Four Missing Ingredients in Macroeconomic Models

It is refreshing to see top academics questioning some of the assumptions that economists have been using in their models. Paul Krugman, Brad DeLong and many others are opening a methodological debate about what constitutes an acceptable economic model and how to validate its predictions. The role of micro foundations, the existence of a natural state towards which the economy gravitates, are all very interesting debates that tend to be ignored (or assumed away) in academic research. I would like to go further and add a few items to their list that I hope could become part of the mainstream modeling in economics. In random order: 1. The business cycle is not symmetric. Most macroeconomic models start with the idea that fluctuations are caused by a succession of events that are both positive and negative (on average they are equal to zero). Not only is this an incorrect representation of economic shocks but also leads to the perception that stabilisation policy cannot do much. Interestingly, it was Milton Friedman who put forward the “plucking” model of business cycles as an alternative to the notion that fluctuations are symmetric. In Friedman’s model output can only be below potential or maximum. If we were to rely on asymmetric models of the business cycle, our views on potential output and the natural rate of unemployment would be radically different. We would not be rewriting history to claim that in 2007 GDP was above potential in most OECD economies and we would not be arguing that the natural unemployment rate in Southern Europe is very close to its actual. 2. As much as the NBER methodology emphasises the notion of recessions (which, by the way, is asymmetric in nature), most academic research is produced around models where small and frequent shocks drive economic fluctuations, as opposed to large and infrequent events. The disconnect comes probably from the fact that it is so much easier to write models with small and frequent shocks than having to define a (stochastic?) process for large events. It gets even worse if one thinks that recessions are caused by the dynamics generated during expansions. Most economic models rely on unexpected events to generate crisis, and not on the internal dynamics that precede the crisis. My paper with Ilian Mihov on the shape and length of recoveries presents some evidence in favor of these two hypothesis. 3. There has to be more than price rigidity. Keynesian models rely on price rigidity to explain business cycles and why demand matters. There is plenty of evidence that price rigidities are important and they help us understand some of the features of the business cycle. But there must be more than that. There are other frictions in the real economy that produce a slow adjustment and are responsible for the persistence of business cycles. They might not be easy to measure or model, they might be different across different economies but it is difficult to imagine that an adjustment of prices and wages to its optimal level would automatically restore full employment. Larry Summers referred to
these frictions in his recent IMF conference speech although he did not elaborate on them. 4. The notion that coordination across economic agents matters to explain the dynamics of business cycles receives very limited attention in academic research. It sometimes appears in our economic policy debate (e.g. Olivier Blanchard (at the IMF) has referred to multiple equilibria as a way to explain the sovereign-debt crisis in Europe) but it does not receive the credibility it deserves in academia. I am aware that there are plenty of papers that deal with these four issues, some of them published in the best academic journals. But most of these papers are not mainstream. Most economists are sympathetic to these assumptions but avoid writing papers using them because they are afraid they will be told that their assumptions are ad-hoc and that the model does not have enough micro foundations (for the best criticism of this argument, read the latest post of Simon Wren-Lewis). Time for a change?

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