

Volume 28, Issue 1

Research Announcement

Inaccurate approximations in the modeling of hyper-inflations

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Abstract

In time series macroeconometric models, the first difference in the logarithm of a variable is routinely used to represent the rate of change of that variable. It is often overlooked that the assumed approximation is accurate only if the rates of change are small. Models of hyper-inflation are a case in point, since in these models, by definition, changes in price are large. In this letter, Cagan's model is applied to Hungarian hyper-inflation data. It is then demonstrated that use of the approximation in the formation of the price inflation variable is causing an upward bias in the model's key parameter, and therefore an exaggeration of the effect postulated by Cagan.

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Citation: Evens SALIES and Peter MOFFATT, (2006) "Inaccurate approximations in the modeling of hyper-inflations", *Economics Bulletin*, Vol. 28 no.1 p.A1.

Submitted: January 08, 2006 Published: January 10, 2006.

URL: http://www.accessecon.com/pubs/EB/2006/Volume28/EB-06AA0001A.pdf