ROYAL ECONOMIC SOCIETY

NEWSLETTER

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The conference issue

This year's Annual Conference took place at Royal Holloway University of London just as the April issue went to press. We were able to squeeze in the Secretary-General's Annual Report but the report on the conference proceedings inevitably took longer and is printed here. Readers who are familiar with the conference will raise a wry smile at Aditya Chakrabortty's discovery that economists are prepared to talk even when no one is listening. We've read this comment in earlier conference reports though may be not so explicitly expressed.

The April issue also contained an article by Philip Booth and Len Shakleton which defended the current austerity package in the UK against a number of attacks. In this issue we have a reply from Vicky Chick and Ann Pettifor. There is also a letter on the subject from Christopher Gilbert. So, after a slow start, we do seem to have provoked a debate about current economic policy — one of the purposes for which the *Newsletter* was originally conceived.

Being the April issue, we also have Ray Rees's 'Letter from Germany' wherein he discusses the recent scandal of plagiarism in a politician's PhD. There are also some interesting insights into the role of the PhD amongst German professionals.

Leaving aside the Society's news items and conference diary, this issue ends with a major feature by David Autor which we have just managed to shoehorn into the available space. This looks at a worrying trend in (but not confined to) the US labour market, whereby the market increasingly favours the skilled and educated at the expense of the unskilled.

In the middle of the cricket season, it might also be appropriate that we have a tongue in cheek look at the connection between the sport and economic growth and development.

In this issue —

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The Ricardian Vice anno 2011

Thomas Colignatus takes a critical look at what is often referred to as the 'Ricardain Vice' and explains the relevance of its proper meaning to the recent crisis.

When economists evaluate each other's work they may sometimes refer to the 'Ricardian Vice'. Schumpeter in his *History of Economic Analysis* (1954) created that term with respect to David Ricardo (1772-1823). Kurz (2008) clarifies: 'It was intended to highlight Ricardo's alleged habit of introducing utterly bold assumptions into an already oversimplified representation of the economy and treating these as givens when in fact they are unknowns.'[1] The term found its way into the literature.[2] Brad DeLong (2011) uses the term with respect to current austerity by governments,[3] an issue now sometimes called 'deficit fetishism'.[4] These two issues are not to be equated however. The issue of the deficit is a particular instance while the Vice is a general phenomenon, and Delong with his recent *Seven Sects of Macroeconomic Error* indeed widens the scope. However, we now have the problem that Kurz rightly suggests that Schumpeter did not quite get the point so that the proper term would be 'Schumpeterian incomprehension'. Thus we now have a section of economic literature that is based upon a misconception. Rather than conclude that all this literature is nonsense it seems better to reconsider the term since there still is some useful element in it.

Let us define the Ricardian Vice as taking the (mathematical) model as reality, but not just that, but rather to overindulge in it and take the wrong model to tackle reality. The proper Vice is the relative interpretation, i.e. the overindulgence rather than the absolute position. Schumpeter took an absolute position but then the notion is self-defeating. Since no one knows reality for sure, we are all at risk of suffering from the vice. Making models is the best way to deal with uncertainty about reality, and the distinction between 'model' and 'reality' tends to become rather academic. When we discuss reality we do this unavoidably in terms of models. Statistical data and historical overview are required to put a check on overindulgence — but these depend upon models too.

The theory of statistics provides us with the Type I and Type II errors that allow us to define the relative interpretation of the Ricardian Vice anno 2011. To sail between the Scylla and Charybdis of these errors we require model-hopping for the best model at the right moment. The Type I error is that the model is right but the data cause us to reject it. The Type II error is that the model is wrong but the data fail to reject it. In the latter case we have a clear view on the data but they are insufficient themselves. The Ricardian Vice in 2011 can be defined such that the model is wrong but we fail to recognize that the evidence tells us to reject it. The data are sufficient for a rejection but there is human error in interpretation. This proposed new definition does not imply that Ricardo suffered from it, though Schumpeter (above) and Malthus on the state of market demand in Keynes's *Essays in biography* might have thought so. In economic discussion we then indeed have some economist explaining that another economist misinterprets the evidence.

For those who like to worry: the situation is more complex since also the statistics of the Type I and Type II errors are under discussion. Mandelbrot and Taleb in the *Financial Times* 2006 clarified that the dominant approach in financial mathematics neglected the modelling properties required for real risks.[5] It is a moot point how this relates to deregulation of financial markets and the adoption of DSGE models — but there clearly is a relationship to the onset of the economic crisis that broke out into the open in August 2007. Engineers appear to have a moral tradition with respect to bridges that can collapse which tradition appears to be absent with financial quants who design products that may collapse too — see Steinsaltz 2011.[6] Roubini and Mihn reject the 'black swan' idea and provide a longer time frame in which such collapses are normal phenomena.[7] Another example comes from McCloskey and Ziliak *The cult of statistical significance* in 2007: how Sir Ronald Fisher with his mathematical preoccupation with 'existence' overshadowed William Gosset with his more practical interest in effect size. Empirical research has been getting dominated by Fisher's approach. What is trivial to a statistician may not be so for a user — see also Andrew Gelman's comments on this debate.[8]

For those who really love to worry there is finally this paradise: mathematicians can be in error even with respect to mathematics itself. While economists can suffer the Ricardian Vice by adhering to their mathematical models, the mathematicians who support those models can be subject to the Ricardian Vice even w.r.t. mathematics itself. Mathematicians are trained on abstract theory but when they appear as teachers in front of a class then they meet with real life pupils, and suddenly didactics appears to be an empirical science that they have not been trained for. The mathematical curriculum appears to be dominated by tradition and not by didactics.

A good education in econometrics covers economics, statistics and mathematics. Drawing from these sources I

have had the good fortune of just completing a primer for mathematics education — *Conquest of the Plane* March 2011. A tiny example from a huge collection is the following. Compare 2½ for 'two and a half', where the position next to each other means addition, with $2x$ for 'two times x' or $2\sqrt{2}$ for 'two times the square root of two', where the position next to each other means multiplication. The positions next to each other thus are interpreted differently, and pupils must be trained to see the difference. This also means that we must make sure that there is a space in between in 2 ½ that simplifies to 1. This tradition of different interpretations of positions is curious but it might still be acceptable when we use typesetting with fixed places. The tradition however is asking for problems in handwriting when a pupil may write 2½ as 2 ½ or conversely, and thus slip into error. The solution is to abolish the notation 2½ and to keep 2 + ½ so that the '+' may also be an end-station. This is similar to the case that $\sqrt{2}$ can be an end-station and need not be expanded in decimals as 1.414… It takes a huge amount of time to train pupils now to write 2 + ½ as 2½ (and not reduce this to 1) and the only reason is tradition for tradition's sake.

Conquest of the Plane supports my earlier *Elegance with Substance* (2009)[10] and is proof that a good math course is possible. The main conclusion is that other fields like economics, physics, etc. should put a check upon the industry of mathematics education. Children suffer needlessly, and our economies suffer the consequences of a misdirected education in maths.

For the current debate on the economy, *Conquest of the Plane* may incidently be useful too since it presents the difference between the partial and total derivative and uses the marginal tax rate as an example. Economic policy makers are focussed on the partial derivative but the true model for reality is the total derivative.

Notes:

1. Heinz Kurz (2008). 'Ricardian Vice', *International Encyclopedia of the Social Sciences.*

2. For example Chetan Parikh (2010), 'Abstract Model-Building, Mathematics, and the Ricardian Vice', Capital Ideas Online.

3. Brad DeLong (2011) citing Paul Krugman on 'John Maynard Keynes on the Ricardian Vice', http://delong.typepad.com

4. Royal Economic Society *Newsletter*, July 2010 and April 2011

5. http://www.fooledbyrandomness.com/

6. David Steinsaltz (2011), 'The Value of Nothing: A Review of The Quants', *Notices of the American Mathematical Society*, May 2011, http://www.ams.org/notices/201105/

7. Nouriel Roubini & Stephen Mihn (2010, 2011), *Crisis economics*, Penguin

8. http://www.stat.columbia.edu/~cook/movabletype/archives/2009/02/mccloskey-et-al.html

9. http://www.dataweb.nl/~cool/Papers/COTP/Index.html

10. http://mpra.ub.uni-muenchen.de/15676/