

This is an intriguing article which offers a distinctly original approach to the business cycle. Unlike much of the literature in this area, the authors confront their theory directly with the data.

So there is much to be applauded about this article. Ultimately, however, it is not persuasive.

The title of the paper makes the claim that the authors have discovered a ‘universal’ shape of economic recession and recovery after shock. This is true only in the trivial sense that in a recession output falls and in a recovery it rises.

The authors postulate a functional form which, when estimated for the experience of 23 countries, fit the data well. However, the parameters vary substantially across individual countries. So what has been discovered is a non-linear function which, when fitted to 23 data sets individually, gives a reasonable approximation to the data.

In passing, I note that the details of the estimated equations do not provide tests of validity of specification which is now standard in time-series analysis with in economics. There are certainly limits to the usefulness of such tests, and in particular in many papers the reported equations have been re-specified until they pass the tests. But nevertheless some tests of validity (e.g. white noise residuals) should be presented.

The main problem with the claim to a ‘universal’ shape is that the pattern of recessions in capitalist economies is quite different to the countries used in this paper.

Most recessions under capitalism are very short. Ormerod (*Risk Management*, 2009, forthcoming and www.paulormerod.com) examines all recessions in 17 Western economies 1871-2007. Defining a recession in the standard way as being a year in which real GDP growth is less than zero, 71 per cent of all capitalist recessions lasted just 1 year, and 92 per cent for either one or two years. Using the alternative definition of the number of years for which real GDP remains below its previous peak level, 59 per cent last just one year and 79 per cent last for one or two.

Essentially, most recessions under capitalism are inventory cycles. Producer expectations become slightly too optimistic, and a cut back in inventories and fixed investment is required. This is why most recessions in capitalist economies are of very short duration.

This brings me to the discussion in the paper of the two sector economy, one with activity intrinsically growing, and the other intrinsically shrinking. This is simply **not** what happens during (almost all) recessions.

Different sectors of an economy obviously have different experiences during an given recession, but the key feature of capitalist recessions is that there is a strong positive cross-correlation between the sectors. This insight goes back at least as far as Lucas (1977). The reason why we are able to speak of a ‘business cycle’ is precisely this point. A simple time series plot of most countries’ annual GDP growth is sufficient to disabuse

anyone of the idea that there is in any mathematical sense a strongly defined cyclical pattern in the data.

Finally, the authors have chosen a time period (approximately 1990 to 2005, the precise period varying across their sample) in which, most unusually, most countries have experienced only one recession. Recessions are typically more frequent than this, a fact which most people are currently re-discovering.

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