

Fabulous Macroeconomics

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The state of macroeconomics has come in for criticism since the great recession of 2008 which was not expected by most economists and was, indeed, impossible according to an influential class of economic models.

Two sets of criticism may be distinguished. One refers to the scope of the subject and its neglect of aspects of social welfare. The second set addresses methodology. Examples of the latter are Solow (2008) and a more nuanced appreciation by Blanchard in the same year. More radical denunciations were made by Skidelsky (2011), the biographer of Keynes. Of course, others sprang to the defence of the discipline and its dominant schools¹. There was a brief flurry of interest in unorthodox economists like Hyman Minsky after the financial crisis that triggered the recession, since his work predicted the likelihood of such events. Government also resorted to Keynesian budgetary expansion measures. Both the interest and the measures were, however, generally short-lived and orthodoxy in both doctrine and policy was broadly re-established. Subsequently there has been a period of low growth and low inflation by historical standards until the shocks of the Covid epidemic and the Ukraine war and associated effects on gas and oil prices.

This article does not dismiss other concerns but addresses only the second area of criticism, methodology. It argues there are two conspicuous symptoms of an underlying malaise.

1. The leading edge detaches from the rest of the hydrofoil.

There is a large apparent breach between what is written by top academics in learned journals and taught to graduate students and the working hypotheses and practices of the majority of practitioners, economists working in government departments, public bodies, corporations or financial institutions. The academics remain committed to the development of representative agent models where the economy is analysed “as if” it is a single representative consumer, a single private company (the producer) and the government or monetary authority. The private consumer and producer share consistent expectations of the future. Moreover, these are correct up to a white-noise error process. That means errors are never of the sort that make people learn or change their mind². Given this set-up people are able confidently to optimize consumption or profits over the far future. Consumers know their “bequest motive” estimate their lifetime income, know their rate of time preference and the interest

¹ E.g. Reis (2018)

² A faithful characterization at least of the behaviour of some economists but a crazy assumption all the same. See Hendry and Mizon (2014)

rate so launch a dynamic programme optimizing consumption over their lifetime. Producers are equally clairvoyant.

These assumptions abolish all the co-ordination issues and failures that are the traditional subject of macroeconomics and mean the economy is in a continuous equilibrium, disturbed only by exogenous shocks of an unspecified nature. These shocks, however, are generally well-behaved “white noise”. The economy exists in a state of “dynamic stochastic general equilibrium”. That cannot be affected by any systematic government action, which has already been anticipated by the private sector. The government can affect output only by “surprises”. These are allowed to have a temporary effect because of a gap in the information sets of consumers – they cannot tell a general inflation from an increase in their own income. That gives rise to the Lucas supply function³.

Most observers would characterize the real situation as follows: people are told the inflation rate every month; they can read it in the news media where it gets adequate publicity. Moreover, they go to the supermarket and should be able to tell whether their income is going further or not. For the most part they do not understand how the economy works in any detail (in common with economists) and they certainly cannot foretell the future with only white-noise errors. In modelling by assuming the precise contrary on every count we would appear to be going through the looking glass. It is no wonder that we end up in Wonderland.

Evidently models of this kind are no help to practitioners in understanding and forecasting the vagaries of the business scene (or “cycle” as it is inaccurately known). They persist in believing and acting as if markets can generate endogenous oscillations and governments can and do influence output and inflation, certainly not always for the better.

To be fair to academia, it has realized that the pure DSGE model is incapable of explaining observable phenomena so they have introduced numerous amendments, known, oddly, as “imperfections” in the model. Long-term nominal contracts, other labour market frictions, imperfection in credit markets, all these and more are prayed in aid and, either rigorously or more usually ad hoc, introduced into the model, generating lags that mean it can be represented as fitting the data. Most central banks have a modified DSGE model of this kind⁴.

Yet the “great split” persists because the models are restricted by the tightness of their specification from incorporating a host of available data. Data on expectations, for example, are inadmissible in an RE model. Central banks therefore have a DSGE model and a plethora of relevant data from surveys, detailed national accounts or financial markets that is assessed judgmentally. They claim to look at both but it would be unsurprising if the informal data took precedence.

Practitioners in general certainly look at the full range of data and make their guesses based on the evidence and their intuition, which is usually shaped by earlier generations of economic models be they Austro-Schumpeterian, Keynesian or Monetarist. This does not seem entirely healthy. A harsh verdict would be that the practitioners have been deserted by the leading edge which is more interested in exploring the properties of imaginary worlds than in analysing this one.

³ Lucas (1972)

⁴ These modified models are often referred to as “New Keynesian”, presumably because the dead cannot sue for defamation. The representative agent construct defies the rules of aggregation; strictly it is appropriate only if everyone is identical. Some of the refinements rely on acknowledging that people are diverse. The construct is therefore often intellectually incoherent.

2. *Making weather forecasters look respectable* ⁵

An IMF study has shown that the standard of economic forecasts is poor with a particular inability to foresee recessions⁶. Indeed, my impression is that there has been no improvement in the forecasting ability of institutions and their economic models in half a century.

Many would argue that of course forecasts are impossible (while building RE models!) and this is not a test of the usefulness of theory, which is about explanation (“as if?”). Milton Friedman was not so evasive and held that models should be judged by their predictive power.⁷

The failure is all the more striking when you consider the context. Standardised national accounts were launched in 1960, though a few countries had accounts going back to the 1950s. In 1975 someone at the OECD would have been trying to make sense of 15 annual or 30 semi-annual observations of trending, collinear data. There was no obvious way to discriminate between theories. Now fifty years later there are hundreds of observations of quarterly national accounts, numerous surveys of consumer confidence, investment intentions, purchasing managers expectations, etc. produced by private and public bodies. There is also a mass of financial data, including on derivatives from which information can be extracted on expectations and attitudes to risk.

Moreover, a high-specification lap-top now offers greater computing power than the mainframe computers in use at organisations like the OECD 50 years ago, access to which was shared by dozens of analysts.

Finally econometrics has made considerable strides in 50 years. No longer is it acceptable to blithely run regressions on non-stationary data, make a “specification search” and then pretend the statistics of significance are meaningful. Now we can tell spurious from real correlations by co-integration and vector co-integration tests; we can combine those with vector autoregressions to encompass and test causal models for data consistency. We have tests for breaks in the data generating process, for weak and strong exogeneity and if we have unobservable variables we can use recursive estimation techniques like Kalman filters.

Yet with immensely more data, more computing power and much better statistical resources our forecasting has hardly improved, if at all. It is hard not to blame macroeconomic theory for this stagnation.

And those refined econometric techniques tend to confirm the indictment. Katerina Juselius has used cointegrated VARs to test both pure REH models and the “new-Keynesian” variants. Her conclusions are stark: “our CVAR results have consistently rejected mainstream macroeconomic models – also the new-Keynesian ones - but have been supportive of more traditional Keynesian models”.⁸ In the United States, Stock and Watson adopted a technique for examining the effects of many more variables than a DSGE model can readily accommodate. They used a combination of factor analysis to reduce the

⁵ The joke originates with J.K. Galbraith, who reportedly said “The only function of economic forecasting is to make astrology look respectable”.

⁶ An, Z, Jalles J T and Loungani (2018)

⁷ Friedman (1953)

⁸ Juselius (2023) gives many additional references

dimensionality of the data set and VAR. (FAVAR). They too found results incompatible with much orthodox theory but which seem to accord with experience in the post-2008 era⁹.

Why have we not done better?

I believe there are several reasons for the sterility of macroeconomics in recent decades but one predominates. There has been a consistent failure from 1936 and the General Theory onwards to separate the “is” from the “ought”. Economics is about the organization of an important set of social relations, about how they should be organized and managed. As such the subject is political. Economists can range from extreme libertarians to socialists. It is inevitable and appropriate that ideological debates should rage. They have not done so openly, however. Instead, ideological propositions have gone underground and re-emerged masquerading as analysis.

Nearly all macroeconomic theories are best viewed not as attempts at scientific elucidation but as exercises in persuasion. They are a series of Aesopean fables, catchy and with a clear moral but not primarily concerned about real-world verisimilitude.

The main focus of debate has been about the role of government. For forty years from 1936 the tide was overwhelmingly for more government. Keynes was desperate to see unemployment down from 15 per cent to 5 so he told a story that gave the government licence to do it using state deficits¹⁰. After the second world war governments used these techniques to get unemployment down from -not to! - 5 per cent. Harrod and Domar and Nicholas Kaldor also piled in with models implying governments needed to be busy. These models were mental constructs based on “stylized facts” a code-term for “no real data”. The American Keynesians came in with Kennedy and successfully raised the growth rate from 2 per cent to 4 and inflation from 2 to 4 as well. Then the US decided to introduce a rudimentary welfare state (The Great Society measures) and fight the Vietnam war without raising taxes. The world was flooded with dollars, the dollar exchange system broke down and general floating of exchange rates removed a price peg. Inflation crept up everywhere, hugely magnified by the oil-price shocks of 1974 and 1979.

The tide turned. The problem was no longer perceived as unemployment occasioned by the instability of the market economy but as inflation occasioned by government excess. The focus of models shifted to demonstrating that governments could do no good by attempting to steer the economy and should leave it alone.

A forensic approach would have said: Keynesian theory does not tell us when employment is “full”. Moreover, Phillips curves are very unstable and cannot be used to choose the unemployment rate consistent with acceptable inflation. Attempting to smooth routine fluctuations in economic activity (other than via automatic stabilisers) is more likely to be destabilising given the inside and outside lags in fiscal policy so don’t attempt it. Keep it for a real recession if one eventuates. Moreover Keynesians had no theory of inflation at full employment¹¹ and often resorted to wage-price controls, which tended to work only in small countries like Austria and the Netherlands.

⁹ Stock and Watson (2005) see also commentary by Blanchard (ibid)

¹⁰ Keynes himself said economics was “a moral science and not a natural science” and was suspicious of the efforts of Tinbergen and others to give it statistical corroboration.

¹¹ As noted by Kalecki in 1943, who predicted “political” business cycles to discipline workers and control inflation.

However, remember persuasion is the game and the foregoing message is not strong enough. Instead governments were told fiscal policy is wholly ineffective unless accommodated by monetary policy so don't use it for stabilization ever; leave that to monetary policy. Moreover, you can't influence unemployment with macro policy; any deviation from a unique "natural" unemployment rate (NAIRU) will lead to accelerating or decelerating inflation. Over-egg that pudding and the next stop is the Weimar republic. The sole purpose of monetary policy should be to control inflation, which it can easily do.

Friedman and Phelps were highly successful with those models that helped to change the policy climate and that was no doubt salutary. But it is important to notice that neither model has much empirical justification as Gordon, among others, pointed out¹². Fiscal policy can work as was established in 2008 and again by Biden recently. While monetary control has turned out to be complicated. And all attempts to find a NAIRU empirically were abject failures. It turned out to be no more stable than the Phillips curve it replaced. Moreover, no OECD government has ever induced a Weimar inflation with excessively expansionary policy. Indeed, they need severe terms-of-trade shocks to get inflation into double digits. We haven't seen double digits without such a shock. The accelerationist model is not particularly plausible and a safe inference is a unique NAIRU does not exist¹³. It joins the neutrality of money and Rstar as artefacts in persuasive models that have no correspondents in actual data¹⁴. They are invariants in our minds but not in reality.

The get-the-government-out tendency has persisted to the present day. Kydland and Prescott told governments everyone knew they would renege on pledges so monetary policy should be left to a central bank whose officers didn't need to seek election. The tendency reached its apogee with Robert Lucas and the New Business Cycle Models, which implied that governments could never do anything except create temporary instability. Lucas hardly bothered to disguise his intention. He said "I'm not sure whether you will take this as a confession or a boast, but we are basically story-tellers, creators of make-believe economic systems."¹⁵ If the moral is right, who cares if the story reflects reality?

The fear of public sector failure and the distorted incentives facing democratic politicians is a wholly reasonable concern. A good product of this fear has been institutional reforms, like the creation of "wise men" oversight bodies, like the Office of Budget Responsibility in the UK, and the increased independence of central banks in OECD countries. A bad product has been the distortion of economic theory via models that are designed to make a point, facilitated by a highly tendentious approach to data. These theories have rendered stabilization policy severely inefficient; witness "quantitative easing"¹⁶.

¹² Gordon (2018)

¹³ See [Klein](#) 2017

¹⁴ Davies (2016) takes an indulgent view of RStar but his graphs reveal a will o'the wisp. The "Taylor rule" is too simple. There is surely no single rate which balances the economy but a whole loosely- articulated structure of rates. Many such structures may be compatible with different macro balances, and none is uniquely determined by the policy rate.

¹⁵ Lucas (2011)

¹⁶ The Bank of England, for example, bought bonds creating over £800 billion of excess bank reserves in an effort to stave off a feared deflation. It distorted asset prices but had little perceptible effect on the "real" economy or prices of goods and services. A phone call to the Finance Minister offering an overdraft for expanding the public deficit by an extra 1 per cent of GDP would have generated £20-30 billion of excess reserves and surely had more effect on nominal GDP. Distorting asset markets and increasing the public's debt service bill is considered less heinous than even limited, central-bank controlled, monetary finance of the government deficit.

For one feature of contemporary economic policy making, however, economic theory cannot be blamed. Most economic theory does not sanction the use of monetary policy for fine-tuning economic fluctuations, real or nominal. Yet that is where we have somehow ended up, with the risible spectacle of commentators blaming central banks for the surge of inflation after the outbreak of Covid and war in Ukraine – a surge to which they did not really contribute and were utterly powerless to prevent. Fine tuning with monetary policy is an even more futile exercise than attempting it with fiscal policy. It follows that central banks cannot be held responsible for year to year fluctuations in nominal GDP, only for sustained multi-year tendencies in inflation contrary to government-set targets.

Is there hope?

It would be nice to think economics can become more empirical and study what people do, rather than assume they do what is convenient from the ideological perspective of one's armchair. Then the relative perils of market instability and government failure could be assessed empirically and debated ad hoc rather than via competing fables. More exacting empirical tests and standards would help and a readiness to grapple with complexity rather than keeping it (too) simple to make a point. Andy Haldane's Shackle lecture of 2016 referring to so-called Agent Based models points one promising way ahead. Accept the complexity and simulate it without getting hung up on neat "solutions" or "equilibrium". You have never seen an economic equilibrium, Pareto-efficient or otherwise, and my advice is don't hold your breath. So why should economics assume they are ubiquitous? Economic activity consists of processes, adapting with procedural rationality¹⁷ and unfolding through historical time against a background of constant change and great uncertainty. We need to study and simulate those processes and not attempt to replace them in our analysis with the first order conditions required for a fictitious and tendentious equilibrium.

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¹⁷ Procedural rationality as opposed to substantive rationality (i.e. omniscience) was the distinction and research proposal of Herbert Simon in his great works *Models of Man* and *The Sciences of the Artificial*, which charted the road not taken in macroeconomics but had a formative influence in psychology and on AI studies (both of which have made more progress than macro).

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