



MACROECONOMIC METHODOLOGY

A Post-Keynesian Perspective

Jesper Jespersen

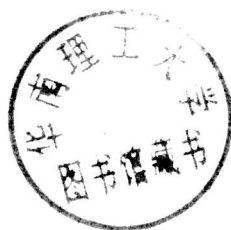
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Macroeconomic Methodology

Preface

This book has been a long time in the making. My interest in methodological questions arose already in the early stages of my studies. I was captivated by the question: why was there such a wide gap between the macroeconomic reality that unfolded before our eyes and the theories and models that were presented in our lecture halls? There must have been something wrong with the method that macroeconomists were using. To the surprise of many established economists, unemployment, contrary to the many fine theories, began to rise throughout the 1970s – all the while inflation and the current account deficit also grew. The current macroeconomic theories simply could not explain reality.

I wrote my Master's thesis on macroeconomic method in 1974 under the skilled supervision of Professor Poul Nørgaard Rasmussen and Professor Niels Thygesen at Copenhagen University, who both directed my focus on this disturbing macroeconomic problem: that mainstream economic theory could not explain the macroeconomic development of stagnation and financial instability. There seemed to be an increasingly yawning gap between theory and reality.

Concurrent with my studies, I was employed as an intern for Statistics Denmark, where I took part in creating and running simulations with the macro-econometric model ADAM, under the guidance of Professor Ellen Andersen. I later continued this empirically guided research as an assistant in the Economic Advisory Council with inspiration from Professor Anders Ølgaard and head of office Arne Mikkelsen.

Since the beginning of my university career, it has been the Keynesian macroeconomic tradition that has been at the core of my research in an attempt to build a bridge between theory and reality. I have taken up a number of current socio-economic questions including unemployment, monetary union in the EU, and sustainable development, and attempted to use these to develop the post-Keynesian theory so that it could give more relevant answers to these current issues. Time and time again I ran into the same problem: the lack of a methodological basis upon which a more realistic understanding of these issues could be achieved. Therefore, my work on the role of methodology in forming macroeconomic conclusions that could be drawn upon a scientific basis took centre stage. The research being conducted within the framework of the Critical Realist

Workshop at Cambridge University, led by Dr Tony Lawson, was of great importance for this later work. I was able to develop my contact with this group through a number of visiting fellowships at Churchill College, arranged by the Carlsberg Fund. Furthermore, since 1988 I have been a member of the Post-Keynesian Economics Study Group, with, among others, Professor Victoria Chick (University College London) as an inspiring organizer. These stints at Cambridge and London have given me invaluable inspiration for my research.

Finally, I would like to highlight my tenure at Roskilde University from 1991, first as a lecturer and then as a professor of economics. Here, I found an interdisciplinary and cordial environment that has contributed to broadening the scope of my research, both within macroeconomics and, of equal importance, within scientific theory.

The writing of this book took more than two years. Regardless of the fact that the process must have been a challenge for my family, not in the least my wife Annette, they supported me immensely. In the final phase of the project, Rosa Haslund has been very helpful in completing the Danish manuscript. I would like to offer a heartfelt thank you to my family, colleagues and the students whose contribution enabled the Danish edition of this work to be completed more or less according to plan.

The process of getting the manuscript translated into English was a rather long one. Fortunately, I had good support in the beginning from Ben Hope and later on from Diarmuid Kennan. They have made a great effort to convert my not so simple Danish into proper English. I am also grateful to Palgrave Macmillan on behalf of the Royal Economic Society for permission to quote extensively from *The General Theory of Employment, Interest and Money* and to my Danish publisher, Wilfried Roloff at Danmarks Jurist- og Økonomforbunds Forlag, who helped me with the Danish dissertation and later encouraged me to get it published internationally. Finally, I should mention that my mentor Victoria Chick has been so encouraging in her willingness to discuss a number of these theoretical and linguistic difficulties, and indispensable in her unlimited effort to complete the book. I am very grateful for this personal support which has made the completion of this English edition of my book possible.

Summary

Macroeconomic Methodology: A Post-Keynesian Perspective consists of nine chapters, all of which explore scientific theoretical content. The primary result of the book is a demonstration that macroeconomic theory and analysis are method-specific. Macroeconomic results, such as policy recommendations, cannot be assessed independently of the methodology employed. This conclusion is new insofar as there is very little overarching discussion of method to be found within the main-stream macroeconomic literature. Method is something to be used and rarely discussed. The absence of a discussion of method makes it difficult to interpret the analytical results for use in economic policy.

The book begins with an introduction wherein it is shown that if methodologically founded criteria for delimitation of macroeconomic theories are established, then it is possible to observe an overlying pattern within the existing macroeconomic literature. It can be substantiated that two entirely different methodological traditions within macroeconomic theory have developed. The first of these, a neoclassical-inspired line of theory, utilizes general equilibrium models as its analytical method, and the model of the ideal market equilibrium is central. This tradition includes both the new-classical and the new-Keynesian schools. Second, the post-Keynesian tradition employs path-dependent causal analyses, where uncertainty, incomplete information, societal power structures and institutional relationships are of greater interest. It is shown in Chapter 1 that this methodological border splits the Keynes-inspired macroeconomists into these two camps. The new-Keynesians utilize – contrary to their name – the same neoclassical equilibrium model to which Keynes was opposed in his major work, *The General Theory* (1936). It is therefore predominantly the post-Keynesians that carry on his methodological stance, the importance of which Keynes increasingly emphasized throughout the 1930s.

The methodological discussion is the heart of Chapter 2. With inspiration from Tony Lawson and Karl Popper among others, a scientific-theoretical template is developed, which then can be employed to identify the practical method. Within this template, a distinction is made between the real, the analytical and the strategic levels. It is shown that the general equilibrium theory predominantly, if not completely, operates on the analytical level. Opposite this stands the post-Keynesian methodology

that enlists some critical realist arguments to explain why the preferred methodology should include all three levels. It is recommended, when conducting a post-Keynesian analysis, that one first make an ontological reflection, leading to a sketch of the contours of the macroeconomic landscape. The further investigation of this landscape must continue as a reciprocal action between the analytical and real levels *via* a retroductive process. This process leads toward a model for analysis, the results of which can be transferred to the operational level by modifying some of the delimiting assumptions in relation to the analytical results.

Chapter 3 explains how ontological reflections, in practice, can lead to the development of a macroeconomic landscape. This is meant to consist of macroeconomic actors, macro-markets, macro-institutions and political decision-makers. The individual components in the landscape are held together by causal relations that, *inter alia*, can be described as macroeconomic behaviour relations, institutionally defined market adjustments or political regulation.

Chapters 4 and 5 expound how the macroeconomic behavioural relations can be partially anchored by microeconomic theory and partially by the macroeconomic landscape. In the first case, this happens through a critical assessment of the neoclassical assumption that a 'representative agent' can give macroeconomic models a solid microeconomic foundation. In particular, the assumption that these representative agents maintain rational expectations, meaning that they have perfect information concerning the (modelled) future, is discussed at some length, with the aim to assess the realism of the model-related expectations. It is shown that a microeconomic foundation anchored in empirical evidence on the one side can maintain the assumption of rational individual behaviour, yet it must also formulate expectations that do not take full knowledge of the future as being given. The creation of expectations ought to reflect the notorious uncertainty to which each and every economic disposition is subject. The difference between risk and uncertainty is illuminated through a number of examples. Against this background, it can be concluded that individual behaviour will always be influenced by uncertainty. Conversely, macroeconomic behaviour can, under certain somewhat idealized assumptions with respect to the 'law of large numbers', take on a character similar to that of risk; it is an area where the empirical research unfortunately still lags behind.

Later, Chapter 5 highlights the analytical problems related to how the individual elements of the macroeconomic landscape can be bound together to form 'the economy as a whole'. Neoclassical theory (including new-Keynesian theory) often uses at the analytical level a laboratory analogy, assuming it to be possible to conduct controlled experiments

where different mathematical solutions are compared. Such 'laboratory trials' are often illustrated in textbooks through a labour market analysis, where for example a fall in demand is analysed by describing how, through market forces, the actors in the labour market return to the general equilibrium, usually under the assumption that all other markets remain undisturbed. These thought experiments use general equilibrium as the analytical point of reference and are therefore a form of 'closed-system analysis'.

In post-Keynesian macro-theory, on the other hand, it is assumed that the macroeconomic landscape is under constant change and can be advantageously characterized as being open, in that considerable uncertainty exists in respect to future development. A common conclusion within post-Keynesian economics is that the sum of the parts will be different from the whole. There are several arguments which lead to this conclusion; one is that the interaction of the designed macro-markets must be explicitly drawn into the analytical model. Macro-markets cannot be analysed in isolation, which is illustrated by an example of a model-based linking of the goods and labour markets. This leads to more ambitious analytical results, in that the labour market even with full wage flexibility does not automatically return to equilibrium. Results become more ambiguous as the model is made more realistic.

In Chapter 6 the many different meanings of the analytical concept of equilibrium are presented and discussed. Equilibrium can be a solution to a mathematically formulated model. It can also be interpreted as a market-clearing condition, where planned supply and demand are of equal size. Finally, equilibrium – specifically where it is seen within the new-Keynesian or neo-Ricardian traditions – is given the form of a gravitational centre towards which the macroeconomic system is moving, but in a process characterized by various inertia caused by rational behaviour.

The post-Keynesian use of the term 'equilibrium' diverges from those just mentioned. With inspiration from *The General Theory*, a number of useful methods of analysis are described. Keynes also used the term 'equilibrium', but primarily meaning 'standstill' or 'repetition'. Here, he was inspired by the empirical state whereby unemployment in England, in the period between the two world wars, persisted at around 10 per cent. He spoke explicitly about the empirically observed unemployment equilibrium, which was in direct methodological opposition to the understanding of his neoclassical colleagues: they understood involuntary unemployment as an instance of *disequilibrium*, as it violated market clearing. Keynes, however, saw it as his task to explain this sustained high level of unemployment. Following Keynes's suggested method of analysis, this can be described as an attempt to demarcate a 'subsystem' (semi-closure) in the

macroeconomic landscape and assign a temporarily closed character to it. The assumption for making such a semi-closure is that the development in that section of the landscape displays a significant pattern of regularity. A semi-closure can be established on the assumption, for example, of expectations of the future being temporarily locked in place. Jan Kregel (1976) was a pioneer in suggesting that in *The General Theory* Keynes initially locked all expectations of the future at their current level. He thereafter loosened them one by one and investigated how the macroeconomic model developed when an increasing number of changing expectation factors entered the arena. The model quite quickly became rather incalculable. Instead, it was suggested by other post-Keynesians to combine these closures with a path-dependent method whereby a selected few variables were followed on their course through the macroeconomic landscape. This led to the development by Mark Setterfield (2001) of the 'open-systems *ceteris paribus*' method (OSCP method), where a number of variables were fixed for shorter or longer periods, while the paths of selected endogenous variables were followed. This method can be traced back to Keynes, in that he used the expression *quaesitum* ('that which we seek') in referring to the outcome of the analysis of developmental trends in output and employment in *The General Theory*.

A notable consequence of going from a closed to an open analysis model is the opportunity to avoid 'false atomic conclusions' – the so-called 'fallacy of composition'. Chapter 7 deals with how to analyse the fallacy of composition within macroeconomic theories. False atomic conclusions are made when conclusions about the macroeconomic reality are drawn from an incorrect analogy to the individual level. In a general equilibrium model it might hold true, for example, that the macroeconomic result can be derived from the sum of the microeconomic actions. But such an equilibrium approach may lead to a false conclusion with regard to reality. A classic example to illustrate the fallacy of composition is the 'savings paradox', where an increased individual propensity to save makes the total amount of savings fall. In this case, the generalization of microeconomic behaviour would lead to the wrong conclusion that at the macro-level the sum of savings would increase when all individuals intend to save more. Another example is that a reduction in individual wage claims would increase the number of employed people at the macro-level. Also here, a generalization from the individual level to the macro-level can lead to a fallacy of composition.

In Chapter 8 it is demonstrated how Keynes's principle of effective demand, using the OSCP method, can give a far more nuanced interpretation than that which is commonly presented by neoclassical theorists (*inter alia*, new-Keynesians). It is shown that the theory of effective demand

consists of both supply and demand arguments, in that it is based on the cost structure of firms as well as expected sales. Assuming that firms have given expectations of sales, then the cost structure and the competitive pressure on the goods and labour market would be the decisive factors in determining how much is produced, and consequently the macro-demand for labour. Should the supply factors change in the event of increased productivity or changes in the competitive environment (due, say, to increased globalization), then firms will likely adjust their planned productions and hence employment to match the new situation. It can thus be concluded that the principle of effective demand should be interpreted to include supply as well as demand factors in the production sector. By using a causal analysis, a number of variables that include production, profit and competitiveness are integrated in the term 'effective demand'. Hence, the myth that the Keynes model does not cover the supply side of the economic system is repudiated.

Finally, in Chapter 9, the threads are woven together. First, it is concluded that if the aim of an analysis is to understand the important trends in macroeconomic reality, then one must strive for a meaningful congruence between the real and analytical levels. As the number of unrealistic assumptions underlying the model increases, one compromises the relevancy of the results, making it more difficult to operationalize them when planning economic policy. A number of examples are given to show that unrealistic assumptions lead to a narrower range of validity, which in a number of relationships will limit the operational relevance of the results. It is concluded that the macroeconomic ontology should be decisive in the selection of the method of analysis, whereby it can ensure that the analytical results that underlie economic advice have a solid theoretical foundation.

The chapter, as well as the entire book, ends with a schematic overview of the results reached in relation to the three dominant schools: new-classical, new-Keynesian and post-Keynesian macroeconomics. It is concluded that there are significant methodological and theoretical characteristics that differentiate these schools and consequently their ability to analyse a macroeconomic reality characterized by uncertainty and continuous change.

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Introduction

INTRODUCTION: DIFFERENT POINTS OF VIEW

John Maynard Keynes's macroeconomic theory was developed in the interwar period as a reaction to great imbalances in economic development, nationally and internationally. Up to and following the First World War, there were significant variations in respect to inflation, unemployment and the national budgets.

The macroeconomic imbalances of this time were to a certain degree self-amplifying in that they contributed to creating an atmosphere of uncertainty on all societal levels, particularly concerning what the future would bring, economically and politically. Lacking a macroeconomic-theoretical basis, politicians were advised to re-establish the economic world order that had dominated in pre-war times in the major economies of the UK, the USA, France and Germany.¹ The aim was for the international economic system to function the way it did before 'the world got off track'. Unfortunately, it became clear during this interwar period that the macroeconomic system lacked stability: high inflation was followed by a sharp drop in prices; unemployment was rampant and there were recurrent currency crises.

The macroeconomic thinking at that time did not really differentiate between theories for personal households, the state budget and the national economy; rather, they were lumped together. As Adam Smith, back in 1776, had stated: 'What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom' (Smith, 1776 [1976]: 457). On this point, Smith was not correct, as seen in Keynes's groundbreaking discoveries in macroeconomic method in the 1930s: drawing a parallel between micro- and macro-levels brings with it the risk of committing the so-called fallacy of composition (atomistic fallacy) (see Chapter 7). Macroeconomic developments, an example being unemployment, cannot be fully explained via a theory concerning optimal microeconomic behaviour. This leads us to the need for a distinct macroeconomic theory, furthermore demanding an explicit methodological basis, allowing for a holistic explanation rather than a summation of individual activities.