

Discussion of "A DSGE model of the term structure with regime shifts" by Gianni Amisano and Oreste Tristani

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09.October 2009

Summary I

- important contribution to existing literature on term structure models
- brilliant idea to generate time varying term premia by introducing regime shifts
- in most DSGE models only the short term interest rate is modeled; for many decisions in the economy, however, the long term interest rate is important
- in order to tackle this problem new DSGE models like this one have emerged

Summary II

- problems with first and second order approximation and also third order
 - ① term premia are zero in a first order approximation
 - ② they are constant in a second order approach (exception: conditional heteroscedasticity or conditional covariance (see Piazzesi, Schneider (2006)))
 - ③ in third order approximation term premia are time varying but estimation is not feasible
- therefore, great contribution of this paper to circumvent this problem: regime shifts incorporated in shocks

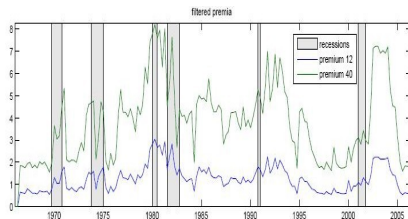
Additional features of this paper

- robustness check with linearized version, different utility functions etc.
- everything (including the SDF) is microfounded
- ideal modular-follow up paper of HTV (2008)

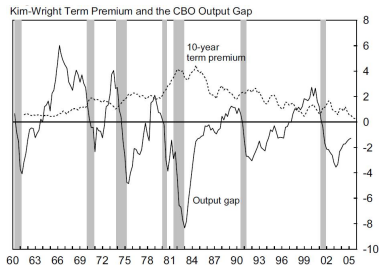
Focus of my comments

- countercyclical term premia
- Comparing term premia to results of other studies
- is regime switching the only (best) way?
- implications of utility representation on term premia?

Term premia and recessions - Countercyclicity



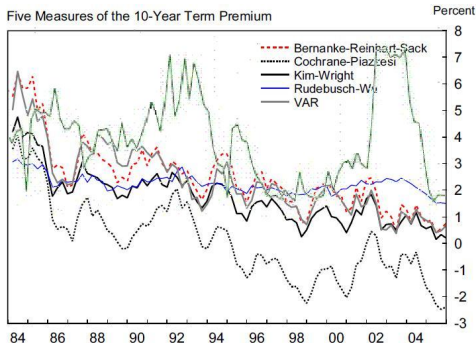
(a) Term Premia in Paper with standard utility



(b) Empirical results in Rudebusch, Sack, Swanson (2007)

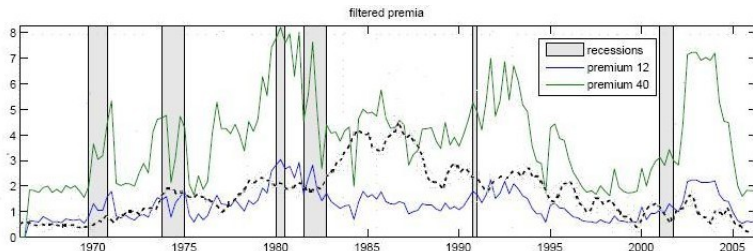
- Well captured by regime switching that term premia behave in a countercyclical way

Term Premia during the Great Moderation



- Differences between others' term premia and the paper's (green line)

Kim, Wright vs. Amisano, Tristano over the whole sample



- Time varying term premia of paper are high and volatile over the whole sample compared to other approach (Kim, Wright dotted black line)

Term premia too high?

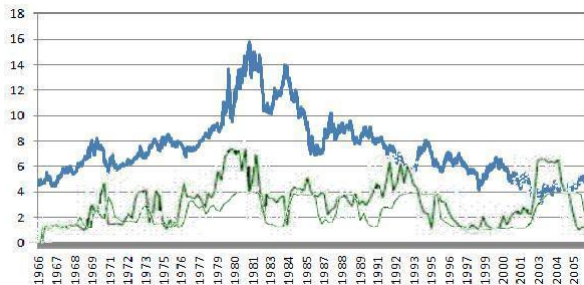
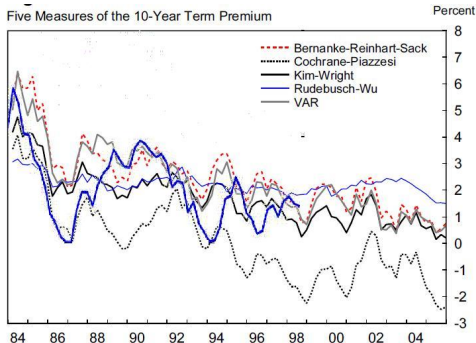


Figure: 10 year yields (blue) and term premia of paper

- In times of "conundrum" term premia at least in standard utility approach too high; with expected utility more plausible;

Comparing Doh(2006) to other results of term premia



- rather good "match" of Doh's (thick blue line) time varying term premia with the five other ones

Some suggestions

- counterfactual analysis: playing around with shocks and see which one is primary driving force
- degree of nominal frictions seems to play a big role (perhaps including such a shock with regime shift)
- with respect to model parameters what drives term premia to behave as they do in standard vs. non-expected utility approach

Concluding thoughts

- benchmark paper that opens up new room for more research
- brilliant idea to introduce regime shifts and endogenize all variables including pricing kernel
- perhaps advisable to think about term premia