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Spring 2022   dkoustas@uchicago.edu

PPHA 34241 – Household Finance: Theory and Applications

Class Meetings:
M/W 9:00AM – 10:20 AM, Keller 1002.
Office Hours: TBD

Teaching Assistants:
TBD
The current plan is for the TA(s) to hold an optional weekly office coding hour and review session.

Course Description: This course will examine the choices households make about important financial decisions and how these individual choices can impact the aggregate economy. We will address various household decisions as follows: we will introduce basic theory and derive theoretical predictions; these predictions will then be compared with empirical findings. Key topics will include: market participation and household portfolio choice; human capital and student loans; housing and mortgages; and retirement planning. Focus will be placed on the economic rationale for government policies affecting these topics, including so-called household financial engineering, the creation of Government Sponsored Enterprises (GSEs) like "Fannie" and "Freddie," and regulatory agencies like the Consumer Financial Protection Bureau (CFPB). The course will also provide an introduction to structural modeling for conducting policy counterfactuals. Assignments will require students to work in R, Matlab, Stata or other statistical package of the student's choice (with permission of instructor).

Prerequisites: This course is restricted to MPP and master's students. Prerequisite(s): PPHA 32400 and PPHA 31202 preferred.

Required Textbook/ Software:
House of Debt, by Atif Mian and Amir Sufi (Available as an ebook or in print edition at major book sellers)

Otherwise, there is no required textbook for the course. Please see syllabus below for papers I would like you to read in advance of our weekly synchronous lecture.

Course assignments will require you to use a software program that can run multiple regression, such as Stata, Matlab, R or Python. Note: While I will make some R replication files available, many replication files for seminal papers we will discuss are only available in Stata.

Matlab licenses are available for free for UChicago students: https://uchicago.service-now.com/it?id=kb_article&kb=KB00012189

Stata can be accessed for free via vLab: http://vlab.uchicago.edu I suggest buying your own copy for the quarter. A 6-month Stata Basic Edition license is available for $48 https://www.stata.com/order/new/edu/profplus/student-pricing/

Exams and Grading:
There are no exams. Grading is based on:
Class attendance and participation (10%)
3 Problem sets (15% each)
Empirical replication exercise and "in-class" presentation (45%)

Problem Sets
Problem set answers should be uploaded to canvas. You should complete your own problem set and it should be based on your own work. But you may consult with each other.

Regrades
All regrade requests must be submitted in writing with a full explanation of why you think the work was incorrectly graded.

Empirical exercise – The final assignment will be a replication exercise and extension of a published empirical economics paper. Students may select an empirical paper we discussed in class or another paper of their choice, with my approval. This paper should have data publicly available, or posted on the authors'/ journal website, or posted by me on the course website. Students will attempt to replicate a key empirical specification in the paper, and expand upon the original paper in one or more of the following ways: adding an additional control variable; changing the functional form of the specification to include higher order terms or interaction terms; examining another dependent variable of interest; adding in additional years for the analysis; or extending the analysis to include a different region or country. Students should motivate their extension as economically interesting in some way, e.g. the new control variable addresses a potential omitted variable, or a reform has happened since the paper was originally published that merits adding more time periods. Null results are fine as long as they are properly motivated. **All students must meet with me 1:1 to discuss their project and receive feedback.**

You will prepare a short research paper and present the replication to the class in the final week. The assignment grade will largely depend on the economic motivation of the extension as made in the presentation.

Course Topics

The following is a list of planned topics we will discuss along with accompanying readings. Please read any assigned readings before the lecture and come prepared to discuss in our synchronous lecture. Additional seminal empirical papers will be discussed in class. With a few exceptions, I have tried to highlight selected readings below that have data available or make use of publicly available data so that you may draw on these for the empirical exercise assignment.

Week 1 - Introduction

We will review important mathematical and economic concepts to get the most out of the course: The time-value of money; utility functions and utility maximization, etc.

Week *1: Course overview and some fascinating facts*

> Main readings:
> Campbell, John. 2006. "Household Finance." *The Journal of Finance*, 61(4): 1553-1604.
> > https://doi.org/10.1111/j.1540-6261.2006.00883.x
>
> Hastings, Justine, Brigitte Madrian, and William Skimmyhorn. 2013. "Financial Literacy, Financial Education, and Economic Outcomes." *Annual Review of Economics.* Vol. 5, pp. 347-373.
> > *https://www.annualreviews.org/doi/abs/10.1146/annurev-economics-082312-125807*
>
> Warren, Elizabeth. 2007. "Unsafe at Any Rate." *Democracy,* No. 5.
> > https://democracyjournal.org/magazine/5/unsafe-at-any-rate/
>
> Jorda, Oscar, Katharina Knoll, Dmitry Kuvshinov, Moritz Schularick, Alan Taylor, "The Rate of Return on Everything" *Quarterly Journal of Economics,* 134(3): 1225-1298.
> > Please read the shorter policy summary:
> > https://voxeu.org/article/rate-return-everything
> > If you are interested, the full paper is here:
> > https://doi.org/10.1093/qje/qjz012
> > Data and Replication Files:
> > https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/GGD QGJ
>
> Lieber, Ron and Tara Bernard. "The Stark Racial Inequity of Personal Finances in America." *The New York Times.* 6/9/2020.

Topic #1 – Consumption and Saving

Week 2

Theoretical Overview of Consumption and Saving
*   a) Optimal consumption and saving, in a "perfect world"*
*   b) Dealing with uncertainty*
Empirical Evidence on Household Consumption, Income and Saving, Part 1

Parker, Jonathan, Nicholas Souleles, David Johnson, and Robert McClelland. "Consumer Spending and the Economic Stimulus Payments of 2008." *2013.*
https://www.aeaweb.org/articles?id=10.1257/aer.103.6.2530
Data and programs:
https://www.aeaweb.org/aer/data/oct2013/20110021_data.zip

Video - Bone "Thugs n' Harmony - First of tha month" [Warning: Song contains explicit contents and refers to activities that are not endorsed by your professor]
https://www.youtube.com/watch?v=FwI-a1LjpiA

Stephens, Mel. 2003. "3rd of tha Month": Do Social Security Recipients Smooth Consumption Between Checks? *The American Economic Review.* 93(1): 253-269.
https://www.aeaweb.org/articles?id=10.1257/000282803321455386
Data and programs:
http://www.umich.edu/~mstep/third_data.zip
http://www.umich.edu/~mstep/third_programs.zip

Farrell, Diana and Fiona Greig. 2015. "Weathering Volatility: Big Data on the Financial Ups and Downs of U.S. Individuals." *JPMC Institute Report.*
https://www.jpmorganchase.com/corporate/institute/document/54918-jpmc-institute-report-2015-aw5.pdf

Gelman, Michael, Shachar Kariv, Matthew Shapiro, Dan Silverman, and Steven Tadelis. 2014. Harnessing naturally occurring data to measure the response of spending to income. *Science* 345 (6193): 212-215.
http://science.sciencemag.org/content/345/6193/212.full
Replication files are available here:
https://eml.berkeley.edu/cgi-bin/HarnessingDataScience2014.cgi
(Warning: "Big" Data, you will need ~400MB of space)

Coibion, Olivier, Yuriy Gorodnichenko and Dmitri Koustas. "Consumption Inequality and the Frequency of Purchases." 2019 Working Paper.
http://dmitrikoustas.com/CGK_inequality.pdf
I will make the CEX replication files available on Canvas.

Week 3

Empirical Evidence on Household Consumption, Income and Saving, Part 2
Consumption with Incomplete/ Imperfect markets, Theoretical
Extensions

Olney, Martha. 2009. When Your Word Is Not Enough: Race, Collateral, and Household Credit. *The Journal of Economic History.* 58(2): 408-431.
https://doi.org/10.1017/S0022050700020568
I will make her final processed *.dta file available on Canvas.
You may also be interested in the original raw data are available from ICPSR:
Cost of Living in the United States, 1917-1919 (ICPSR 8299)
https://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/8299
Saving and Dissaving By 12,817 American Households, 1917-1919 (ICPSR 6276)
https://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/6276

Morse, Adair. 2011. "Payday lenders: Heroes or villains?" *Journal of Financial Economics.* Vol 102(1): 28-44.
https://www.sciencedirect.com/science/article/pii/S0304405X11000870

Baugh, Brian. 2016. **"**Payday Borrowing and Household Outcomes: Evidence from a Natural Experiment." Working Paper.
https://sites.google.com/site/briankbaugh/

Koustas, Dmitri. 2019. "What Can Big Data Tell Us About the Participation Decision for Gig Economy Jobs." *ASSA Papers and Proceedings.* Vol 109.
https://www.aeaweb.org/conference/2019/preliminary/paper/25kyS7a8
While I can't make the microdata available, some data on the gig economy geographically can be found in the Appendix of my paper:
"Is Gig Work Replacing Traditional Employment? Evidence from Two Decades of Tax Returns" (with Brett Collins, Andrew Garin, Emilie Jackson, and Mark Payne). *SOI Working Paper* 2019.
https://www.irs.gov/pub/irs-soi/19rpgigworkreplacingtraditionalemployment.pdf

Optional readings that may be of interest:

He, Hui, Huang, Feng, Liu, Zheng and Zhu, Dongming. 2018. "Breaking the "iron rice bowl:" Evidence of precautionary savings from the Chinese state-owned enterprises reform," *Journal of Monetary Economics*, 94(C): 94-113.
https://www.sciencedirect.com/science/article/pii/S0304393217301654

Zheng, Yu and Raül Santauelàlia-Llopis. "The Price of Growth: Consumption Insurance in China 1989-2009." Working Paper.
http://r-santaeulalia.net/pdfs/The-Price-of-Growth.pdf

Topic #2 – Asset Markets and The Distribution of Wealth
Week 4

Risky assets, risk tolerance, portfolio choice and asset pricing, a gentle theoretical overview
Real-world evidence
  a) facts on stock-market participation;
  b) the "equity-premium" puzzle;
  c) implications for inequality
  Video – Professor Thomas Sargent's views on interest rate uncertainty:
  https://www.youtube.com/watch?v=Khn1ZqysON0&feature=youtu.be

  Ryan, Carol. "Why Women Investors Won't Embrace Stocks." *The Wall Street Journal. 2/12/2021.*
   https://www.wsj.com/articles/why-women-investors-wont-embrace-stocks-11613125802

  Kuhn, Moritz, Moritz Schularick and Ulrike Steins. Income and Wealth Inequality in America, 1949-2016. *Forthcoming in the Journal of Political Economy*.
   Please read the shorter policy summary:
   https://voxeu.org/article/asset-prices-and-wealth-inequality
   If you are interested, the full paper is here:
 https://www.dropbox.com/s/4dbkqgaxp97ddk2/Wealthinequality_June2018.pdf?dl=0
   I have cleaned many of these underlying historical SCF data files and will be making them available on Canvas.
   See here for how to read the "modern" (since 1988) Survey of Consumer Finances using *R*:
   http://asdfree.com/survey-of-consumer-finances-scf.html

  Piketty, Thomas and Emmanuel Saez. 2003. "Income Inequality in the United States, 1913-1998." *Quarterly Journal of Economics.* 118(1): 1-39.
   Access it here for data: https://eml.berkeley.edu/~saez/
   More data here: https://wid.world

Saez, Emmanuel and Gabriel Zucman. 2016. "Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data." *Quarterly Journal of Economics*, Volume 131(2): 519-578.

> Please read the shorter summary:
> https://voxeu.org/article/exploding-wealth-inequality-united-states
> If you are interested, the full paper is here:
> https://academic.oup.com/qje/article/131/2/519/2607097

Topic #3 – Investing in your human capital and the student loan market

Week 5

Investing in Yourself (Via Human Capital Accumulation)
> *b) credits constraints and a simple model of*
> *asymmetric information motivating government intervention in the student loan market;*
> *c) student-loan refinancing and its effects on the risk pool (adverse selection)*

Evidence on the returns to college; the student loan market, structure and some facts

Greenstone, Michael and Adam Looney. 2011. "Where is the Best Place to Invest $102,000 — In Stocks, Bonds, or a College Degree?" *The Brookings Institution.*
> https://www.brookings.edu/research/where-is-the-best-place-to-invest-102000-in-stocks-bonds-or-a-college-degree/

Desjardins, Jeff. 2018. "Which College Degrees Get the Highest Salaries?"
> https://www.visualcapitalist.com/visualizing-salaries-college-degrees/

Schwandt, Hannes and Till von Wachter. 2019. "Unlucky Cohorts: Estimating the Long-Term Effects of Entering the Labor Market in a Recession in Large Cross-Sectional Data Sets" *Journal of Labor Economics.* 37(S1): S161-S198.
> https://doi.org/10.1086/701046

Looney, Adam and Constantine Yannelis. 2015. "A crisis in student loans? How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults." *Brookings Papers on Economic Activity*.
> https://www.brookings.edu/wp-content/uploads/2015/09/LooneyTextFall15BPEA.pdf
> A partial replication dataset is available here:
> https://www.brookings.edu/wp-content/uploads/2015/09/Looney-Yannelis-Data-Appendix-5-31-16.zip

"Mobility Report Cards: The Role of Colleges in Intergenerational Mobility"
> http://www.equality-of-opportunity.org/assets/documents/coll_mrc_paper.pdf
> Data for this (and other related cool projects) here:

http://www.equality-of-opportunity.org/data/

Topic #4 – Housing investment, the mortgage market, and the 2007-9 Financial Crisis

Week 6

Modeling Housing Investment
Empirical Evidence on Housing Markets
  b) the government policy landscape in the U.S.
  c) the role of housing in the 2007-9 financial crisis

This is incredibly prophetic (look at the date):
Shiller, Robert J. 2006. "Long-Term Perspectives on the Current Boom in Home Prices." *The Economists' Voice*. 3 (4).
  https://doi.org/10.2202/1553-3832.1145
  See Shiller's website for cool data on housing and long-run stock returns:
  http://www.econ.yale.edu/~shiller/data.htm

Mian, Atif and Amir Sufi. *House of Debt.* Especially Chapters 1-2, pp. 1-30.

Mian, Atif and Amir Sufi. 2014. "What Explains the 2007-2009 Drop in Employment" *Econometrica,* 82: 2197-2223.
  See here for the replication kit:
  https://faculty.chicagobooth.edu/amir.sufi/chronology.html

Video – CNBC's Rick Santelli's Chicago Tea Party
  https://www.youtube.com/watch?v=zp-Jw-5Kx8k

Parman, John and Trevon Logan. 2017. "Segregation and Homeownership in the Early Twentieth Century." *American Economic Review Papers and Proceedings.* 107 (5): 410-414.
  https://www.aeaweb.org/articles?id=10.1257/aer.p20171081
  For replication files for the segregation measure, see here:
  https://jmparman.people.wm.edu/dataandcode.html
  You will also need the full-count 1880 census:
  https://usa.ipums.org/usa/complete_count.shtml
Also see:
  "How Redlining Segregated Chicago, and America"
  https://www.chicagomag.com/city-life/August-2017/How-Redlining-Segregated-Chicago-and-America/
  MAPPING INEQUALITY: Redlining in New Deal America

Topic #5 – Retirement saving

Week 7

Modeling Retirement Saving
        a) The neo-classical model of retirement savings
        b) insights from behavioral economics

Empirical evidence on Retirement Saving

"Report on the Economic Well-Being of U.S. Households in 2017 - May 2018"
    https://www.federalreserve.gov/publications/2018-economic-well-being-of-us-households-in-2017-retirement.htm

CBO's 2016 Long-Term Projections for Social Security: Additional Information
    https://www.cbo.gov/publication/52298

Benartzi, Shlomo and Richard H. Thaler. 2013. "Behavioral Economics and the Retirement Savings Crisis." Science 333.
    http://science.sciencemag.org.proxy.uchicago.edu/content/sci/339/6124/1152.full.pdf

Temple-West, Patrick. **"**Can you really 'nudge' savings?" *Politico.* 6/7/2018.
    https://www.politico.com/agenda/story/2018/06/07/can-millennials-save-retirement-000665

Week 8

No formal lectures planned. We will have paper/ coding workshops. We may reserve for guest lectures /spillovers from previous weeks if we have guest lectures earlier. The main assignment this week is to work on your papers/presentation. I will meet 1:1 with each of you this week to discuss your papers.

Week 9
"In-Class" Presentations of Replication Exercises