Keisuke W. Teeple

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EDUCATION

University of California, Davis, Ph.D., Economics (2022 Expected)

University of California, Davis, M.A., Economics (2017)

University of California, Berkeley, B.A., Economics, B.A., Applied Mathematics (2011)

RESEARCH

Fields: Economic Theory, Behavioral Finance

Working Papers:

- Non-Fundamental Volatility in Financial Markets, Job Market Paper. I use coarse Bayesian updating to explain three stylized facts: trading anomalies around major stock market milestones, excess price volatility and trade volume, and heavy-tailed prices. When expectations are coarse and traders are heterogeneous, traders make heterogeneous mistakes. This disagreement generates substantial trade volume and I show that the ensuing price discovery process converges in distribution to an empirically relevant class of Levy processes. Notably, I obtain this result without any exogenous shocks or processes; the only exogenous random variable is a heterogeneity parameter drawn at time zero. I then establish a perfectly non-revealing equilibrium: because traders are different, their aggregated trades generate volatile prices, yet this volatility impedes traders from learning their differences.
- Surprise and Default in General Equilibrium, revise and resubmit at Theoretical Economics. I model an incomplete markets economy where unaware agents do not perceive all states of nature, so unintended default can occur when asset returns differ from what was perceived. Unawareness is modeled in a particularly tractable way: while agents may fail to plan over some states, I discipline their beliefs so that agents remain perfectly unbiased in the remaining ones. First, equilibrium is shown to exist. The First Fundamental Welfare Theorem fails because of default and pecuniary inefficiencies, but the Second Fundamental Welfare Theorem holds for economies with no aggregate risk. Welfare is shown to not necessarily be monotonic in discovery, or the increasing of awareness.
- Level-k Predatory Trading, revise and resubmit at Journal of Mathematical Economics. I extend the Brunnermeier and Pedersen (2005) predatory trading model with the level-k thinking solution concept to investigate the possibility of arbitraging arbitrageurs. While naive financial predators prey upon a single distressed investor, higher-level thinkers best respond to this and prey upon fellow predators. For some parameter values, sophisticated predators are able to reason their way to the Nash equilibrium strategy, and prices do not oscillate. As parameter values are perturbed, the system undergoes a bifurcation and predators select strategies from a mean-preserving spread of the Nash equilibrium strategy. In these settings, prices display excess volatility and a single shock can send predators into an oscillatory trading frenzy.

• Liquidity and Investment in General Equilibrium, with Nicolas Caramp and Julian Kozlowski. This paper studies the implications of trading frictions in financial markets for firms' investment and dividend choices, as well as their aggregate consequences. When equity shares trade in frictional asset markets, the firm's problem is time-inconsistent and it is as if the firm faces quasi-hyperbolic discounting. The transmission of trading frictions to the real economy crucially depends on the firm's ability to commit. In a calibrated economy without commitment, larger trading frictions imply lower capital. In contrast, if firms can commit, trading frictions affect asset prices and there is no effect on aggregate capital.

EXPERIENCE

Associate Instructor:

• Intermediate Microeconomic Theory 100B (Summer I & II 2020)

Teaching Assistant:

- Economics of Uncertainty 103 (Fall 2019 & Fall 2018)
- Intermediate Microeconomic Theory 100B (Summer I 2021, Summer II 2019 & Summer II 2018)
- Intermediate Microeconomic Theory 100A (Summer I 2019, Summer II 2018 & Fall 2017)
- Industrial Organization 121B (Spring 2019)
- Decision Making 106 (Winter 2019)
- Intermediate Macroeconomic Theory 101 (Spring 2018)
- World Economic History 110B (Winter 2018)
- Game Theory 122 (Fall 2021, Spring 2020 & Summer II 2017)
- Principles of Macroeconomics 1B (Spring 2017 & Winter 2017)
- Principles of Microeconomics 1A (Fall 2016)

Research Assistant:

- Andres Carvajal, *Professor UC Davis (Summer 2017)*
- Arnav Sheth, Associate Professor Saint Mary's (2015-2016)
- Nicolas Caramp, Assistant Professor UC Davis (Fall 2020-Winter 2021)

ADDITIONAL

Presentations:

- 2019: UC Davis brown bag seminar
- 2020: University of Zurich brown bag seminar, CRETA Conference University of Warwick, UC Davis brown bag seminar, Western Social Science Association Virtual Conference, Conference on Mechanism and Institution Design, Missouri Valley Economic Association Conference, World Finance and Banking Symposium, Econometric Society Winter Meeting
- 2021: UC Davis brown bag seminar, Society for the Advancement of Economic Theory Virtual Meeting, Southwest Social Science Association Annual Meeting, Econometric Society Asian Meeting, Mini Workshops on Unawareness UC Davis, 37th International Conference of the French Finance Association, Canadian Economics Association Conference, Bay Area Behavioral and Experimental Economics Workshop, European Workshop on Economic Theory, European Economics and Finance Society Annual Conference, Annual World Finance Conference, China Meeting of the Econometric Society, Workshop on Economics with Heterogeneous Interacting Agents, Shanghai University of

Finance and Economics seminar, 23rd Applications of Mathematics and Statistics in Economics Conference, St. Louis Fed seminar, Association for Mathematics Applied to Social and Economic Sciences Annual Conference, Missouri Valley Economic Association Conference, University of Nevada Reno seminar, University of Zurich brown bag seminar, 10th India Finance Conference, Annual Conference of Financial and Banking Perspectives, 16th BiGSEM Workshop, Delhi Winter School

• 2022: SF State seminar, 93rd International Atlantic Economic European Conference, 35th Annual Conference of the Academy of Finance

Awards:

- UC Davis Provost's Dissertation Year Fellowship
- UC Davis Economics Department Graduate Student Travel Award
- Southwest Social Science Association Graduate Student Paper Award, First Prize
- Graduate Student Association Travel Award

Referee: Journal of Mathematical Economics, International Journal of Economic Theory

References:

- Andres Carvajal, Professor UC Davis (acarvajal@ucdavis.edu)
- Felix Kubler, *Professor University of Zurich (fkubler@gmail.com)*
- Nicolas Caramp, Assistant Professor UC Davis (ncaramp@ucdavis.edu)