Jesper Jespersen Institute of Social Sciences Roskilde University e-mail: jesperj@ruc.dk

> Preliminary draft Comments will be appreciated

Macroeconomic Methodology

- A Post Keynesian Perspective -

Paper prepared for the Conference: Debating Critical Realism

Roskilde University, 17-19 August 2001

[Macroeconomics is] a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world... because the material – to which it is applied – is, in too many respects, not homogenous through time... The object of a model is to segregate the semipermanent or relative constant factors from those, which are transitory so as to develop a <u>logical</u> way of thinking of the latter. Keynes(1938), cw-xiv, p.296/7

Introduction to Macroeconomics

Macroeconomics is about unemployment, consumer price index, balance of payments, budget deficit and growth. They are all aggregate numbers and the outcome of thousands and thousands of individual actions; but the outcome is important for the well being of a nation and can be influenced by national policies.

Macroeconomics is, in fact, not equivalent to 'n x microeconomics' due to interdependence (if I get a job someone else might loose his/her) and balance of payments deficit means increased risk of a currency crises which affect all member of society.

There are 'schools of macroeconomic theory'- Phelps identified *Seven Schools of Macroeconomic Thought*, some more different than other.

According to Keynes there is one important dividing line between macroeconomic theories: is the market based macroeconomic system self adjusting?

On the one side are those (economists) who **believe** (my italics, jj) that the existing system is, in the long run, a self-adjusting system....

On the other side of the gulf are those that reject the idea that the existing economic system is, in any significant sense, self-adjusting, (Keynes, vol. xiii, p.485)

Keynes is posing the question: is the macroeconomic system *open?* If so it will – as he demonstrated effectively in *The General Theory* - have wide-ranging ramifications for macroeconomic reasoning.

Knowledge (or the degree of ignorance) of the future <u>and</u> the past becomes a significant ontology which prevents that macroeconomics is nothing but generalised microeconomics.

Conventional macroeconomic theory

The strength of the self-adjusting school depends on it having behind it almost the whole body of organised economic thinking of the last hundred years (vol. xiii, p.492)

Keynes wrote that in 1934. For a couple of decades the economic establishment was shaken; but the *neoclassical synthesis* lead by Hicks, Samuelson and Patinkin made the self-adjusting school regain its dominance.

The theoretical development within (macro)economic theory for the past 20 years has been to integrate macro- and microeconomics into one coherent analysis:

The most interesting recent development in macroeconomic theory seem to me describable as the reincorporation of aggregative problems such as inflation and the business cycle within the general framework of microeconomic theory. (Lucas(1987),p.108) If each individual behaved rationally (optimisation with perfect knowledge) then the market economic system would generate a general equilibrium position. Accordingly, New classical economists interpreted observations as states of general equilibrium and explain economic development (even business cycles) as changed preferences among individual agents.

Involuntary unemployment is not a fact or a phenomenon which it is the task of theorists to explain. (Lucas(1978), 243)

After all, some traditional economists find it difficult to accept that 10 per cent unemployment for more than a decade is a general equilibrium phenomenon. This means that either the economic agent does not behave rational or politicians create persistent structural barriers preventing market forces to create general equilibrium (as the economic textbooks predict).

Furthermore the conventional macroeconomic theory has difficulties to explain in a consistent way the existence of money. There is no rational reason for individuals to possess money; but money is an undeniable fact of modern societies.

Given the empirical fact that involuntary unemployment and money are significant aspects of the macroeconomic reality, which is supposed to be understood using macroeconomic theory it is absurd to conclude that these phenomena are caused by agents behaving in a non-rational way. To me any economic theory that does not assume that agents try to get the best out of their opportunities seems to miss an important fact of reality.

The debate in 'microfoundations of macroeconomics' is about:

- a) The content of the preference function that is optimised by the agents which is not necessarily only their individual utility
- b) What level of information with regard to the entire economic system that agents do have which is not necessarily full information about the general equilibrium solution.

The ontology of conventional macroeconomic theory assumes that rationality means individual maximisation of consumption and full information. Then macroeconomic analysis is reduced to a discussion of what <u>price and wage rigidities</u> are preventing the market economy (in casu the labour market) to adjust. Macroeconomics becomes more a branch of political science than economics – the aim is to explain the behaviour of selfish (rational?) trade unions and politicians. This neoliberal political theory is well known under the label of *public choice* theory.

If agents have endogenous and/or mutually dependent (ethical?) preferences, or if they have less than full information about future outcome then *uncertainty* prevails and the outcome of the macroeconomic system becomes (partly) unforeseeable. By that the purpose of macroeconomic theory changes. It is no longer a matter of explaining why full employment is not achieved or how long time it will take before the economy has return to full employment equilibrium. When the model becomes *open* then the objective of macroeconomic theory is to study continuous changes, Fitzgibbons(2000), p.15

Post Keynesian Macroeconomics

When states of knowledge are of the essence, it is best to acknowledge the reality by clearly and consistently theorizing about the consequences of partial ignorance, Fitzgibbons(2000), p.65

Post Keynesian Economics (PKE) is a Vision of (macro)economic processes (in the Heilbroner & Milberg (1995) sense). To understand these process the PK-methodology contains several different procedures: 1) Formal modelling, 2) Institutional considerations, 3) Econometrics, 4) Historical comparison and 5) Interfaces with other disciplines (Dow(1998), p. 378).

One distinct feature of PKE is *uncertainty*, which relates to all parts of the economy. Any individual is making decisions under uncertainty due to lack of personal information with regard to relative prices, income, other agents behaviour *and* the future. The macroeconomic system interacts in an uncertain/unpredictable way due to individual behaviour, institutional constrains and lack of knowledge which all contribute to the *openness* of the system. The PK methodology has to be able to handle and incorporate in a significant (and consistent) way this ontology of macroeconomic processes.

Social Structures within PKE are considered as being 1. *organic interdependent*, which calls for a *holistic approach* and 2. *open* (economic processes are evolving through time - partly in an irregular fashion due to uncertainty).

Having said this the concept of *effective demand* becomes indispensable to understand macroeconomic processes. From an *epistemological* point of view, PKE would never claim that the economic development through time could be predicted even if effective demand (and uncertainty) was theoretically integrated into the model. On the other hand *effective demand* gives a better understanding of mechanisms affecting macroeconomic trends and likely breaks in these trends.

An important critique of macroeconomic dualism

Athol Fitzgibbons¹ (AF) has quite recently published an important contribution to macroeconomic reasoning *The Nature of macroeconomics*. His aim is to go beyond dualism (to paraphrase Sheila Dows paper). Quite convincingly he demonstrates that there is an artificial dichotomy within the macroeconomic debate. Main stream macroeconomics assumes that agents possess full information (they have so call rational

¹ Way back in 1988 I was visiting fellow at King's College, Cambridge. One evening when I browsed along the shelves in the library a just stumbled over the first book written by Athol Fitzgibbonz *Keynes's Vision*. This book was to me a real eye opener in the sense that Keynes's macroeconomics can be interpreted as an open system

expectations). Many Post Keynesian economists are clinching to the statement made by Keynes in 1937 *that we simply do not know*. They conclude that Keynes should have held the view that people are acting as though reality is hidden behind a veil of ignorance. By that assumption individual behaviour becomes random (or *irrational* to speak the neoclassical language).

The paradox is that both schools conclude that macroeconomic behaviour can be modelled using *representative equations*.

But, according to AF, the real challenge should to make a realistic theory where agents are assumed to use their partial knowledge as rational as possible when the environment is changing. That is, on the one hand, causing a learning process to take place contemporary with, on the other hand, changing policies, changing institutions and by that changing structures.

People know that their knowledge is partly subjective probabilities (personal experiences) and partly objective frequencies. On that knowledge basis people form their subjective/uncertain expectations about future events. By hindsight they realise that some were more wrong than other. Everybody is learning from his or her mistakes. At the same time the macroeconomic outcome is changing meaning that the learning process is open

In that sense it is reasonable to assume that people behave rational; but it is unreasonable to assume that they are able to make optimal decisions because of the limited knowledge. Knowing that there is quite a lot you do not know prevents you from the aspiration of 'optimal decisions'².

and the economic system can never be deterministic.

According to AF macroeconomic theory *after Keynes* has failed to make a convincing contribution to social sciences, because post war macroeconomic thinking has either assumed that the *future is totally* (in the longer run the ocean might be flat) or the *future is totally* unknown (we simply don't know):

Macroeconomic theories are by no means useless, but when their <u>knowledge</u> <u>assumptions</u> (my italics, jj) are hidden, there is a tendency to claim that each theory is either general, or totally useless. (p. 95)

In other words macroeconomic theory cannot be learned by deduction. Some mechanisms are more likely than other (what Keynes called *psychological 'laws'* with regard to consumption and investment (animal spirit).

Another mechanism is economic policy. Given the assumption of partial knowledge and rational behaviour then macroeconomic policies will have a lasting effect. The problem is that no one can exactly tell what kind of lasting effect; but again some outcomes are more likely than other. Politicians are free to act. They are not necessarily guided by (pure) self interest. The actions of politicians are probably less predictable than the behaviour of the atomic agents.

² ' Optimization is only possible when decision-makers can act 'as if' they have perfect knowledge', and in effect this is what Tinbergen implicitly assumed. (p.101)

It has often been noted that PK economics is a broad church. This book follows the epistemological tradition of taking **partial knowledge** to be a salient characteristic of the capitalist system, and regarding standard economic theory as limited because it fails to analyse knowledge, p. 106

Critical Realism and Post Keynesian Economics³

Critical Realism (CR) in social sciences is a methodological reaction against on one side the Humenian approach based upon *formal logic, mathematical theorising and empirical statistics* and on the other side that theories on society are nothing but *social constructions*.

CR is a method of *practical reasoning* trying to identify likely relations (mechanisms) between different social events leading to probable conclusions (for the time being). Then structures might change and we have to rethink the mechanisms once again to understand reality. The Enlightenment philosophers would of course, have rejected this methodological approach and merged natural and social sciences into one single and universal scientific method with reference to optimisation, singular causality with only reference to mathematical models.(p.124-7) Neoclassical theorists from Walras to Samuelson are well known representatives for this epistemology within economics.

As pointed out by AF with reference to Lucas (cf. above) a strict neoclassical approach to economics will exclude any significant macroeconomic phenomenon to happen. Macroeconomics degenerate into generalised microeconomics when *non-quantitative knowledge is disallowed* (p.145).

A triangle (or better a multidimensional iceberg) can illustrate the methodological differences:

At the top we have the macroeconomic data. They are not just a social construction, but facts about the social reality, which we want to understand, better.

At the second level we have mechanisms – human behaviour by ordinary people and politicians that might affect the development in these social phenomena.

But mechanisms are constrained by the social structures – conventions, institutions, and power positions.

Critical realists consider the iceberg as an organism with mechanisms and structures that can be (partly) understood. That provides the politicians with some qualified ideas of possible outcomes of different encroachments; but as Keynes reiterated *the material is not homogenous through time* there are no unchanged structures or mechanisms for all seasons. We have to make a new **and** relevant analysis (model) each time: what are the likely effects on *effective demand*?

A neoclassical economist approaching the iceberg sees a clock-work system describable in mathematical terms. Data will only change when some external economic variable is manipulated. If the rules of the game is changed by the government: e.g. private property rights, welfare state incentives, minimum wage, or transaction costs then the general

³ In this section I give the contribution by Fitzgibbons an interpretation as though he is a representative for Critical Realism

equilibrium solution will be different. That is a mechanical approach which leaves out genuine macroeconomic considerations related to ever changing preferences and the nonquantitative dissemination of information and knowledge.

Two cases where Critical Realism makes a difference

- 1. Unemployment and Labour Market analysis
- 2. European common currency (Euro)

Unemployment

The neoclassical analysis of (un)employment is summarised in figure 1 – taken from the widely used introductory textbook in economics (Begg, Dornbusch and Fischer). Two reasons for unemployment, I quote: (Trade) *union power succeeds in maintaining the wage w2 in the long run* (AB) and *optimists hanging on* (due to the welfare system, jj) *waiting for a better job offer!*

A critical realist would start to investigate how the labour market is integrated into the entire economy taking an organic/holistic approach. Demand for labour is not determined by 'optimising competitive firms' in the real world, but by *effective demand*, cf. 2. Furthermore, many structural and institutional matters influencing the supply behaviour will also be changed. The correspondence between the welfare state and the labour supply we simply do not know. The wage level is (partly) negotiated between employers (union) and the trade union. The outcome depends on power positions. Imagine what would happen is trade unions gave up their power and the labour supply (curve) was nearly vertical. Then the employers organisation could force the wage level towards zero! (Remember early 19th century ?)

Or look at figure 2. A wage-tax is causing open unemployment (N1N2). If it is removed the labour market moves directly to point E – no consideration of effective demand, but even worse not a single word on how the welfare state is financed when income taxes are cancelled. A critical realist would immediately say: Hold on, an important institution has been changed, we have to make an entire new analysis of labour market behaviour.

European Common Currency (Euro)

Neoclassical economists consider the change of currency just as a minor technical matter. This will reduce transaction costs in international trade and by that expand labour the border of the production possibility area. Who can rationally oppose that? But rationality does not take 'mechanisms' and 'structures' into account.

The Danish political debate leading up to the referendum on Denmark joining the Euro or not demonstrated that people do care about the structural consequences of the monetary system in EU. Many felt that abolishing the national currency would diminish the national sovereignty and by that the options of the welfare state. If there had been a majority for the abolition then there would have been a change not only in an important institution (the Danish currency), but also in the way people would have behaved with regard to social security, unemployment, wage negotiations (just to mention a few obvious areas).

These changes in human behaviour (mechanisms) were absolutely unpredictable. In fact no one knows how people will behave in the 12 member states which give up their national currency from 1^{st} January 2002. But it is fairly likely to assume that some kind a

immediate chaos will occur the first two-three months – after that its anybody's guess the outcome is open, no critical realist model can tell the macroeconomic outcome.

Concluding remarks

A serious macroeconomic analysis could benefit from the methodology of Critical Realism. Any macroeconomic model should be open and not limited by a dualistic approach. That makes conclusions less decisive, but more realistic. That is a distinct feature of (modernised) Post Keynesian Economics.

Literature:

Chick, Victoria (1983), *Macroeconomics After Keynes: A Reconsideration of The General Theory*, Oxford: Phillip Allen

Dow, Sheila (1996), *The Methodology of Macroeconomic Thought – a conceptual analysis of Schools of Thought in Economics*, Cheltenham: Edward Elgar

- - (1998), *Post Keynesianism*, in *The Handbook of Economic Methodology* edited by John B. Davis, D.W.Hands & Uskali Mäki, Cheltenham: Edward Elgar

Fitzgibbons, Athol (2000), The Nature of Macroeconomics, Cheltenham: Edward Elgar

Jespersen, Jesper (2000), Introduktion til makroøkonomi teori, København: DJØFs Forlag

Keynes, John Maynard (1938) *The Collected Writings*, vol. xiv: *The General Theory and after: part ii, Defence and Development*, London: Royal Economic Society and Macmillan, 1973

Lawson, Tony (1997), Economics & Reality, London: Routledge



Jesper's Iceberg

