Chapter 13

Epilogue

This book started with the observation that the concept of equilibrium has a long history in economics. The length of this book is testimony to this fact. The broad scope of the subjects dealt with in this history makes it impossible to sum up my findings in a concise, final chapter. As an afterthought, I shall return to some of the questions which started this inquiry in chapter 1. What does economic equilibrium mean? What explains the persistence of the equilibrium concept? Why does it cause controversy between the different schools of economics?

These questions are interrelated. This book has shown that the popularity of the equilibrium concept, defined as an explanatory principle used to explain the working of decentralized coordination, is certainly not due to its success as a scientific tool. In particular, it demonstrates that Schumpeter in his seminal *History of Economic Analysis* (1954) has given us a false image of economics. Schumpeter’s book has one overriding message and that is that the historical development of economic analysis underlines the steady growth of knowledge in economics. Reviewing the lessons of this book, my observation would be: What growth? For certain, our theories have improved a great deal in various fields of economics, improving its consistency to great extent. In addition, the theoretical section of the economics department has been joined by an empirical counterpart which is the envy of many other social sciences. Nonetheless, we have left some huge gaps in our knowledge base. One of them is economic equilibrium.

Recall the discussion of the origin of equilibrium economics in chapter 4. There, I cited Blaug who once said that the starting point for economics was the ‘mystery’ which fascinated Adam Smith as much as it does the modern economist, namely the sense of order in the economic universe. This order refers to the relative harmonious way in which profit-seeking individuals conduct their exchange transactions with equally self-minding trading partners. Has equilibrium theory solved this mystery? I do not think so. We have a highly advanced theory, called Walrasian general equilibrium theory, which offers a sophisticated mathematical description of the problem and proves that, indeed, under specific conditions this ‘dreamland’ may exist. How this solution comes about, we cannot prove in a rigorous manner, but of course there are many ad hoc ideas to fill in the blanks. This raises the question why we do not consider Walrasian general equilibrium analysis the final solution to Smith’s mysterious invisible hand.

The reason why the quest continues, in both Walrasian and non-Walrasian corners of economics, is the lack of vision in Walrasian general equilibrium theory. In chapter 2 I have defined vision as Schumpeter’s notion of a pre-analytic knowledge, structuring a field of scientific study even before inquiry has begun. Schumpeter argued that the progress of scientific inquiry would sooner or later remove such ideological overtones from its tool kit. In the case of
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Walrasian general equilibrium theory, I would argue that this is indeed what has occurred, only the rooting out of ideology succeeded a bit too well. I believe that vision plays a crucial role in scientific discourse, not only as a pre-analytic guide for study, but also in more mature sciences for the interpretation and communication of results. In Walrasian general equilibrium analysis, this function has been lost due to its excessive mathematical formalism. The mathematics has become so complex that the step from mathematics to economics can no longer be made.

Is this bad? Other sciences have reveled in excessive mathematics as well and some of them seem to be thriving. The reason why I think that excessive formalism in economics is bad is that it has a tendency to conceal the problem underlying the theory. What knowledge have we gained when we solve the difficult formulas of Walrasian general equilibrium theory? A tool to Pareto optimize the economy, so the text book answer runs, referring to the two Welfare theorems that are linked to Walrasian general equilibrium theory. But these theorems operate under such strict (static) conditions that it is an illusion to think that they have any bearing on reality (Blaug 2007). This leaves Walrasian general equilibrium theory without compass, because what does it say about the mysterious coordination problem? It seems to suggest a laissez faire approach to policy, due to its emphasis on perfect competition. But a small change in the problem setting of Walrasian general equilibrium is able to overturn this conclusion. Take the example of Akerlof and Yellen (1985a) who just slightly relax the condition of strict maximization and get results that are Pareto optimal to the fully rational GE model. This change of the equilibrium result has implications for policy, because the near rational GE model leaves scope, and in fact advises, active government involvement.

How does one discriminate between such theories that are almost identical, but for one small detail, the parameter $\beta$ which says that a fraction of the population fails to maximize? Lacking decisive empirical tests, most economists probably use something like intuition or vision. I do not think this is particularly bad or damaging to our science. I support Keynes’s claim that “economics is a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world.” GE theorists are very skillful mathematicians, but they have lost the art of understanding which model is relevant to the contemporary world. They are developing a model which originated in 1874 and seem to forget that the world underlying this model is changing rapidly. If after 135 years of theory development, Walrasian general equilibrium theory still offers no base to jump from theory to policy prescriptions, I contend that this theory has utterly failed as a solution to the coordination puzzle.

Does non-Walrasian theory fare any better? I have discussed several alternative schools in economics, which are certainly more ‘visionary’ than the Walrasian approach, but also do not generate impressive results. We have seen that where the economy is ‘visualized’ as a process rather than an end-state equilibrium, difficult questions emerge which have not been satisfactory solved by any of the alternative, non-Walrasian schools. Also, without the straightjacket of mathematical rigour, we notice a downside of the ideological impetus to science. Visions tend to collide and are thereby the fuel of many scientific quarrels. This explains the combative
reputation of economic schools that principally eschew mathematics as a tool of inquiry, such as the Austrians. Apparantly, the ‘artists’ have a stronger penchant for disagreement and altercation than Walrasian general equilibrium theorists.

On the other hand, the disappointing results of these process-oriented alternatives to Walrasian general equilibrium also provide us with an answer to the question why the equilibrium concept is so long lived: Equilibrium is indispensable. Virtually all challengers to the Walrasian doctrine and its equilibrium concept, at one time or another, introduce their own variant of the equilibrium concept. They are forced to do so due to the sheer complexity of the economic world. What better way to study this world than by freezing it for a second. This is the essence of any equilibrium concept. Just assume that data remain fixed for a while; that forces balance; that potentially disrupting forces on average cancel out; that exchange proceeds at equilibrium prices, albeit temporarily; that prices tend towards a cost of production level; that competition pushes profits to a uniform rate; that capital reproduces at a constant rate; that evolution proceeds along a stable strategy; that the future is correctly foreseen; that there occur no unfavorable surprises, et cetera. Process theories often become end-state equilibrium economics in disguise, due to the adoption of such simplifying assumptions. These short cuts are not worrisome, as long as their function is recognized and their employment does not push the need for a more process-oriented approach to economic theory out of sight.