

OPEN RESEARCH QUESTIONS

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RESEARCH QUESTIONS

- ▶ Demand system asset pricing provides a new approach to asset pricing by studying the asset demand system using data on portfolio holdings.
- ▶ This is a new approach and this means that there are many open, unanswered questions.
- ▶ In these final slides, we discuss a series of research questions that we find interesting and that (we think) are ripe for exploration.
- ▶ This list is by no means exhaustive, and make sure to reach out if we can be of help to provide feedback on a research idea that you are considering.

#1: IMPACT OF INELASTIC FINANCIAL MARKETS ON THE REAL ECONOMY

- ▶ Given markets are inelastic, what are the implications for macro of inelastic financial markets?
 - ▶ e.g., do Quantitative Easing for FX, Bonds, perhaps stocks)?
 - ▶ target particularly inelastic sectors (e.g. MBS?)
- ▶ Quantify how financial flows to create booms in stocks, bonds, and then booms in the real economy?
 - ▶ This seems particularly important in emerging markets (see later discussion of international finance)
- ▶ What's the sensible or optimal policy to mitigate those booms? purchases by central bank? countercyclical tightness of prudential ratios?
- ▶ How about optimal monetary + fiscal policy + QE policy?

#2: MICRO FOUNDATIONS OF DEMAND ELASTICITIES

- ▶ Why is investors' demand inelastic?
 - ▶ Uncertainty/ambiguity/inattention/bounded rationality about expected returns, risk, ...
 - ▶ This seems central for most investors
 - ▶ Benchmarking and other regulatory/risk constraints.
- ▶ We have mostly focused on modeling the asset demand system, taking supply as given. This raises a series of questions:
 - ▶ How do firms respond when implementing their corporate policies (e.g., leverage, payout policy, ..)?
 - ▶ Are firms important arbitrageurs? And at which horizon?
- ▶ Bring in more data about investors to model microfoundations more explicitly, like portfolio constraints that investors face.
 - ▶ For example, an insurance company's portfolio can depend on many considerations including risk-based capital and liability exposure (climate, investment guarantees).
 - ▶ Use machine learning to figure out which of these pieces matter, and for which investors.

#3: DETERMINANTS OF FLOWS AND DEMAND SHIFTS

- ▶ Despite decades of research, we still struggle to understand fluctuations in asset prices.
- ▶ We have traced those fluctuations back to shifts in investors' demand curves.
 - ▶ But what create those shifts? can we have a useful theory for that?
 - ▶ Whose demand shifts during periods without apparent news?
 - ▶ Can we use this to understand why certain strategies perform well or poorly (e.g., value post-2008)?
 - ▶ In models with asymmetric information (e.g., Kyle, 1989), portfolio holdings are typically not observed. With the benefit of hindsight, can we test those models and
 - ▶ Infer who the informed investors are?
 - ▶ Analyze whether their dynamic trading strategies align with the theories?

#4: MACHINE LEARNING AND AI METHODS

- ▶ Enrich the demand model with more data sources (forecasts, earnings calls, text analysis).
- ▶ More general demand specifications (bigger model), with the goal of more realistic substitution patterns.
 - ▶ Question: How do we formally compare two (non-nested) asset demand systems?
- ▶ Improving identification. There's lots of plausibly exogenous variation, index additions/deletions, cash-induced trading.
 - ▶ Can ML combine a bunch of weaker/isolated sources of variation and make ID stronger?

#5: INTERNATIONAL FINANCE

- ▶ An international asset demand system (see lecture 2) can provide a new perspective on the central questions in international finance:
 1. Which countries drive the global financial cycle (Rey, 2013)?
 2. Which flows (equities, fixed income, FDI, . . .) are most important in determining exchange rates?
 3. What drives the comovement of global yield curves and equity markets? What about convenience yields?
 4. What about the effectiveness of FX interventions?
 5. Jiang, Richmond, and Zheng (2024) use the international asset demand system to understand global imbalances.
- ▶ For tractable GE models, see Gabaix and Maggiori (2015) and Itskhoki and Mukhin (2021) to analyze FX dynamics, and impact on GDP / unemployment.

#6: BEYOND EQUITIES

- ▶ We have focused largely on US equity markets.
- ▶ However, rich holdings data are available across countries and asset classes (see also lecture 1).
- ▶ Of particular interest could be:
 - ▶ Corporate bonds (Bretscher, Schmid, Sen, and Sharma, 2024).
 - ▶ Real and nominal bonds and thus break-even inflation (Bahaj, Czech, Ding, and Reis, 2023).
 - ▶ Option markets (how to understand fluctuations in the VIX?).
 - ▶ Crypto currencies (Benetton and Compiani, 2024).
 - ▶ Housing markets.
 - ▶ ...

CONCLUSION

- ▶ These are just initial suggestions and ideas.
- ▶ In case you are wondering whether a research idea is viable or how to best approach it, feel free to reach out.
- ▶ Keep in mind that this is a new area, so there are many (perhaps) seemingly obvious, and yet important, questions that are unexplored.
- ▶ Above all, we think that the asset demand system plays a central role in macro finance, and that improving our understanding of it is essential.