

ANNOUNCEMENT

The A R Bergstrom Prize in Econometrics: 2010

We are pleased to announce award of the A R Bergstrom Prize in Econometrics for 2010 to David Baqaae, PhD student, Harvard University, for his paper “Using Wavelets to Measure Core Inflation: the Case of New Zealand”. David’s paper was completed while employed as an Economic Analyst at the Reserve Bank of New Zealand.

The object of the Prize is to reward the achievement of excellence in econometrics, as evidenced by a research paper in any area of econometrics. The Prize is open to New Zealand citizens or permanent residents of New Zealand who, on the closing date for applications, have current or recent (i.e. within two years) student status for a higher degree. The Prize is awarded once every two years, with a value of NZ\$2,000.

The citation that accompanies the award reads as follows:

David Baqaae’s paper develops a wavelet measure of core inflation for New Zealand. Wavelet methods can isolate short-lived phenomena in a signal, and provide a natural approach to constructing core inflation from headline CPI inflation. David’s suggested Wavelet Inflation Measure (WIM) uses the maximal overlap discrete wavelet transform with the Haar wavelet family and linear thresholding (discarding the noisiest daughter wavelets). The WIM is tested against alternative core inflation measures (e.g. weighted median and trimmed mean) to assess its denoising and forecasting performance. The WIM is shown to have good real time properties and is more coherent with headline inflation than the alternatives. Relative forecasting performance varies, depending on series “padding” at endpoints and whether autoregressive models are applied to the aggregate WIM or individually to the different resolution wavelets. Multi-resolution WIM forecasts of headline CPI inflation tend to outperform forecasts from alternative core inflation measures, but vice-versa for aggregate WIM forecasts. Diebold and Mariano tests indicate that the differences are often not statistically significant. Similarly, a Cogley test indicates that inflation forecasting performance is similar for all of the core inflation measures tested. In sum, the paper breaks new ground in the construction of core inflation measures for New Zealand.

The Adjudication Committee for the 2010 Award comprised Professor Viv B Hall of Victoria University of Wellington, Dr. Leo Krippner of the Reserve Bank of New Zealand, and Professor Peter C B Phillips of Yale University, the University of Auckland, the University of Southampton and Singapore Management University.

V.B. Hall & P.C.B. Phillips
August 2010

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In addition, royalties from the Festschrift Volume *Models, Methods and Applications of Econometrics: Essays in Honour of A.R. Bergstrom*, P.C.B. Phillips (ed.) Blackwell, Cambridge MA and Oxford UK, 1993, and from *A Continuous Time Econometric Model of the United Kingdom with Stochastic Trends*, by Albert Rex Bergstrom and Khalid Ben Nowman, Cambridge University Press, 2007, are applied to support the prize.