What's gone wrong with economics?

By Dennis Leech, University of Warwick and LSE

Lecture to Bath Royal Literary and Scientific Institution

10 March 2017

There is a lot of discussion going on about the state of economics today. A lot of criticism is coming from outside the academic establishment – from students, journalists, public intellectuals and policy makers. This has occurred since the financial crash of 2008 and subsequent recession, although it can also be seen as really an intensification of much older debates about economic thought that have been going on for many years before that. There has been intense debate, within the economics 'profession', about the way the subject was done, going back at least to the sixties if not earlier. However it had ceased to take place within the mainstream and nowadays most critical writing is confined to a few fringe academic journals, while the main journals have become almost exclusively the domain of a narrow range of orthodox thinking. This lack of open debate was very unhealthy.

(By the way, economics must be one of a very few academic disciplines whose members refer to themselves as a "profession". I wonder if this terminology endows the orthodoxy that occupies the pages of the mainstream journals and textbooks with additional authority.)

One of the most remarkable instances of criticism emanating from government circles occurred in 2008 when the queen was visiting LSE just after the crash and she asked the assembled dignitaries why nobody had seen it coming.

One answer is to say that economics is concerned with understanding how the economy works rather than forecasting. After all, nobody would expect a political scientist to forecast the result of every election. But that begs another question: "if economists understand how the economy works, how come they have not been able to design institutions and policies to prevent such crises from happening?"

But anyway many economists <u>are</u> engaged in forecasting and their inability to spot the crash was a major failure of their methodology. The fact that the crash happened was also a consequence of seriously flawed thinking underpinning the policy regime in force.

Following the crash students intensified their complaints about the syllabuses of courses they were being taught. They complained that their courses were too preoccupied with the properties of abstract models not rooted in the real world and they demanded more relevance. For example a group that started at Manchester University called the Post-Crash Economics society (http://www.post-crasheconomics.com) was set up to campaign for more relevance and methodological pluralism in courses, but it met with limited success. This is actually a renewal of earlier campaigns such as the post- autistic economics movement that began in France in 2000, arguing against the dominance of a single method – which is known as neoclassical economics - and for a pluralism of approaches. They likened the mainstream discipline of economics to someone suffering from autism: someone who continues with the same asocial behaviour regardless of any outside influences. This gave rise to the Post Autistic Economic Review, now renamed the Real World Economic Review. Review. (http://www.paecon.net/PAEReview/)

So what is the problem? Are the students and critics right? Or is it just that they lack the skills necessary to do mainstream economics?

Is economics too mathematical?

A very common criticism of economics teaching and scholarship generally is that it has become far too mathematical. Students today have to take and pass prerequisite courses in quantitative methods before they can study economic principles. Both mathematical and statistical techniques are required. Also scholarship is heavily mathematical with economics writing in academic journals and textbooks couched in algebraic symbolism which makes it extremely difficult to read for all but a few initiates who already have expertise in the area. The usual response is to say that complainers should just get on with it: that is the way economics is.

It is true that academic writing about economics should be written in clear language and not pretend to be something – mathematics - that it is not. This is a major and valid criticism of the way economics is done.

It is interesting and perhaps somewhat ironic that today's economists who write in this way are failing to follow the advice of one of the founding fathers of neoclassical economics, Alfred Marshall,

(https://en.wikipedia.org/wiki/Alfred_Marshall)
who was responsible for the supply and demand framework and partial equilibrium analysis of markets. He wrote:

"[I had] a growing feeling in the later years of my work at the subject thata good mathematical theorem dealing with economic hypotheses was very unlikely to be good economics: and I went more and more on the rules - (1) Use mathematics as a shorthand language, rather than an engine of inquiry. (2) Keep to them till you have done. (3) Translate into English. (4) Then illustrate by examples that are important in real life. (5) Burn the mathematics."

His work was mathematically very rigorous but written so as to be comprehensible to the reader. That does not suggest that mathematics has to be a prerequisite to studying economics at undergraduate lev el though it might be needed before conducting research.

There is an issue about what sort of quantitative techniques students should be expected to know. Statistics is essential because economics is all about measurement. But in their first year students only need to be taught basic economic statistics – that is the measurement of the economy. Students should know about how an index number is constructed so they can understand things like the consumer price index, or the rate of growth of GDP, and graphical representation of trends. Only high school maths is required for this. This is quantitative methods for describing the economy at a very basic level, the foundations for a proper understanding.

More advanced topics such as optimization theory, statistical inference and parameter estimation have to do with economic modelling and not required for an economics degree. Some of the techniques students are taught are really of questionable use. It really does not aid understanding or develop useful skills to have to derive demand functions from first principles expressed exclusively in algebraic terms, with a given utility function – very few are likely to ever need to do that in their later career, only those who go on to very advanced theoretical research. Studying the *idea* of a demand function and the *nature* and *meaning* of a utility function are far more important.

So I do not agree with the simple proposition that the subject is just too mathematical. Quantification is intrinsic to economics. But I think that often what is taught is the wrong sort of quantitative methods – more to do with abstract economic modelling than with the measurement of the real world economy. And too much economics scholarship is expressed using needless mathematical notation, a form of jargon. Economists should heed the advice of Marshall and write in clear English.

The reduction of macro to micro: the neglect of Keynesian economics and the ascendency of neoclassical economics

What has gone wrong with economics is not only that there is too much writing couched in needlessly mathematical terms but something more fundamental than that. It is that there has occurred a major shift of focus away from macro to micro. There has also been a shift away from real-world empirical relevance to mainly theoretical argument. Macroeconomics – by which I mean primarily the economics of Keynes – is no longer taught in many universities. By that I mean it is not taught properly. The economics of Keynes has been sidelined.

Because of the need to analyse the behaviour of key macroeconomic aggregates such as GDP, consumer expenditure, capital formation, etc, in a way which is consistent with assumptions about the behaviour of the microeconomic units that compose them, there has arisen the practice of emphasizing so-called microeconomic foundations. We cannot talk about how a macroeconomic aggregate such as GDP behaves except simply as the summation of how its microeconomic components behave. An increase in GDP of a given amount occurs simply as a result of decisions taken by firms to increase their individual outputs by amounts that add up to that amount. Likewise an increase in aggregate saving in the economy of x billion pounds occurs because individual households taken together decide to increase their saving by net amounts that exactly add up to x. So only micro economic analysis is needed – we only need to theorise about households and firms. Macroeconomics is a matter of little more than simple adding up.

And the way the economic analysis is done is by using the intellectual short cut of the *representative household or agent*. All households are considered to be essentially similar in that they are assumed to be rational self-centred optimisng agents who maximize their personal welfare over their lifetime; this is defined mathematically by a utility function over their consumption over their lifetime and subject to a budget constraint. They all behave in the same clone-like fashion although they differ in their preferences and wealth. Therefore, in terms of economic analysis, micro is paramount and macro subsidiary, although of course macro is much more important for government policy makers since it deals with the whole economy. (See especially the references to Mirowski, Kirman et.al. for a critique of this.)

This state of affairs – which dominates economic thinking in many universities today - is unsatisfactory because it completely disallows consideration of coordination problems that arise in the real world. Such problems are common: they arise for example as a natural result of the circular flow of income. They are an important focus of macro economic policy for governments and central banks. Such problems used to be a major concern of academic thinking and teaching about macroeconomics, and were addressed directly using the tools of Keynesian economics, especially the concept of effective demand.

This currently popular micro-foundations-based approach is ontologically naïve in that it does not allow for *emergent phenomena*: that is, behaviour at the macroeconomic level that is not apparent from the behaviour of the micro units comprising the macroeconomic aggregates. Perhaps we might call them unintended consequences of the behaviour of individual households and firms. But in the real world such emergence is absolutely important and should be at the centre of macroeconomic analysis. That is what Keynesian economics is all about.

To give an example, let us consider the paradox of thrift. Suppose there is a widespread belief, shared by millions, that a slump is imminent. Then it is likely that households will adjust their spending to try to save more as a precaution. However, because income circulates between households, that is not simple. One person's spending has an effect on the level of other people's income through market transactions. This fact of interdependence is ignored by the representative agent theory. Therefore it must happen that increased saving, lower spending, by some households leads to lower incomes for others who supply them with consumption good. These latter households will have to save less, although they want to save more, because their incomes are less. They will also spend less, contributing to a further loss of income by others who supply them in turn, and so on, as spending and income circulates. The net effect of such a general rise in the propensity to save may well, therefore, be to reduce GDP, and therefore to reduce overall saving in the economy. So households end up saving less, not more.

Thus, taking into account the circular flow of income, we must regard macro economics as profoundly different from micro economics – differing not only in its scope, but also – crucially - in its methodology. Differing methods of analysis have to be used for micro and for macro. Micro theory is concerned with intertemporal optimization by households or firms – what we define as rational behaviour – while macro theory deals with coordination between households - which does not require us to assume rationality on the part of individuals. All that is needed for macro analysis is that people, taken as a whole, behave in certain known predictable ways.

Keynes is often criticised for having said in his major work, *The General Theory of Employment Interest and Money,* published in 1936, that household consumption expenditure and saving are determined by what he called a fundamental psychological law, which he called the marginal propensity to consume: that in increase in aggregate income will lead households to want to spend more on consumer goods but also to save more too. This idea is the foundation of the Keynesian multiplier and of the concept of effective demand. But from the point of view of the modern theoretical economists this is not so much an empirical law as an *ad hoc* statement lacking in proper theoretical rigour and should be dismissed as an error.

We are told that Keynes was a genius but he was flawed and made basic mistakes. But the propensity to consumer can also be seen as just a statement of an empirical fact about how the mass of people behave. Keynes expressed that using the phrase, “by and large and on the average”. We can legitimately ask why it is necessary to insist that consumption and saving should be based on a particular rigorous theoretical model rather than just observed behaviour. The choice between Keynes and his neoclassical critics is between a model based on empirical description and theoretical prescription, between science and speculation.

Moreover, using a specifically macroeconomic – as distinct from micro-foundations-based - approach allows for there to be the possibility of involuntary unemployment. Involuntary unemployment is something we see plainly in the real world but it is ignored – indeed it is assumed away - by the idea of the representative agent. Some people can be involuntarily unemployed if the economy is in recession because there is not enough effective demand (that is, to simplify, not enough jobs).

This change in the way macroeconomics is done has been apparent to me during my career due to changes in its position in the curriculum. When I was a student, and up to about 1980, a course in economic principles that covered both macro and micro would be designed with no natural ordering for the presentation of the material: macro could be taught first followed by micro, just as easily as the other way round. The two halves were taught with little cross reference of one to the other. It was not unusual for the phasing to present macro first followed by micro. That does not seem to happen today: it is always micro, deemed to be foundational, then macro requiring the application of micro principles. (I acknowledge that there may be exceptions to this rule that I am unaware of: my observation is a personal one not based on proper research.)

Many economists would, of course, vehemently deny that Keynesian theory is neglected in the curriculum. They define what they teach as Neo or new Keynesian economics. But this is not the economics of Keynes as set out in *The General Theory*. That today would be called Post-Keynesian.

Neo Keynesians argue that Keynes' failure to provide proper microfoundations meant his work was flawed and that they have corrected his error, and built an improved version. They have shown his theory was therefore only ever a special case of a general equilibrium system. Following the theory of Walras (and Adam Smith's invisible hand), a competitive economy should tend towards a full employment equilibrium if left to itself. Keynes was only concerned with the situation where this was prevented from happening by market imperfections, notably the fact that prices do not adjust. So Keynes was only looking at a special case in which prices and wages are fixed. Unemployment persists because real wages are prevented from adjusting downwards.

There is a big literature on Neo Keynesian models giving various reasons why prices do not adjust to bring about equilibrium: for example, imperfect competition, monopoly trade unions, menu costs. Thus Keynes has been integrated into the neoclassical general equilibrium paradigm he so opposed. Models constructed from this point of view, known as dynamic stochastic general equilibrium, DSGE, models are used for much of forecasting today, which maybe helps answer the Queen's question.

There is also a lot of empirical evidence that wages and prices just do not adjust to bring about equilibrium as a matter of simple fact. That suggests that economic analysis out to be based on that fact as a given rather than regard it as a special case.

One of the most important features of Keynesian economics is the multiplier, whereby an increase in spending - in a recession, when there are unemployed resources in the economy ready to be used to meet demand - leads to an increase in GDP. So in a slump the government can step in to fill the spending gap without necessarily increasing the debt to GDP ratio. Government borrowing might increase but so will GDP and it is the ratio that matters not the absolute amount of debt. It is important to stress that the multiplier only works where there is a lack of effective demand and involuntary unemployment. It does not apply to a situation of full employment when a fiscal boost can only divert resources from other uses and unambiguously increase the public debt to GDP ratio. By the way it also predicts that the effects on the government finances of increased spending in a recession and cutting it at full employment are likely to be asymmetrical. The Keynesian rule is to increase government spending to ensure full employment then the financial deficit will take care of itself.

There is plenty of evidence in support of the multiplier. But the representative household perspective excludes it. From this point of view the household – knowing nothing about the circular flow of income - will see an increase in government spending as a prelude to a tax increase and will save – not spend – more. All households being clones will do the same. So the multiplier is zero. Government fiscal stimulus is ineffective.

The neglect of the multiplier by policy makers, as a result of their neo classical focus on the idea that only the representative agent matters, leads to many problems including austerity. It leads to the idea that the government is like a firm or household. Therefore it follows – and moreover it seems to be nothing but good common sense to unthinking people – that if it is in deficit and does not want to raise taxes the government must reduce spending. Hence we end up with Osbornomics. During his period as chancellor cutting spending has led – thanks to the multiplier - to reductions in effective demand, which meant the UK experienced a much slower recovery from the effects of the 2008 crash. And moreover the deficit did not come down as fast as predicted. (On top of that government spending provides important public goods and services which cannot simply be cut without creating other demands on the government elsewhere.)

The design of the euro zone is another problem area that is the result of ignoring Keynesian economics. The Maastricht rules are meant to promote convergence of the different economies of euro zone members. If a country has a deficit it is required to take action to reduce the deficit thereby promoting stability. But the rules were based on exclusively neo classical thinking. The adjustments countries are required to make are entirely on the supply side and include cutting government spending and internal devaluation – a euphemism for cuts in wages, pensions and other social benefits. The result of such austerity – as we see repeatedly - is to make the imbalances between member countries worse. Cutting spending in a recession makes the recession worse. This is seen most graphically in Greece where the application of neo classical economics and rejection of Keynes is having disastrous effects.

The move away from Keynesian economics began in the 1970s coinciding with the political move to the right in the UK and USA, and then the election of Reagan and Thatcher. Almost overnight, it seemed, mainstream journals stopped publishing Post Keynesian articles. There was a neo classical revolution in economics. Still today only a small number of journals will publish Keynesian economics and they tend to be viewed as of low status. Beginning academics who want to have a successful academic career are advised to avoid doing research that is truly Keynesian. I believe there is even a bias against macro in academic appointments and the process of awarding permanent academic posts in departments where such decisions are made mainly on the basis of publications in "top journals". (Paul Davidson, referenced below, has staunchly upheld the spirit of Keynesian economics throughout this revolution. See also the websites of Robert Skidelsky and PRIME.)

After the financial crash of 2008 there was an international movement to prevent the banking crisis turning into a major recession by a coordinated fiscal stimulus by several major nations, led by Britain. It was said to be a return to Keynesian economics. However, it was a departure from the wider trend in the other direction.

The failure of economists to recommend policies based on Keynesian thinking means that economics has caused much misery. It has also led to policy disasters and a failure to address problems. I mention the problems with the eurozone, austerity in the UK, the crash of 2008. Excellent discussions of the fundamental design faults with the euro are the article by Wynne Godley and the recent book by Joseph Stiglitz. A critique of George Osborne's austerity policy that was aimed at fiscal consolidation is by Chick and Pettifor. I have also cited three articles and a book on the contribution of faulty economic thinking to the financial crisis of 2008 (Colander et.al., Krugman and Smith).

I will finish with a quotation from Keynes:

"The object of our analysis is, not to provide a machine, or method of blind manipulation, which will furnish an infallible answer, but to provide ourselves with an organized and orderly method of thinking out particular problems; and, after we have reached a provisional conclusion by isolating the complicating factors one by one, we then have to go back on ourselves and allow, as well as we can, for the probable interactions of factors amongst themselves. This is the nature of economic thinking. Any other way of applying our formal principles of thought … will lead us into error." (*General Theory*)

Some references, webpages and blogs

Critiques of economic thinking today

Institute for New Economic Thinking inaugural conference: *The economic crisis and the crisis in economics*, http://tinyurl.com/l8ymrsk

Kirman, A., 1989. The intrinsic limits of modern economic theory: the emperor has no clothes. *The Economic Journal*, *99*(395), pp.126-139.

Kirman, A.P., 1992. Whom or what does the representative individual represent? *The Journal of Economic Perspectives*, *6*(2), pp.117-136.

Mirowski, P., 2013. *Never let a serious crisis go to waste: How neoliberalism survived the financial meltdown*. Verso Books.

Stiglitz, J., (leading economist, having made many major theoretical contributions, advised government and international bodies and written popular books)
http://www8.gsb.columbia.edu/faculty/jstiglitz/

Real World Economics Review http://www.paecon.net/PAEReview/
(online journal with many articles from post-Keynesian and heterodox perspectives)

Financial crisis and economics

Colander, D., Howitt, P., Kirman, A., Leijonhufvud, A. and Mehrling, P., 2008. Beyond DSGE models: toward an empirically based macroeconomics. *The American Economic Review*, *98*(2), pp.236-240.

Colander, D., Goldberg, M., Haas, A., Juselius, K., Kirman, A., Lux, T. and Sloth, B., 2009. The financial crisis and the systemic failure of the economics profession. *Critical Review*, *21*(2-3), pp.249-267.

Krugman, P., 2009. How did economists get it so wrong?. *New York Times*, *2*(9), p.2009.

Smith, Y., 2010. *Econned: how unenlightened self interest undermined democracy and corrupted capitalism*. Palgrave Macmillan.

Keynesian economics and economics of austerity

PRIME (Policy Research in MacroEconomics) http://www.primeeconomics.org
(very topical and lively - run by Ann Pettifor who appears on the media frequently – Keynesian analysis)

Paul Davidson (leading Keynesian scholar, founder of Journal of Post Keynesian Economics)
http://econ.bus.utk.edu/department/emeritus/davidson.asp

Robert Skidelsky (Keynes biographer, high profile advocate of Keynesian policies)
http://www.skidelskyr.com

Chick, V. and Pettifor, A. with Tiley, G., 2010 (revised 2011, 2016). *The economic consequences of Mr Osborne*. Prime economics.
http://tinyurl.com/mt5a69e

The problem with the eurozone

Godley, W., 1992. Maastricht and All That. *London Review of Books* [Online] vol. 14 no. 19 pp. 3-4. (Seminal critique of the design faults of the Eurozone.)
https://www.lrb.co.uk/v14/n19/w

Stiglitz, J., 2016, *The Euro: And its Threat to the Future of Europe*, Allen Lane. See also (extract from the book) *The problem with Europe is the euro*
http://tinyurl.com/hyxwwhg

Economics journalism

John Kay (a leading UK economist, very insightful, regular FT columnist)
https://www.johnkay.com

Martin Wolf (highly recommended, chief economics commentator of the Financial Times) https://www.ft.com/comment/columnists/martin-wolf

Paul Krugman's blog in the New York Times, *The conscience of a liberal*
https://krugman.blogs.nytimes.com

Center for Economic and Policy Research
(US progressive thinktank with thought provoking blogs by Marc Weisbrod and Dean Baker) http://cepr.net