

Discussion of "Procyclical Fiscal Policy: Shocks, Rules, and Institutions - A View From MARS" by Paolo Manasse (UniBO)

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Procyclical fiscal policies: Evidence and Some Theory

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- Typical set up: *Linear* reaction functions linking surplus to gap, debt, controls

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- To detect piecewise linearity: MARS (Multiple adaptive regression splines) applied to a large panel of countries
- In short: Select the "knots" within the domain of each regressor to partition such domain in pieces in order to allow for potentially relevant non-linearities (criterion: corrected MSE)

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- Different reaction of fiscal policy to shocks in developed vs. developing countries due to different shocks

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- Reveals and assesses the danger of model misspecification

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- "over-adaptation" of the model to the data
- miscellaneous

Parameter stability in a linear world: The U.K. case

- Estimated linear fiscal policy rule for the U.K., sample 1972-2004

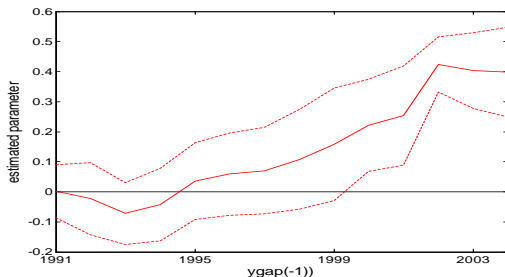
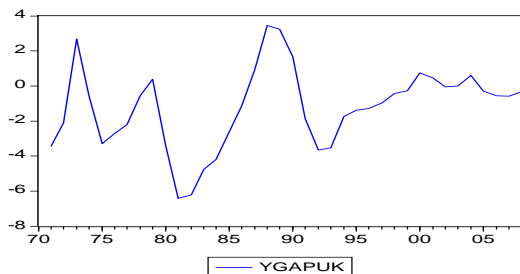


Figure: Surplus reaction to output gap fluctuations (rule: Manasse (2006)'s): My own estimates (20-year rolling window)

The U.K. business cycle



- Apparently, no match between 'booms' and 'acyclical behavior' or 'recessions' and 'procyclical behavior'

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- MARS may be capturing some of the previously shown instability, but I would be curious to see a subsample analysis
- '82-'04, much more stable period in several countries (Blanchard and Simon (2001)): Same picture in terms of estimated parameters/"knots"?

- Estimated linear fiscal policy rule for the U.K., sample 1982-2004, different fiscal indicators

FI	S/Y	G/Y	T/Y
Gap_{t-1}	0.30** (0.13)	-0.40** (0.15)	0.01 (0.08)
$Debt_{t-1}$	0.24*** (0.03)	-0.19*** (0.03)	0.05* (0.03)
Fl_{t-1}	0.71*** (0.11)	0.66*** (0.13)	0.86*** (0.06)

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- Evidence in favor of different elasticities (e.g. Alesina and Tabellini (2005))
- Interesting to investigate this issue with MARS (clusters, e.g. developed vs. developing countries, "free" vs. "constrained" countries (in terms of fiscal rules), ...)

Other type of non-linearity: Regime-switches!

- Theoretical framework by Leeper and coauthors (several contr.): Monetary and Fiscal policies may be active/passive, in models with no expected policy switch this may lead to indeterminacy/instability, in models with expected switch uniqueness tends to prevail

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- Can we square your way of treating non-linearities with theirs?

Too many "knots"?

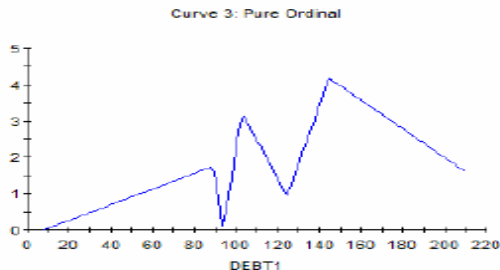


Figure: Source: Manasse (2006) (MARS Model with Fixed Effects, Fiscal Rules, Institutions: No Interactions)

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Marginal contribution of the 4th or 5th knot to the MSE?

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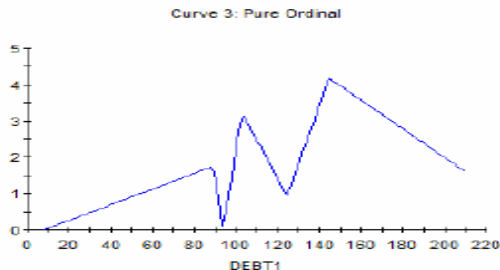


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- Highly sophisticated fiscal policy or "over-adaptation" to the data? Marginal contribution of the 4th or 5th knot to the MSE?
- Limit the number of possible knots according to your priors/theory

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- Country differences in terms of reactions? (see Alesina and Tabellini (2005))
- Developed vs. developing countries: Different default options (see Yui Suzuki's webpage, i.e. <http://www-personal.umich.edu/~yuis/>)