

Discussion of the paper "Nelson-Plosser revisited: the ACF approach" by Karim Abadir, Giovanni Caggiano, and Gabriel Talmain

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 - 1 stabilization policies: one may want to know what the impact of a shock is, in order to understand if / how to tackle it
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- Long-lasting discussions in theoretical and empirical macro

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- What's the problem? Policy implications!

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- Nelson and Plosser (1982,JME): Most of the macro time-series are DS.

NP triggered quite an intense reaction!

- Empirical contributions to understand if processes as AR, ARMA, ARIMA, ARFIMA, ... policy reaction is a function of the model fitting the data! Actually, the world is more complicated (i.e. non-linear) then TS vs. DS processes suggest ...

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- AT (2002)'s result: New stylized fact! ACF exhibits an initial concave shape, followed by a sharp drop (U.S. and U.K. data validate the prediction)!

Btw, what's the ACF?

- The ACF $\rho_1, \rho_2, \dots, \rho_n$ of a process $\{\pi_t\}_{t=1}^T$ is defined as the sequence of correlations of the variable π_t with its $\tau - th$ lag, i.e.

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- ACF is informative, a model should fit the ACF well, otherwise misspecification, bad measurement of persistence, bad policy decisions, bad times ...

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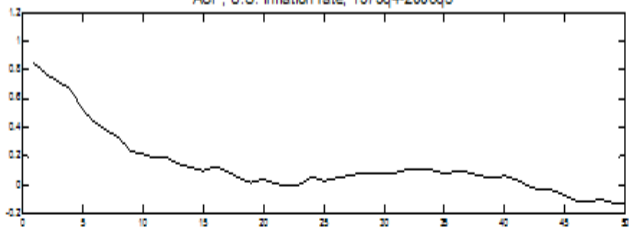
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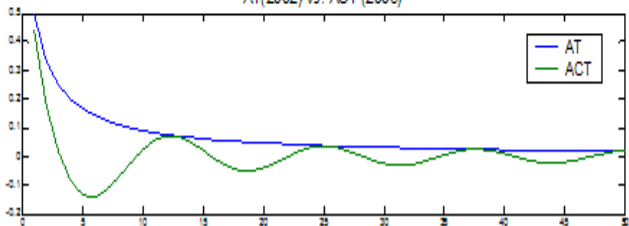
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 - 4 New-unifying framework for describing the dynamics of the macro-variables (bye bye Nelson-Plosser!)

ACF, U.S. inflation rate, 1979q4-2006q3



AT(2002) vs. ACT (2006)



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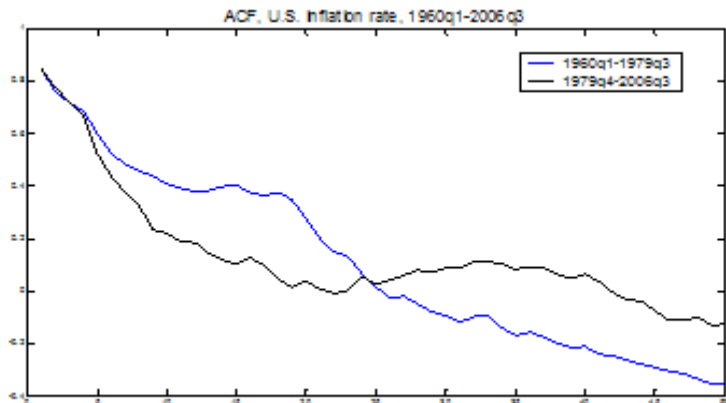
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 - 3 quibbles

Horserace: ACT against ARFIMA

- Gadea-Mayoral (IJCB,2005): ARFIMA beats all the ARIMAs in fitting the inflation rate in the OECD countries, i.e. $I(d=.7)$ superior with respect to $I(0)$, $I(1)$ models in the *time domain*: People should use ARFIMA for, say, measuring inflation persistence!
- Cool result! Macroeconomist obsessed with inflation persistence! (and microfoundations, optimal policies, counterfactual experiments, money, beers, girls ...)
- ... what about the *ACF domain*? Able to derive the theoretical ACF for ARFIMA? [Perhaps at least GMM-type estimation under simulation is possible]

Breaks in inflation persistence



ACT nice tool for assessing, say, inflation persistence. Question: Did it fall or not at the beginning of the '80s? Any test in the ACF domain?

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- ARMA vs. AT vs. ACT ... perhaps a Figure with different calibrations for these models may be of help.