

# Discussion of “A Boom-Bust Business Cycle Model with Search-for-Yield and Heterogeneous Expectations in the Bond Market”

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## What the paper does

- ABM model of business cycles with firm financial fragility
- In the model business cycles are driven by the debt accumulation of firms
- Firms raise external funds by issuing bonds
- The demand for bonds comes from two different types of financial investors (framework inspired Brock and Hommes, 1997).
  - ▶ *Fundamentalists*, who are able to correctly evaluate the default risk of firms
  - ▶ *Chartists*, who search for the highest yield without a proper evaluation of default risk
- The search-for-yield by chartists decreases the cost of funding of risky firms, thereby fostering their debt over-accumulation. In turn this leads to episodes of large bankruptcy and to recessions.

# Comments

## Main contribution of the paper

- Introduction of different features of financial market dynamics (search-for-yield, different trading strategies) into an otherwise standard ABM framework with financial market imperfections.
- Link to Keynes' (and Wicksell) ideas about the role of interest rate.
  - ▶ Interest rates do not always promote the right coordination between savings and investment
- Presence of threshold effects in the analysis of the effects of different parameters (similar to Dosi et al. 2013)
- Start filling a gap in the macro ABM literature (and not only there!). So far the study of the financial-real dynamics nexus has been limited to the bank-firm relation

# Comments

## Some remarks

- Model looks overspecified. The boom and bust dynamics generated by the model seems very similar to the one generated by other ABM models (e.g. Delli Gatti et al. 2005, Dosi et al 2013) but also by more other models (e.g. Greenwald and Stiglitz, 1993, Aghion et al., 1999)
- In particular, Such dynamics could have been observed also without the search-for-yield dynamics. Thus, it is not clear what one learns more about macroeconomic fluctuations from the introduction of the search-for-yield dynamics in the market for bonds

- This could be clarified by comparing simulation experiments under two different scenarios
  - ▶ **First scenario.** Financial risk is correctly evaluated by financial investors
  - ▶ **Second scenario.** Some financial investors have misperceptions about firm default risk (current framework)

## Comments

- Montecarlo simulations reveal that volatility of output is inversely related to the bankruptcy ratio (see Figs. 5, 6, 7, 8).
- This is a bit in contrast with the explanations of business cycles discussed in Section 4.1
- I suspect that such an inverse relationship may mask a positive selection effect driven by the fact that the capital of entrant firms is randomly chosen in the model
- However, in reality entrant firms are smaller than incumbents.

- The assumption that  $\rho_{i1t} = 0$  for all hedge firms needs more discussion. In the model hedge firms are subject to idiosyncratic demand shocks as speculative firms. Thus, it is not clear why they could not go bankrupt as well. Accordingly, this should imply that  $\rho_{i1t} > 0$ .
- Furthermore, the model makes the strong assumption that fundamentalists do not invest in risky bonds despite the fact that these bonds yields a higher (risk-adjusted) return ( $r + \rho_i$ ) then safe bonds  $r$ .