When Economics Fails

Harvard University, Department of Economics
EC970: Sophomore Tutorial, Fall 2026

Instructor:	Luis Henrique Linhares	**Time:**	T/Th 4:30 PM - 5:45 PM
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Location:	TBD	**Website:**	TBD

"Essentially, all models are wrong, but some are useful."
— George E. P. Box and Norman R. Draper, *Empirical Model-Building and Response Surfaces* (1987, p. 424)

COURSE DESCRIPTION

Economics was built on top of models that rely on strong assumptions: people are rational, markets are perfect, and agents have all the information they need to make a decision. But how well do these assumptions hold up in the real world? People spend their hard-earned cash in lotteries with very unfavorable odds, price dispersion is everywhere, and credit is scarce in many developing countries. These are real phenomena, with very real consequences, that are hard to explain using only classic economic models.

In this class, students will learn how economists tackled these questions and changed economics along the way. We will ask what happens when you break three big economic assumptions: rational agents, perfect information, and perfect markets. We will do so by covering topics in behavioral and information economics and using evidence from development, labor, finance, and other fields. Students will learn how to challenge preconceived ideas and develop new explanations based on theory and evidence. By the end of this course, they will understand the trade-off between simplicity/tractability versus realism/accuracy.

COURSE OBJECTIVES

- Learn how to read and comprehend high-quality published economic papers.
- Develop the necessary skills to begin a research project in economics, including economic writing and statistical analysis.
- Challenge old ideas with the support of scientific evidence.

DUE DATES

Presentation Slides and Response Paper – Due 8 PM the day before the relevant paper is covered in class
September 7th – Choice of papers to present in class by 11:59 p.m. via email to instructor.
September 14th – Economics has Failed!
September 18th – STATA/R Problem Set 1
September 22nd – In-class STATA/R Quiz 1
September 23rd – Explain a Model
October 2nd - STATA/R Problem Set 2
October 5th – Ideas Proposal
October 6th – In-class STATA/R Quiz 2
October 13th - Midterm

October 16th - STATA/R Problem Set 3
October 20th – In-class STATA/R Quiz 3
October 21st – Prospectus I
October 30th – STATA/R Problem Set 4
November 3rd – In-class STATA/R Quiz 4
November 4th – Economics has Failed! Again!
November 11th - Prospectus II
November 20th – Peer Review: send your draft to your peer
November 23rd – Peer Review: submit your draft review and send it to your peer
December 1st – Student Presentations I
December 3rd – Student Presentations II
December 10th – Final Paper due at 5 PM. This is an Ec 970 deadline.
TBD during final exam period – Oral defense of final paper and course material

OFFICE HOURS

I encourage you to come to office hours! It can be extremely helpful and save a lot of work time later. For instance, talking with others about your project is a fundamental part of research, so it is important that students take advantage of this resource.

PREREQUISITES

Ec 10ab (Principles of Economics), Stat 104 (or equivalent), and Economics 1010a/1011a (Intermediate Microeconomics) are required.

COURSE REQUIREMENTS

Grades in this course depend on participation during class discussions, writing assignments, and solving empirical problems. Unless otherwise stated, all writing assignments should be submitted online as a PDF on Canvas by 8:00 PM of the day they are due (STATA/R problem sets have their own due dates and submission rules).

Course Requirements - Overview

Requirement	**Share of Grade**	**Due Dates**
STATA/R Problem Sets and Quizzes	10% (4% PS, 6% Quiz)	09/18, 10/02, 10/16, 10/30
Class Participation	10%	Every class
Readings Presentation and Discussion	5% (2.5% each)	09/07 – Paper choice / Varies
Research Project Presentation	2.5%	12/01 and 12/03
Response Paper	2.5%	Varies
Economics has Failed! (Again!)	10% (5% each)	09/14 and 11/04
Explain a Model	5%	09/23
Final Research Project	25%	12/10
Oral Assessment	10%	TBD
Midterm	20%	10/13

STATA/R Problem Sets (10%): You are required to complete a STATA/R mini course (you can choose which language you will work with), composed of online modules and 4 problem sets (worth 4% of the grade). In the class following each problem set's due date, you will complete a short pencil-and-paper quiz related to the problem set (quizzes are worth 6% of the grade). Students are encouraged to take advantage of the STATA/R office hours that Harvard offers. [Add link to the Canvas website for the mini course] The use of generative AI to solve the problem sets is forbidden.

Class Participation (10%): Attendance is mandatory, and students are expected to participate in discussions. Your participation grade will reflect your attendance, preparation, and engagement. You are expected to prepare by reading the assigned papers ahead of class. Reading papers marked with one or two stars (* or **) is optional, unless you have an assignment related to them. In every class, I will ask two students to help with the discussion: one to answer a question about the mandatory reading of the day, and another to comment on the answer. However, all students are encouraged to bring handwritten notes on the readings of the day to help with the discussion.

Presentations (7.5%): Each student will give 3 presentations. The duration and number of presentations per day may vary depending on class size.

> **Readings Presentation and Discussion (5%, 2.5% each):** In most classes, one student will do a short presentation to summarize one of the readings of the day (papers that can be chosen for presentation are marked with two stars **). Each student will do this twice. Presentations should last around 5 minutes. Slides are due at 8 PM the day before we cover the paper in class. You will choose 5 papers from the reading list you would like to present, and I will assign you 2 of them. You should send your choices via email.
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> **Research Project Presentation (2.5%):** The last two classes are reserved for students to present and discuss their final research projects. The presentation itself should last around 10 minutes. Afterward, we will have 5 minutes for questions. To receive full credit, students are expected to ask at least one relevant question during another student's Q&A. Slides are due at 8 PM the day before the presentation.

Writing Assignments (42.5% total): These are designed to help students develop the skills needed to conduct their own economic research and communicate it effectively and are done outside of class hours. All writing assignments must be submitted in a PDF file with standard formatting: Times New Roman (or comparable serif font), 12-point font, 1-inch margins, and double spacing.

> **Response Paper (2.5%, 3-4 pages):** You will choose an empirical paper from the optional reading list (* or **) to summarize, comment on, and critique. You cannot write a response on a paper you are presenting in class.
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> **Economics has Failed! (5%, 4 pages):** You will read a paper that provides evidence against a traditional assumption in economics. In the first part of the assignment, you will identify the assumption and explain why the evidence works against this assumption. In the second part, you will read another paper that provides alternative assumptions and compare the conclusions of both papers. All your arguments should be backed up by proper evidence and citations.
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> **Economics has Failed! Again! (5%, 4 pages):** You will find a news article from a reputable source that illustrates a market failure. In the first part of the assignment, you will be required to write an

essay to explain the mechanisms behind the failure. In the second part, you will propose a methodology to measure the impact of the failure on the market.

Explain a Model (5%, 3-4 pages): Students will describe the framework and logic of a behavioral model from a published paper. The description must clearly explain the relevant mechanisms that drive the behavior studied by the paper.

Final Research Project (25% total): You will do a research project. You are free to choose the question you want to tackle, as long as it fits the course theme (given the broad nature of the course theme, if you have a good argument for why your idea fits here, you can work on it). You must also schedule a meeting with the instructor after you send your Ideas Proposal, but before Prospectus 1 is due, to discuss your ideas. Your milestone submissions can and should be used towards writing your final research paper. You are expected, whenever possible, to use the skills you have learned in the STATA/R course.

Ideas Proposal (2.5%, 1-2 pages): Briefly describe at least three ideas you find interesting for your final research paper. Remember that the goal of research is to discover something new. Therefore, the ideas should clearly state what you (and the reader) should hope to learn with the project.

Prospectus I (2.5%, 3-4 pages): For this part, you will state your chosen research question, describe the results you hope to find, and argue why your proposal is of economic interest. To help with this, you will also write a literature review referencing a minimum of 5 papers, with at least 3 that are not on the reading list.

Prospectus II (2.5%, 4-6 pages): For this part, you will write the first draft of your introduction (which is based on Prospectus I), and describe your methodology. It should include a description of any data, econometric strategies, and models you plan to use. Any summary statistics should be included here as well.

Peer Review (2.5%, 1 page): You and another student will exchange your drafts for the final research paper and provide useful feedback.

Final Paper (15%, 15-18 pages excluding figures and tables): It should present a clear research question, explain the relevant literature, describe the methodology and data or model used, present any results you have, and discuss limitations and possible future steps. The final paper should revise, extend, and incorporate feedback on earlier project milestones, including Prospectus I, Prospectus II, and the peer review draft. Due at 5 PM.

Oral Assessment of Written Work (10% total): To incentivize engagement with your written work, you will be required to discuss and/or defend your written assignments. During the final exam period you will be required to sign up for a 20-30-minute one-on-one discussion with the instructor.

Final Paper Defense (5%): In the first 10-15 minutes you will defend and discuss your final research paper.

Course Discussion (5%): In the second half, the instructor will ask questions about the course components to assess your engagement with the course materials. Think about what you have learned and how you can hope to use these skills in the future. You are also free to ask any open questions you may have.

Midterm (20%): The midterm will be a closed-book, pen-and-paper exam administered in class. I will provide you with excerpts from one of our mandatory (no asterisk) course readings. You will answer a series of short-answer and short-essay questions designed to test your ability to read, unpack, and critically assess the paper on the spot. You can expect questions focusing on the paper's research question, its theoretical approach, empirical strategy, main results, and its overall contribution to the literature. Participating in class and doing all the readings as we go along should be more than enough preparation for the midterm. Students with approved testing accommodations will complete the midterm through the Testing Center, as appropriate.

COURSE POLICIES

Emails: I aim to reply to emails as soon as possible, but please allow for a 24-hour wait on weekdays and 48 hours on weekends. If you include EC 970 in the subject line of all your emails, it will make my life much easier.

Student Accommodations: If you need any special accommodations, like for taking tests, please let me know during the first week of classes so that we can plan ahead and provide you with the necessary support.

Late Assignments: Assignments submitted after the due date without an approved extension will be considered late. Late assignments will be penalized according to:

- 0.5 – 24 hours: A- maximum grade;
- 24 – 48 hours: B maximum grade;
- 48 – 72 hours: C maximum grade;
- 72+ hours: 0 grade.

Extensions: If you know you will have trouble meeting a deadline, let me know as early as possible so we can discuss if a penalty-free late submission is within reason. I am happy to be flexible, but the later you let me know, the less likely the extension becomes. Keep in mind that extensions for the final paper or for STATA/R problem sets are not allowed as the department sets those deadlines.

Attendance: It is mandatory. You may miss one class without any penalty, but any additional unexcused absences will reduce your participation grade. And please, be on time.

Collaboration: You are encouraged to work with your fellow students, inside and outside of class. Communication is a fundamental part of economic research. However, any final work that you submit must be your own.

Academic Honesty: Research involves building on past knowledge, but a student's submitted work must be their own, and all assignments must follow the proper citation practices. Plagiarism or other academic dishonesty may result in a failing grade and may be referred to the Honor Council. Please, refer to the Harvard College Handbook for Students for more information.

Electronics: Laptops and phones are not allowed unless specifically permitted or for accessibility reasons. Tablets are allowed for note-taking and other class-related activities, but if they get in the way of the discussion, I will forbid their use.

AI Policy: All submitted work should be your own. AI tools are powerful and can help you become a better researcher when used well. Examples of responsible use include asking for clarification when reading papers, polishing final drafts, grammar checks, and other ways to improve what has already been done. It should not be used as a substitute for doing the reading, thinking, coding, or writing yourself. You cannot use AI to complete the STATA/R problem sets or quizzes, to generate code for those assignments, or to replace reading of papers with AI-generated summaries. If you use AI in any permitted way on a written assignment, you must include a short disclosure stating the tool used, how it was used, and, if relevant, the prompts. You are fully responsible for the accuracy and integrity of everything you submit. Any use of AI that undermines the purposes of the course may be treated as academic misconduct. In addition, all students are expected to be able to defend orally their written work if called on to do so. An inability to do this will earn the student a 0 on the relevant assignment and the case may be referred to the Honor Council.

Respect: This course thrives on the free discussion of ideas. We must create an environment where people feel comfortable sharing opinions and asking questions. Be mindful of your words, be respectful, and appreciate your classmates' input.

Support: Harvard provides many additional resources. The Academic Resource Center offers tutoring, coaching, and many other services. Maintaining good mental health is also important, so if you are facing difficulties, you can contact Harvard University Health Services, Counseling and Mental Health Services, and the Center for Wellness and Health Promotion. Lastly, you can always reach out to me.

SCHEDULE AND READING LIST

In addition to classes, you will also have to attend the STATA/R courses and submit the problem sets, so pay attention to those. I will also refer you to the Writing Economics[1] guide as needed, but it is very helpful to read it all once at the beginning of the course.

Below are 3 books that cover topics of interest. Their reading is not required or expected, but you might find them helpful as we go on (and they are also an interesting reads).

Chaubey, Varanya. 2018. *The Little Book of Research Writing: The Structural Challenge of Communicating Knowledge + a Method to Meet it.* CreateSpace Independent Publishing Platform.

Rodrik, Dani. 2015. *Economics Rules: The Rights and Wrongs of the Dismal Science*. W. W. Norton.

Thaler, Richard H. 2015. *Misbehaving: The Making of Behavioral Economics*. W. W. Norton.

The topics and tentative required readings for every class are as follows. Unstarred readings are required. Papers with an * are optional and cannot be chosen for a student presentation. Papers with ** are optional and can be chosen for a student presentation. As the reading load can get heavy, you are not expected to read the optional papers unless you are presenting or writing a response paper on them (but if you find them interesting you are welcome to read them!). The assignments with a non-fixed due date are there to give you some freedom to distribute your tasks throughout the semester.

A good reading strategy is to always read the abstract, introduction and conclusion. Then, read the other sections as needed. What you should identify is the research question, motivation, method, answer and contribution. If you can do this, you have achieved the goal of the course. Making notes as you read can help. Some papers might require advanced mathematics and econometrics to understand. In those cases,

[1] https://www.economics.harvard.edu/sites/g/files/omnuum5991/files/econ/files/writingec_f2014_0_1.pdf

prioritize intuition, mechanisms, identification argument, and takeaways. When we discuss the papers in class, we can dive deeper together if required. You do not need to spend too much time on technical aspects, extensions, and robustness checks. Do not read papers like a textbook that is actively trying to teach you something. Focus on understanding the arguments made by the authors and think about them critically.

Session 1 – 09/03 – Introduction. What are economic models for? Are people rational?

Writing Economics, Chapter 1

Fox, Justin. 2015. "From 'Economic Man' to Behavioral Economics: A short history of modern decision making." *Harvard Business Review*, May: 78-85.

Gilboa, Itzhak, Andrew Postlewaite, Larry Samuelson, and David Schmeidler. 2014. "Economic Models as Analogies." *The Economic Journal* 124: F513-F533.

Rubinstein, Ariel. 2006. "Dilemmas of an Economic Theorist." *Econometrica* 74(4):865-883. – Focus on the arguments and examples, it is OK to skip the references mentioned that you have not heard of before.

*Thaler, Richard H. 2000. "From Homo Economicus to Homo Sapiens." *Journal of Economic Perspectives* 14 (1): 133-141.

PART I – Bounded Rationality and Behavioral Economics

Session 2 – 09/08 – A convenient list of biases

DellaVigna, Stefano. 2009. "Psychology and Economics: Evidence from the Field." *Journal of Economic Literature* 47 (2): 315-72.

*Kahneman, Daniel, and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." *Econometrica* 47 (2): 263-292.

*Meier, Stephan, and Charles Sprenger. 2010. "Present-Biased Preferences and Credit Card Borrowing." *American Economic Journal: Applied Economics* 2 (1): 193-210.

Session 3 – 09/10 – The philosophy of behavioral economics

Rabin, Matthew. 2013. "Incorporating Limited Rationality into Economics." *Journal of Economic Literature* 51 (2): 528-543.

*Thaler, Richard H. 1980. "Toward a Positive Theory of Consumer Choice." *Journal of Economic Behavior & Organization* 1 (1): 39-60.

**Thaler, Richard H. 1985. "Mental Accounting and Consumer Choice." *Marketing Science* 4 (3): 199-214.

Session 4 – 09/15 – Should we care about biases?

Chetty, Raj. 2015. "Behavioral Economics and Public Policy: A Pragmatic Perspective." *American Economic Review* 105 (5): 1–33.

*Akerlof, George, and Janet Yellen. 1985. "Can Small Deviations from Rationality Make Significant Differences to Economic Equilibria?" *American Economic Review* 75 (4): 708-720.

**Akerlof, George A. 2002. "Behavioral Macroeconomics and Macroeconomic Behavior." *American Economic Review* 92 (3): 411-33.

Session 5 – 09/17 – Should we fix individual mistakes?

Chetty, Raj, John N. Friedman, Søren Leth-Petersen, Torben Heien Nielsen, and Tore Olsen. 2014. "Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark." *Quarterly Journal of Economics* 129 (3): 1141-1219.

**Thaler, Richard H., and Cass R. Sunstein. 2003. "Libertarian Paternalism is not an Oxymoron." *University of Chicago Law Review* 70 (4): 1159-1202.

Session 6 – 09/22 – Nudges as policies

Duflo, Esther, Michael Kremer, and Jonathan Robinson. 2011. "Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya." *American Economic Review* 101 (6): 2350–2390.

**Alatas, Vivi, Ririn Purnamasari, Matthew Wai-Poi, Abhijit Banerjee, Benjamin A. Olken, and Rema Hanna. 2016. "Self-Targeting: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy* 124 (2): 371-427.

**Beshears, John, James J. Choi, David Laibson, and Brigitte C. Madrian. 2013. "Simplification and saving." *Journal of Economic Behavior & Organization* 95: 130-145.

Session 7 – 09/24 – Limited Attention

Hanna, Rema, Sendhil Mullainathan, and Joshua Schwartzstein. 2014. "Learning Through Noticing: Theory and Evidence from a Field Experiment." *Quarterly Journal of Economics* 129 (3): 1311-1353.

**Barber, Brad M., and Terrance Odean. 2008. "All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors." *Review of Financial Studies* 21 (2): 785-818.

**Karlan, Dean, Margaret McConnell, Sendhil Mullainathan, and Jonathan Zinman. 2016. "Getting to the Top of Mind: How Reminders Increase Saving." *Management Science* 62 (12): 3393-3411.

Session 8 – 09/29 – Limited Attention II

Taubinsky, Dmitry, and Alex Rees-Jones. 2018. "Attention Variation and Welfare: Theory and Evidence from a Tax Salience Experiment." *Review of Economic Studies* 85 (4): 2462-2496.

**Brown, Jennifer, Tanjim Hossain, and John Morgan. 2010. "Shrouded Attributes and Information Suppression: Evidence From the Field." *Quarterly Journal of Economics* 125 (2): 859-876.

**Gabaix, Xavier, and David Laibson. 2006. "Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets." *Quarterly Journal of Economics* 121 (2): 505–540.

Session 9 – 10/01 – Salience

Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer. 2016. "Competition for Attention." *Review of Economic Studies* 83 (2): 481-513.

**Chetty, Raj, Adam Looney, and Kory Kroft. 2009. "Salience and Taxation: Theory and Evidence." *American Economic Review* 99 (4): 1145-1177.

**Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer. 2013. "Salience and Consumer Choice." *Journal of Political Economy* 121 (5): 803-843.

Session 10 – 10/06 – Overconfidence

Barber, Brad M., and Terrance Odean. 2000. "Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors." *The Journal of Finance* 55 (2): 773-806.

**Grubb, Michael D. 2015. "Cellular Service Demand: Biased Beliefs, Learning, and Bill Shock." *American Economic Review* 105 (1): 234-271.

Session 11 – 10/08 – Biases affecting beliefs

Bordalo, Pedro, Katherine Coffman, Nicola Gennaioli, and Andrei Shleifer. 2016. "Stereotypes." *Quarterly Journal of Economics* 131 (4): 1753-1794.

**Gentzkow, Matthew, and Jesse M. Shapiro. 2006. "Media Bias and Reputation." *Journal of Political Economy* 114 (2): 280-316.

Session 12 – 10/13 – Midterm

Session 13 – 10/15 – Do firms know we are not perfectly rational?

DellaVigna, Stefano, and Ulrike Malmendier. 2006. "Paying Not to Go to the Gym." *American Economic Review* 96 (3): 694-719.

**Bertrand, Marianne, Dean Karlan, Sendhil Mullainathan, Eldar Shafir, and Jonathan Zinman. 2010. "What's Advertising Content Worth? Evidence from a Consumer Credit Marketing Field Experiment." *Quarterly Journal of Economics* 125 (1): 263–306.

**Anagol, Santosh, and Hugh H. Kim. 2012. "The Impact of Shrouded Fees: Evidence from a Natural Experiment in the Indian Mutual Funds Market." *American Economic Review* 102(1): 576–593.

**DellaVigna, Stefano, and Ulrike Malmendier. 2004. "Contract Design and Self-Control: Theory and Evidence." *Quarterly Journal of Economics* 119 (2): 353-402.

PART II – Imperfect Information

Session 14 – 10/20 – Asymmetric and Imperfect Information

Akerlof, George A. 1970. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics* 84 (3): 488-500.

Karlan, Dean, and Jonathan Zinman. 2009. "Observing Unobservables: Identifying Information Asymmetries With a Consumer Credit Field Experiment." *Econometrica* 77 (6): 1993-2008

**Genesove, David. 1993. "Adverse Selection in the Wholesale Used Car Market." *Journal of Political Economy* 101 (4): 644–665.

Session 15 – 10/22 – Imperfect Information in the Job Market

Altonji, Joseph G., and Charles R. Pierret. 2001. "Employer Learning and Statistical Discrimination." *Quarterly Journal of Economics* 116 (1): 313-350.

**Arcidiacono, Peter, Patrick Bayer, and Aurel Hizmo. 2010. "Beyond Signaling and Human Capital: Education and the Revelation of Ability." *American Economic Journal: Applied Economics* 2 (4): 76-104.

*Akerlof, George. 1976. "The Economics of Caste and of the Rat Race and Other Woeful Tales." *Quarterly Journal of Economics* 90 (4): 599-617.

Session 16 – 10/27 – Adverse Selection in Practice, or How to Screen

Finkelstein, Amy, and Kathleen McGarry. 2006. "Multiple Dimensions of Private Information: Evidence from the Long-Term Care Insurance Market." *American Economic Review* 96 (4), 938-958.

**Aleem, Irfan. 1990. "Imperfect Information, Screening, and the Costs of Informal Lending: A Study of a Rural Credit Market in Pakistan." *The World Bank Economic Review* 4 (3): 329-349.

PART III – Market Failures

Session 17 – 10/29 – Perfect vs Imperfect Competition

Jacoby, Hanan G., Rinku Murgai, and Saeed Ur Rehman. 2004. "Monopoly Power and Distribution in Fragmented Markets: The Case of Groundwater." *Review of Economic Studies* 71 (3): 783-808.

**Ausubel, Lawrence M. 1991. "The Failure of Competition in the Credit Card Market." *American Economic Review* 81 (1): 50-81.

Session 18 – 11/03 – Oligopoly and Collusion

Sonnenfeld, Jeffrey A., and Paul R. Lawrence. 1978. "Why Do Companies Succumb to Price Fixing?" *Harvard Business Review*, July: 145-157.

Genesove, David, and Wallace P. Mullin. 2001. "Rules, Communication, and Collusion: Narrative Evidence from the Sugar Institute Case." *American Economic Review* 91(3): 379–398.

**Asker, John. 2010. "A Study of the Internal Organization of a Bidding Cartel." *American Economic Review* 100 (3): 724-762.

Session 19 – 11/05 – Negative Externalities.

Currie, Janet, and Matthew Neidell. 2005. "Air Pollution and Infant Health: What Can We Learn from California's Recent Experience?" *Quarterly Journal of Economics* 120 (3): 1003-1030.

**Graff Zivin, Joshua, and Matthew Neidell. 2012. "The Impact of Pollution on Worker Productivity." *American Economic Review* 102 (7): 3652-3673.

Session 20 – 11/10 – Credit Constraints.

Banerjee, Abhijit V., and Esther Duflo. 2014. "Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program." *Review of Economic Studies* 81 (2): 572-607.

**Khwaja, Asim Ijaz, and Atif Mian. 2005. "Do Lenders Favor Politically Connected Firms? Rent Provision in an Emerging Financial Market." *Quarterly Journal of Economics* 120 (4): 1371-1411.

Session 21 – 11/12 – Limits to Arbitrage

Lamont, Owen A., and Richard H. Thaler. 2003. "Can the Market Add and Subtract? Mispricing in Tech Stock Carve-outs." *Journal of Political Economy* 111(2): 227–268.

**Shleifer, Andrei, and Robert W. Vishny. 1997. "The Limits of Arbitrage." *Journal of Finance* 52 (1): 35-55.

**Mitchell, Mark, Todd Pulvino, and Erik Stafford. 2002. "Limited Arbitrage in Equity Markets." *Journal of Finance* 57 (2): 551-584.

Session 22 – 11/17 – Do Markets Have All the Information?

Jensen, Robert. 2007. "The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector." *Quarterly Journal of Economics* 122 (3): 879-924.

**Brown, Jeffrey R., and Austan Goolsbee. 2002. "Does the Internet Make Markets More Competitive? Evidence from the Life Insurance Industry." *Journal of Political Economy* 110(3): 481–507.

*Grossman, Sanford J., and Joseph E. Stiglitz. 1980. "On the Impossibility of Informationally Efficient Markets." *American Economic Review* 70 (3): 393-408.

Session 23 – 11/19 – Can Markets Bring Rationality Back?

List, John A. 2003. "Does Market Experience Eliminate Market Anomalies?" *Quarterly Journal of Economics* 118 (1): 41-71.

**Feng, Lei, and Mark S. Seasholes. 2005. "Do Investor Sophistication and Trading Experience Eliminate Behavioral Biases in Financial Markets?" *Review of Finance* 9 (3): 305-351.

PART IV - Conclusion

Session 24 – 11/24 – Last Discussion and Peer Review

Duflo, Esther. 2017. "The Economist as Plumber." *American Economic Review* 107(5): 1–26.

(Bring your peer reviews to class.)

11/26 – No Class - Thanksgiving Break

Session 25 – 12/01 – Student Presentations

Session 26 – 12/03 – Student Presentations