Discussion of "Asset Pricing with Heterogeneous Investors and Portfolio Constraints"

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Summary

- Portfolio constraints are prevalent among real world investors, yet most continuous-time asset pricing studies assume them away to avoid technical difficulties.

- Papers that do incorporate constraints rely on log utility to obtain analytical solution

- Main contribution of this paper: tractable characterization of equilibrium under portfolio constraints and general CRRA preferences constraints

- Many equilibrium characteristics are consistent with empirical evidence

Summary

- Important methodological contribution to the literature
- Paper's analysis generalizes several important asset pricing models
- Paper is very comprehensive in analyzing equilibrium and in relating theoretical results to empirical findings

Comment 1: generality of the method

- Paper presents a method for tackling portfolio constraints. How general the method is? Can the author outline a class of models in which his method is expected to work?
  - Process for dividends - is GBM necessary?
  - Utility from terminal wealth?
  - Other preferences?

Comment 2: more direct empirical evidence

- The paper provides a rare laboratory for explaining constraint-related empirical evidence—majority of models do not have constraints, so they are in principle not able to explain such evidence

- Yet, the paper focuses on the evidence unrelated to constraints (e.g., pro- and counter-cyclicality of various quantities). There are many existing explanations of these regularities (habit formation, long-run risks, institutional investors, etc)

- This paper is particularly suitable for addressing "subtle" phenomena such as (e.g., Hardouvelis and Theodossiou 2002):
  - relation between margin requirements and volatility is a non-linear one
  - major asymmetry in this relation across bull, normal and bear periods

Comment 3: who are investors A and B?

- I'm biased due to my research agenda, but if someone asked me to divide all investors into two groups based on how constrained they are, I would answer
  - group 1: professional portfolio managers—close to being unconstrained
  - group 2: individual investors—constrained
- Paper assumes that unconstrained are more risk averse than constrained
- For my interpretation, this does not seem to be very plausible
- So, who are investors A and B? What if the relation between risk aversions is reversed?

Comment 4: interaction between investor heterogeneity and portfolio constraints

- In many–places, the paper states that it explores interaction between preferences heterogeneity and constraints. How important this interaction is? (Maybe I missed it, but I found only one place in the paper talking about interaction—after Corollary 1)
- Consider two special cases: 1) a model with heterogeneous preferences but no constraints, and 2) a model with constraints but no investor heterogeneity
- Suppose someone combines insights from settings 1) and 2). How many insights does she/he miss?
- If there is considerable interaction, I would expect several novel important insights emerging from the unified treatment of the heterogeneity and constraints