"Escape from model-land" by Erica L. Thompson and Leonard A. Smith Thompson: a comment

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The authors provide a timely health-warning on the dangers of taking model simulations too literally. The idea that outputs from model-land may be (mis)taken for reality is, perhaps, an example of what the philosopher Alfred North Whitehead called the Fallacy of Misplaced Concreteness. While the text focuses mainly on examples from forecasts of weather and climate change, the special issue for which it is submitted is “Bio-psycho-social foundations of macroeconomics”. With reference to macroeconomics, there is, I believe, a topical example of Misplaced Concreteness that could well be cited.

I refer to the adoption of DSGE (Dynamic Stochastic General Equilibrium) models by many Western academics prior the financial crisis of 2007-9; and also by many Western Central Banks - including in particular the ECB – as a guide in policy-making. Central Banks appreciated that the recommended policy rules for setting interest rates had an elegant theoretical base; and that the model produced precise numerical estimates of the effects of policy.

On the assumption that financial markets are ‘efficient’, however, these models did not include a financial sector covering money and banking. Because this, the threat of imminent banking collapse that emerged in 2007/208 constituted a Big Surprise to which zero probability had implicitly been assigned. To conclude, as some have done, that one simply needs to add a financial sector runs the risk of rendering the DSGE approach unfalsifiable. Indeed, if any failure, no matter how large, is treated as a call for further extension to the existing approach, there will be no escape from model-land!

The authors offer two routes for escape: testing out-of-sample, and checking with expert opinion. To these could be added two others. First, to avoid a ‘silo’ mentality, as advocated by George Akerlof (1984), who criticised standard economics for ignoring anthropology and psychology, and more recently by Haldane and Turell (2018). Second to look more carefully for lessons of economic history. Thus Paul Romer (2016) points out the glaring contradiction between DSGE model and the evident effects of tight US monetary policy under Paul Volcker in the early 1980s; while the economic historian Adam Tooze (2018) describes how the growth of cross-border banking posed a potent threat to the stability of global finance in the 21st Century.

References

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