"Frequentist evaluation of small DSGE models" by Gunnar Bardsen and Luca Fanelli

Discussion by
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The usual disclaimer applies

- New method to assess empirical reliability of NK-DSGE models (misspecification test)

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- **Joint** (multiple-hypothesis) test of **low** and **high** frequency restrictions which the **small-scale** NK-DSGE model places on its reduced-form VAR solution

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- Gunnar and Luca purpose is to show that the frequentist cointegrated approach can also be extremely useful for empirically evaluating DSGE models

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  1. cointegration rank (LR1 test)

  2. over-identifying cointegration restrictions (LR2 test)

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- Version of the test procedure in case of unobservables

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- More generally, restrictions across cointegrating vectors naturally arise from microfoundations of DSGE models. Not clear if and how they are tested in you procedure

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Misspecification test as a guidance for theory

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- Chari et al. add **"wedges"** into structural equations of the basic RBC model and estimate them, to get information about possible directions for improving coherence between the **structural** equations an the data

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Transmission mechanism of estimated stochastic trends

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- With forward-looking households, permanent shocks can imply implausible (short-run) responses of variables of interest; hence, the model would not be fully plausible

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Misspecification test and VAR representation

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- Can the test be applied to DSGE that do not have finite-order VAR representation?

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- Wild boostrap? Boostrap evaluation in case of state-space representation?

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- **THANKS!!**