Eco7207: Macroeconomic Theory II
Income, Consumption, and Household Behavior

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Course website (on FIU Canvas)

Class time and classroom: M/W 12:30p-1:45p, GC 271A

Office hours: M 10a-11a / W 11a-12p, or by appointment, DM 318A

Textbook

Adda, Jerome and Russell W. Cooper, <u>Dynamic Economics: Quantitative Methods and Applications</u>. The MIT Press, 2003. ([e-book link](), accessible through FIU library portal) (refered as AJ & RC)

Objective

The objective of this course is to help you familiarize with the theoretical foundation in macroeconomics that addresses the relationship between income, consumption, and savings/investments. We will introduce the basic theoretical underpinnings and confront them with real-world data, mostly from micro household surveys. The integration of one of the canonical macroeconomic theories with tangible empirical evidence is the hallmark of this course. Students are expected to be willing to as well as able to walk across the theoretical and the empirical sides of the research aisle comfortably.

Outline

(All journal articles listed below are available at the course website above. In addition, you can directly download them through provided URL with FIU account authorization. This reading list is subject to revision according to our class progress.)

1.Overview

Attanasio, Orazio P. and Guglielmo Weber, "[Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy]()", *Journal of Economic Literature*, Vol. 48, No. 3 (Sep. 2010), pp.693-751.

2.Preliminaries: Econometrics, Dynamic Programming and Data Sources

Cowpertwait, Paul S.P. and Andrew V. Metcalfe. *Introductory Time Series with R*, Chapter 2, 4, 6, 7, Springer, 2009 ([e-book link](), accessible through FIU library portal)

AJ & RC, Chapter 3 & 4.

Olivetti, Claudia, Dan Silverman and Jay Hong, "How to Access Standard Data Sources", memo, U Penn, 2002.

3.Life-cycle Model and Permanent Income Hypothesis: History and Present

   a) The Canonical Framework

DeJuan, Joseph P. and John J. Seater, "A Simple Test of Friedman's Permanent Income Hypothesis", *Economica*, Vol. 73, No. 289 (Feb., 2006), pp. 27-46.

Hall, Robert E., "Stochastic Implications of the Life cycle-Permanent Income Hypothesis: Theory and Evidence", *The Journal of Political Economy*, Vol. 86, No. 6 (Dec., 1978), pp. 971-987.

Flavin, Marjorie A., "The Adjustment of Consumption to Changing Expectations About Future Income", *The Journal of Political Economy*, Vol. 89, No. 5 (Oct., 1981), pp. 974-1009.

Hansen, Lars Peter and Kenneth J. Singleton, "Generalized Instrumental Variables Estimation of Nonlinear Rational Expectations Models", *Econometrica*, Vol. 50, No. 5 (Sep., 1982), pp. 1269-1286. (with Errata)

Vissing-Jørgensen, Annette, "Limited Asset Market Participation and the Elasticity of Intertemporal Substitution", *The Journal of Political Economy*, Vol. 110, No. 4 (Aug., 2002), pp. 825-853.

   b) Borrowing/Liquidity Constraint and Precautionary Saving
AJ & RC Chapter 6

Zeldes, Stephen P., "Consumption and Liquidity Constraints: An Empirical Investigation", *The Journal of Political Economy*, Vol. 97, No. 2 (Apr., 1989), pp. 305-346.

Deaton, Angus, "Saving and Liquidity Constraints", *Econometrica*, Vol. 59, No. 5 (Sep., 1991), pp. 1221-1248.

4.The Puzzle of Consumption at Retirement

Banks, James, Richard Blundell, and Sarah Tanner, "Is There a Retirement-Savings Puzzle?", *The American Economic Review*, Vol. 88, No. 4 (Sep. 1998), pp.769-788.

Aguiar, Mark and Erik Hurst, "Deconstructing Life Cycle Expenditure", *Journal of Political Economy*, Vol. 121, No. 3 (June 2013), pp. 437-492.

5.Modern Extension: Housing Wealth and Consumption

Cooper, Daniel, "Impending U.S. Spending Bust? The Role of Housing Wealth as Borrowing Collateral", Boston Fed Public Policy Discussion Papers No. 09-9.

Gan, Jie, "Housing Wealth and Consumption Growth: Evidence from a Large Panel of Households", *Review of Financial Studies*, 2010, 23 (6), pp. 2229-2267.

Grading
The total score is 100 points. There will be two problem sets assigned in class (10 points each), two in-class exams (20 points each), one in-class presentation (10 points) and a three-page research memo (30 points). There is no final exam but the research proposal has to be due by the end of the final week (Friday 11:59p).

Problem sets contain hands-on computing exercises. We aim for replicating some simplified results/findings in the literature. Students can work in pairs, and each pair only need to hand in one copy of solutions. Aside from whether the answer is correct or wrong, homework is also evaluated on the basis of execution and writing efforts.

The presentations are done by students choosing their papers of interest that are relevant to the course material. Indeed, exam questions may be based on these papers. The grading of presentations is primarily based upon the clarity in conveying the main idea and main results of the presented paper.

Each student should submit a written (double-spaced, 12pt or smaller) research memo. The goal is to help you take stock of the learned material, to make the initial attempt for research, and to start writing. The grading criterion is based on: (1) innovativeness of an idea or insight, however small, that emerges from your proposal; (2) the work is doable (even if you may never pursue it later); (3) there is a simple model, a set of equations, or preliminary empirical facts that would support your idea. Notice that the topic has to be somehow related to income/consumption/household economics. The minimum space requirement of writing is three pages, and the maximum is five. In particular, the literature review has to be concise, and be no more than one full page. (To those who have taken my Eco7424 course and who have written a research proposal related to household economics: should you decide on further pursuing the same idea, you have to show substantial research progress on the research, probably measured by an increment of three to five pages compared with the previous version.)

The time line for working on your research memo is as follows:
 • Two weeks after the midterm, the abstract is due.
 • Four weeks after the midterm, the literature review is due.
 • Six weeks after the midterm, the model/regression specification is due.
(The purpose is to see your work in progress, and I will not formally evaluate the content at these due dates.)

You are welcome to consult with me (or discuss with your fellow classmates) about what and how you want to write the proposal as the semester goes by. Healthy discussions foster research; doing so also prevents unpleasant surprise that may happen if you keep people in dark (e.g, others or I happen to know a paper that did *exactly* what you are thinking). **Plagiarism is never allowed, and will fail you for the course.**

Note that **the research proposal submission and at least one exam participation are mandatory** for you to pass this course.

Programming environment

Even though you are free to choose any language (Matlab, C++, Forthran, Java, etc.) that you would like to finish the numerical dynamic programming exercises, it is my educated view from surveying the landscape that Python is probably your best bet if you are starting afresh. In fact, I would encourage all of you to try Python regardless of whether you have learned other languages or not.

We will continue our Python tutorial sessions from time to time and it would be to your advantage to refresh your Python know-how from last semester. For this course, the Python tutorial is mainly based on Professors Thomas J. Sargent and John Stachurski's excellent website:
http://quant-econ.net/py/index.html
In addition, we may delve into HARK package (Heterogeneous Agents Resources and toolKit) to find out modules specifically-tailored for consumer dynamic modeling.

High Performance Computing Resources:
In case you think your program needs more computing power than that which your personal computer has, there are cloud-based options:
FIU High Performance Computing Center: request your account here.
Amazon High Performance Computing (fee-based)