculcated for God, King, country and company: you did these things out
of social mores. You felt you were supposed to work hard for the company and that is why you did it. So, in explaining economic behaviour, Marshall went back not to economics but to some version of sociology. The behaviour of the manager was not related to the hypothesis of the economic man. It was simply a social norm. Well, the modern economics has done a lot better explaining it but I do think that the rules and norms on which Professor Malinvaud has commented towards the end of his paper are far more important and in some ways far more complex.

Finally, let me just say that I think Professor Malinvaud is right that going beyond the standard economic model is going to be extremely difficult. But it is actually very important in describing a very large fraction of behaviour. It is important for positive economics, but it is possibly even more important for normative economics. Big policy issues that are on the table in political discourse, are often not on what kinds of policies, organizations, frameworks, will maximize the well-being of individuals with well-defined preferences. They are rather on what kind of society we want to have, how will these policies or frameworks shape individuals. These issues of shaping, forming preferences, how this gets done and how do we think about that, seem to me to be very much at the core of modern economic analysis.