



Macroeconomic Analysis with Financial Frictions Module 4, 2022

Course Information

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Office Hour: Monday & Thursday 15:30 – 16:30

Teaching Assistant: n/a

Classes:

Lectures: Monday & Thursday, 13:30 – 15:20

Venue: PHBS Building, Room TBA

1. Course Description

1.1 Context

Course Overview: This class studies theoretical and quantitative approaches to understanding economies with search frictions in goods, labor, and financial markets. This departure from classical equilibrium theory generates many interesting phenomena such as unemployment, pricing strategies, production capacity choices, bargaining over financial contracts, insurance, and business cycles. We then develop tools for analyzing the dynamics (both local and global) of macroeconomies characterized by market imperfections, and glean insights for financial and fiscal multipliers, the formation of prices and wages, the dynamics of the labor market, efficiency, and policies. Underlying all this analysis are implications for how search frictions alter our understanding of the macroeconomy relative to the neoclassical view.

Technical Requirements: You are expected to have foundational knowledge in algebra and calculus which includes: arithmetic with rational expressions, build and interpret real valued functions, solve equations and inequalities, exponential and logarithmic functions, differentiation, graphs of functions. Additionally, all students are expected to have basic competence in Microsoft Excel which includes: importing data, manipulating data, writing equations, creating graphs and charts.

1.2 Textbooks and Reading Materials

There is no required textbook for this class. Recommended textbooks include:

1. Petrosky-Nadeau and Wasmer (2017). Labor, Credit, and Goods Markets: The Macroeconomics of Search and Unemployment first edition. The MIT Press.
2. Christopher Pissarides (2000). Equilibrium Unemployment Theory, second edition. The MIT Press.

Curriculum Overview: Search-theoretic models of exchange have developed dramatically in both economic and financial literature because they are extremely useful in understanding certain markets and phenomena that are difficult---if not impossible---to understand in the conventional, frictionless paradigm. Building largely on the work of 2010 Nobel laureates Peter A. Diamond, Dale T Mortensen, and Christopher A. Pissarides, this class provides a theoretical and quantitative approach to search markets so that students understand the latest insights to labor, finance, and goods markets.

PART I, THE LABOR MARKET: MACROECONOMICS OF SEARCH AND UNEMPLOYMENT

The first part of the course discusses long-term relationships in frictional markets, with the leading example being the labor market. We develop foundational tools related to search and matching theory and analyze how these market imperfections affect wage formation, unemployment dynamics, and efficiency in the labor markets. Inefficiencies of decentralized search markets naturally lead to introducing policy instruments, which we explore along the lines of hiring subsidies and firing costs. Next, we cover the business cycle properties of economies with frictional labor markets which introduces the concept that search frictions contribute to macroeconomic volatility. As part of this discussion, we will look at how local versus global solution methods may affect the quantitative results of macroeconomic models.

PART II, THE FINANCIAL MARKET: CREDIT FRICTIONS AND FINANCIAL MULTIPLIERS

The second part of the course focuses on spot trades in decentralized markets, with the leading example being over-the-counter financial markets. We learn the types of financial intermediaries and institutions that arise to alleviate frictions in the exchange of assets, and how these trading arrangements affect asset prices and liquidity. Next, we integrate the labor market studied in part one, with the asset market to see how frictions interact to affect financial multipliers and business cycles.

PART III, THE GOODS MARKET: PROPOGATION OF BUSINESS CYCLES

The third part of the course focuses on consumer choice in the presence of goods market frictions, with the leading example being retail consumption. We see that the existence of frictions in the goods market introduces many new features such as unused capacity by firms, demand shocks as a source of fluctuations, and a role for advertising by firms and consumer search effort. The interaction of frictions across markets generates novel implications for how economies respond to shocks, fiscal multipliers, and financial multipliers

2. Learning Outcomes

2.1 Intended Learning Outcomes

Learning Goals	Objectives	Assessment (YES with details or NO)
1. Our graduates will be effective communicators.	1.1. Our students will produce quality business and research-oriented documents.	YES – submit a final project that demonstrates research oriented analytical thinking and professional presentation
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	YES – exams and the final project requires students to demonstrate analytical skills and defend their conclusions

		by referring to economic models
2. Our graduates will be skilled in team work and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	YES – engage in group work during class which may include worksheets, discussions, or presentations
	2.2. Students will be able to apply leadership theories and related skills.	NO
3. Our graduates will be trained in ethics.	3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it.	NO
	3.2. Our students will practice ethics in the duration of the program.	YES – students are always expected to adhere to high standards of ethics and honesty related to coursework
4. Our graduates will have a global perspective.	4.1. Students will have an international exposure.	YES – curriculum is international trade
5. Our graduates will be skilled in problem-solving and critical thinking.	5.1. Our students will have a good understanding of fundamental theories in their fields.	YES – students will learn both classical theories and recent work on the frontier of this field
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	YES – discuss the costs/benefits of international trade and the organization of businesses within a global market
	5.3. Our students will demonstrate competency in critical thinking.	YES – problem sets, exams, and in-class learning activities require to students to use the frameworks discussed in class to analyse new problems

2.2 Course specific objectives

1. Identify how search and matching markets are different from frictionless markets, and discuss the attributes of labor/goods/credit markets that justify modelling these markets as competitive versus decentralized.
2. Characterize the long-run relationship between wages, unemployment, and labor market frictions
3. Define the policy trade-offs associated with improving efficiency of frictional labor markets.
4. Describe how using search and matching markets alters steady state estimates of the macroeconomy and its dynamics over the business cycle.
5. Define over-the-counter markets.
6. Analyze how financial market frictions affect asset prices, market liquidity, and asset liquidity.
7. Identify how goods market frictions generates aggregate demand externalities, and describe how these impact financial and labor markets.
8. Discuss how fiscal and monetary policy behave differently under search and matching markets versus neoclassical models of the macroeconomy

2.3 Assessment/Grading Details

Your final grade is a weighted average of your performance in the following categories:

Homework 30%
Learning Activities 30%
Research Proposal 40%

Please refer to the course calendar for due dates and the examination dates.

Attendance: I will not be taking attendance. However, it is very important that you regularly attend lecture for two reasons: (1) the best source of information to study for exams comes from lecture notes and these arrive only twice per week; (2) there are graded in-class learning activities for which you only receive credit if you attend class. When you are in attendance, please be mindful of appropriate class etiquette. Please do not use electronic devices for any purpose unrelated to class work. Please do not work on materials related to other classes. You may not take pictures in class or use any audio/visual recording device.

Learning Activities: Most weeks you are expected to participate in a learning activity. These may include worksheets, group discussion, outside readings, quizzes etc. These activities are intended to help you understand and work with the material presented during lecture. They are meant to be collaborative so please be prepared to engage in group work. Your work will be submitted the same day the activity is completed in class.

Homework: There are two homework assignments throughout the module. Assignments will include both analytical problems and data-driven work. You are expected to collect and analyze trade data procured from publicly available sources. These assignments will be rather lengthy so you should plan accordingly. Homework should be submitted at the beginning of class on the due date. Late submissions delivered before the end class will receive a 10% penalty. Late submissions delivered within 24 hours will receive a 50% penalty. No credit will be given for any submissions delivered after 24 hours.

Research Proposal: You are required to submit a research proposal on a topic related to macroeconomics. Details of the proposal will be discussed during class, but generally you should be prepared to write a motivation describing why your chosen topic is important, what academic work has been done so far, and how you execute a research paper that says something new and interesting (i.e. model framework, methodology, data collection etc.).

Final Grades: Your final grade will be determined by the following percentage scale.

A 90-100 (4.0 GPA)	A- 87-89 (3.7 GPA)	B+ 83-86 (3.3 GPA)	B 80-82 (3.0 GPA)	B- 76-79 (2.7 GPA)	C+ 73-75 (2.3 GPA)
C 70-72 (2.0 GPA)	C- 67-69 (1.7 GPA)	D+ 63-66 (1.3 GPA)	D 60-62 (1.0 GPA)	F 0-59 (0.0 GPA)	

Note that you must earn a grade of D or higher to receive credit.

2.4 Academic Honesty and Plagiarism

It is important for a student's effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is

considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

For more information of plagiarism, please refer to *PHBS Student Handbook*.