Erik Hurst and Tom Winberry
33942: Empirical Macroeconomics – Micro Data for Macro Models
Fall 2016 (Tentative)

Course Schedule

The course is a 10-week course comprised of the entire fall quarter.   Erik will teach five lectures (tentatively weeks 1, 2, 4, 5, and 6) and will focus on using primarily household level data to address various questions of interest to macro economists.   Tom will also teach five lectures (weeks 1a, 3, 7, 8, and 9), using primarily firm level data to address questions of interest to macro economists. A few additional things to keep in mind:

- We will discuss homework 5 during week 10's lecture. We will also talk broadly about the academic job market for economists.
- There will be TWO lectures during week 1.   The first will be during the regularly scheduled class time. The second will be during the extended recitation session.
- For planning purposes, reserve December 5 - 8 for your research proposal presentations. This is finals week. YOU MUST REMAIN IN TOWN DURING FINALS WEEK.

Lecture Meeting Times

Monday 1:30 p.m. - 4:30 p.m., Harper Center, 3A

TA Session Meeting Times

Wednesday 5:15 p.m. - 7:00 p.m., Harper Center, 3A

* Note - During week 1, Tom will hold his first lecture during the TA session. On that night, the session will go from 5:15 - 8:15.   On certain extended sessions, we may also go past 7:00.

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Overview of Course

The goals for this course are the following:

(i)   Introduce students to a variety of data sources that can be used to test, calibrate and develop models of interest for macroeconomics and related fields.

(ii)   Introduce students to quantitative models which can be used to connect micro data to macro outcomes.

\(iii) Introduce students to important papers and research questions with high empirical content and relevant to macroeconomics, broadly defined.

(iv)   Get students to think hard about the genesis of research questions and the inputs into successful research.

Course Requirements

There is a lot of work in this course. Hopefully, all of it will be beneficial with respect to sharpening your research skills. Aside from attending class, doing the course readings, and participating in lectures and discussions, you will have three additional requirements: handing in homework assignments (data work, referee reports, quantitative exercises, and research development),attending our reading group (during recitation), and completing a final project (developing a preliminary research paper)

Note: *Auditors are expected to complete the components of the weekly assignments relevant to class discussion.*

   (1) There will be 5 homework assignments during the term: two for Erik's portion, two for Tom's portion, and one joint assignment. The joint assignment will be to write referee reports for the job market papers of top empirical macro students on the market this winter.

       Note: All questions on the homework should be directed to the TA (not Tom and Erik).

   (2) Also, we will have a reading group where the students will present papers to the class. We expect every registered student to present a paper during the term; the size of the registered class will determine presentation length. The reading group will meet during recitation. Tom will assign papers and presentation dates at the beginning of the term. In order to expose students to a broad range of topics as early in the sequence as possible, papers in the reading group will be

drawn from topics covered later in the empirical macro sequence. The goal is to allow students the freedom to begin working on a research idea related to topics covered later in the sequence.

(3) The final project for the course will be a 20 minute presentation on an original research topic which uses micro data and is of interest to macroeconomists. [Tom and I have a broad notion of what is interesting to macroeconomists – so, this should not be a constraint. In particular, the topic need to be drawn from the material covered in the course.] These presentations will occur during finals week of course (December 5th – 8th). All students (including auditors?) are required to present an idea for a research paper. The presentation should include (1) what specific question the paper asks, (2) why the question is interesting, (3) which data is needed to answer the question, and (4) how the question would be answered. Strong presentations will also include descriptive facts or preliminary results which suggest the idea will turn into a paper Student presentations should NOT include more than 10-12 slides. More information will be provided during the quarter.

Homework Due Date

The first four homework assignments are due to the TA by the Tuesday before recitation at 12:00 p.m (noon). No late homework assignments will be accepted. Plan your time accordingly. Tom's homework assignments will be due on October 11th and November 15th. Erik's homework assignments will be due on October 25th and November 8th. The joint homework will be due to the TA by Monday at 12:00 p.m. (noon) on November 28th.

Course Grading

- 60% of the course grade will be on the five homework assignments (12% each).
- 10% on your presentation of the paper and discussion of other papers in the reading group.
- 30% of the course grade will be on research proposal presentation during final's week.

Grades will be based on effort, originality/insight, execution, and clarity.

Homework assignments will be graded out of 12 by the TA. Also, the TA will grade your participation in the reading group. Erik and Tom will grade your research proposal presentation.

Reading Lists/Topics

Erik and Tom will provide separate reading lists for their portions of the course. See their respective web pages for more information.

Recitation Lectures

A list of topics for each recitation section is at the end of the syllabus. We will conduct the bulk of our reading group during the recitation lectures.

Macro Sequence Requirement

For those wishing to take the macro sequence this year, here are the requirements:

(1) Four courses are offered as part of the sequence. You must take three of the four courses for a grade. We do, however, encourage students to take all four courses.   In order to get certified as completing the macro sequence, you need to secure a B in at least three of the four courses offered as part of this year's sequence.

(2) You must submit an acceptable research paper by July 31st, 2017.

Research paper requirements:

(1) You must have one of the five faculty teaching in the sequence commit to being your paper reader by April 30th, 2016.

(2) You must contract with the reader the expectations for a suitable paper.

(3) The paper could take two forms: a paper replication or a virtual paper.   We explain both below.

(4) Paper Replication (option A):   You will take an existing paper with a substantial empirical component and replicate the paper's key findings.   If you choose this path, you must pick a paper for which you can secure the actual data used by the authors.   When you write up your results, you should talk about (1) why you picked the paper, (2) what the paper's goals were, (3) why you think those goals are interesting, and (4) what impact the paper has had on the profession.   When writing up your results, you should compare your results with that of the papers.   The hope is to match their results exactly.   However, that is sometimes very difficult to do. If that is the case, you should compare where your results differ from theirs.   Finally, you should extend the paper in some substantive way.   For example, you can show the robustness of the paper's results to some additional specification, sample, or time period.   You need to defend why you think these additional robustness tests are interesting.   Are the paper's results robust to these alternate specifications?   Your faculty reader will provide more details about their expectations.

(5) Paper Replication (option B):   You will take an existing paper with a substantial theoretical or computational component. You will then extend the paper's theoretical or quantitative results in some substantive way.   For example, the paper may have made "assumption A".   You may explore whether the paper's results hold if that assumption is relaxed or if "assumption B" is made instead.   Like above, you need to talk about (1) why you picked the paper, (2) what the paper's goals were, (3) why think these goals are interesting, and (4) what impact the paper has had on the profession.   Also, you need to defend why you think your extensions of the model are interesting.   Are the paper's results robust to these alternate specifications? Your faculty reader will provide more details about their expectations.

(6) Virtual Paper: Instead of replicating an existing paper, you can choose to start to write your own paper. Instead of submitting a completed paper, you could instead submit what we call a "virtual paper". If you choose this path, students will be required to formulate an *original research idea*, *develop a practical plan for executing the idea,* and *take initial steps in the execution*. An empirical virtual paper should include an introduction (what is the question and why is the question of interest?), a literature review (how does your paper fit into the broader literature?), a theoretical motivation section (this could be actual theory or just a sketch of the relevant theory that underlies your question), a data section (what existing data sets exist to answer this question?), and empirical methodology section (how would use the data to answer your question – keeping in mind concepts of identification and causality), falsification tests (what other specifications, tests, etc. could either bolster or cast doubt upon your primary tests), and some preliminary results (anything you have done so far to see if the paper will pan out). A theoretical virtual paper will be similar. However, more progress will be made setting up the model and talking about the expected predictions of the model. Intuition should be provided for those predictions. Your faculty reader will provide more details about their expectations.

Note: We recommend that you write a virtual paper in order to start down the path of producing original research. Given that our final project is to come up with an original research topic, it is natural to continue developing this topic into a virtual paper.

TA Sessions/Homework Dates

September 28:   Tom's First Lecture (session goes to 8:15).

October 5:   John will review many major household and firm datasets. He will also discuss how to present and display empirical results in papers/homework. Finally, he will give his thoughts on the genesis of research ideas.

October 12:   Tom Homework #1 Discussion (Homework due on the 10th).   Reading group presentation(s).

October 19:   Reading group presentation(s).

October 26:   Erik Homework #1 Discussion. Presentation of homework results by students. No reading group this week.

November 2:   Reading group presentation(s).

November 9:   Erik Homework #2 Discussion.   Reading group presentation(s).

November 16:   Tom Homework #2 discussion. Reading group presentation(s).

November 23:   No session – Thanksgiving.

November 30:   Reading group presentation(s).

December 7:   Presentation of paper topics.