

# 14.06

## Intermediate Macroeconomic Theory

### Paper Requirement

#### A. Dates:

March 31<sup>st</sup>      Rough draft due to Amir  
April 7<sup>th</sup>        Rough drafts returned  
April 30<sup>th</sup>      Final draft due to Amir

The deadlines for the paper will be strictly enforced, unless there are extreme circumstances.

#### B. Content:

We are looking for a paper that is 20-25 pages, double-spaced, with a 12pt Times New Roman font. Please do not hand in anything over 30 pages.

The topic of the paper is financial markets and growth. There is a very large literature on how the development of financial markets may affect growth or vice-versa, and how the development of an economy and its financial markets are inter-related. We are looking for papers that fit into this general area of research. For more concrete examples of the area of research toward which we are directing you, please see the articles listed at the end of this document.

There are 3 types of papers that are possible:

#### 1. Empirical Analysis

An empirical analysis seeks to test various established theories, or seeks to introduce novel concepts, by examining real world data. An absolute must for an empirical analysis is the gathering and examination of a data source.

An empirical paper typically states a theoretical prediction (or several possible predictions) and seeks to test the prediction in a real world setting. For example, a common theoretical dilemma is whether the development of financial systems cause improved growth, OR whether financial systems simply develop in areas of high growth potential. They key empirical analysis would attempt to discern the causal pattern: does an improved financial system cause high growth or does high growth lead to an improved financial system?

If you choose an empirical paper, we expect you to review the literature on your topic of choice, find new data, and do a new stastical analysis. While this type of

analysis may at first seem the most daunting, we hope to make it easier by providing you with several possible sources of data. These are listed below in Section E.

## 2. Theoretical Paper

A theory paper seeks to introduce new economic intuition through formal (i.e., mathematical) analysis. Theory papers typically start with basic intuitive assumptions and try to show interesting and novel results through the use of a model.

A theory paper for this course would typically start with an established theory paper in the literature, add variations and try to draw new insights into the relationship between financial markets and growth. We do not expect a full-blown new model, but we do expect significant variations on existing models that offer valuable insight. A theory paper should explore the relevant existing literature, develop an existing model, make significant changes to the model, draw new insights, and explore the new predictions of the model.

## 3. Mixed empirical and theoretical paper

A mixed paper should rigorously compare and contrast different theories and then look to the empirical literature for support. Simply stating the predictions of various models is not sufficient; we expect a detailed formal (i.e., mathematical) analysis of the different theories and what drives the different results. For example, what are the different assumptions? What are the different predictions? Which is best supported by the empirical literature?

A mixed paper should be much more comprehensive in its treatment of the existing literature and how various theories are supported by the different empirical analyses.

Please notice that in all three types of paper, we want more than just a summary of a paper or a simple review of the literature.

### **C. Structure:**

While this structure is not rigid, we expect in all papers the following:

- Introduction with a main thesis
- Background of existing research in your area
- Development of the content that supports your thesis
- A conclusion
- A citation of sources

## D. Help

The TA for the paper is Amir Sufi. Amir will be available to help with your papers throughout the semester. Amir will have formal office hours every week from 1-4pm on EITHER Mondays, or Wednesdays, depending on demand. PLEASE MAKE SURE TO EMAIL AMIR IF YOU ARE PLANNING ON COMING TO OFFICE HOURS!!!

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## E. Data and Articles

- EconLit is the best source of citations for any relevant articles
- Here is a list of potential data sources and a brief description of each
  - S&P COMPUSTAT : Firm level data on U.S. public firms, available by establishing an account at <http://wrds.wharton.upenn.edu/>
  - Federal Reserve Data: A plethora of data sources on banks, interest rates, monetary figures, and a variety of other valuable data.  
[http://www.chicagofed.com/economic\\_research\\_and\\_data/data\\_index.cfm](http://www.chicagofed.com/economic_research_and_data/data_index.cfm),  
<http://www.federalreserve.gov/releases/>
  - CRSP Data: Data on historical stock prices for every U.S. Public firms, available by establishing account at available by establishing an account at <http://wrds.wharton.upenn.edu/>
  - The Organization of Economically Developed Countries (OECD): A variety of country-level data.
  - The World Bank: A variety of country-level data
  - The IMF's International Financial Statistics Handbook: A variety of detailed country-level financial data. This is available at the Dewey Library.
- To help get started, we suggest the following articles, which should all be available on JSTOR. We HIGHLY SUGGEST everyone read the first article, which is an excellent introduction to the literature.

Levine, R. (1997), "Financial Development and Economic Growth: Views and Agenda," *Journal of Economic Literature* 35, 688-726.

### MOSTLY EMPIRICAL

King, R. and R. Levine (1993), "Finance and Growth: Schumpeter Might be Right," *Quarterly Journal of Economics*, 108: 717-737.

Levine, R. and S. Zervos (1998), "Stock Markets, Banks, and Economic Growth," *American Economic Review*, 88: 559-586.

Rajan R. and L. Zingales (1998), "Financial Dependence and Growth," *American Economic Review*, 88: 559-586.

Jayaratne, J. and P. Strahan (1996), "The Finance-Growth Nexus: Evidence from Bank Branching Deregulation," *Quarterly Journal of Economics* 111(3), 639-70.

#### MOSTLY THEORY

Bencivenga, and Smith, B. (1991), "Financial Intermediation and Endogenous Growth," *Review of Economic Studies*.

Obstfeld, M. (1994), "Risk-Taking, Global Diversification, and Growth," *American Economic Review*, 84: 1310-1329.

Devereux, M. B., and Smith, G. W. (1994), "International Risk-Sharing and Economic Growth," *International Economic Review* 35, 535-550.

Acemoglu, D., and Zilibotti, F. (1997), "Was Prometheus Unbound by Chance? Risk, Diversification, and Growth," *Journal of Political Economy* 105, 709-751.