Economics 242

Markets with Frictions

Department of Economics
University of Pennsylvania
Fall 2015

Instructor: Guido Menzio, gmenzio@sas.upenn.edu
Teaching Assistant: Tim Hursey, thursey@sas.upenn.edu

Time and Location of Class: Tuesday, Thursday 1:30-3:00, STIT B21.
Final Examination: TBD.
Office Hours: McNeil Building 467, Wednesday 5:30-6:30 (Instructor),
McNeil Building 472, Monday 4:00-5:00 (Assistant),
McNeil Building 472, Thursday 4:00-5:00 (Assistant).

Prerequisites: Calculus, Intermediate level micro, Intermediate level macro, Statistics.
Readings: Research articles available on Jstor, www.jstor.org.

Objective and Content of the Course

Neoclassical economics studies the equilibrium and welfare properties of markets in which all the participants have complete information about the quality and price of the traded goods, and all the transactions are carried out through a centralized clearing house (the Walrasian auctioneer). While the neoclassical framework is helpful to understand the basic forces behind the determination of prices, consumption and production, it is far too stylized to explain some important phenomena that we observe in the actual labor, credit and product markets. For example, in the neoclassical framework, all markets clear—in the sense that prices equate the supply and demand of every good traded in the economy. However, in the actual labor market, we typically observe excess supply, as many workers are willing to accept the going wage but cannot find employment. Similarly, in the actual credit market, we typically observe excess demand, as many households are willing to take out loans at the going rates but cannot find funding. Moreover, in the neoclassical framework, there is a unique price for every good. However, in the actual labor market, workers with exactly the same education, experience and age are paid widely different wages. Similarly, in the actual product market, the same can of soda sells at very different prices across different stores in the same neighborhood.

In this class, we will study the equilibrium and efficiency properties of markets in which there are information frictions—in the sense that market participants have limited information regarding the quality and price of various goods—and transaction frictions—in the sense that market transactions are carried out in a decentralized fashion. We will show that realistic information and transaction fictions can provide a simple and natural explanation for unemployment, credit rationing, wage inequality, price dispersion, as well as for other phenomena that cannot be understood in the context

of the neoclassical framework. Moreover, we will show that, once information and transaction frictions are taken into account, the market allocation need not be efficient and appropriate government interventions may lead to welfare gains.

Reading List

1. Akerlof, G. 1970. "The market for "lemons": quality uncertainty and the market mechanism". *Quarterly Journal of Economics* 84: 488-500. (A70).

2. Banerjee, A. 1992. "A simple model of herd behaviour." *Quarterly Journal of Economics* 107: 797-817. (B92)

3. Bikhchandani, S., D. Hirshleifer, and I. Welch. 1992. "A theory of fads, fashion, custom, and cultural change as informational cascades." *Journal of Political Economy* 100: 992-1025. (BHW92)

4. Burdett, K., and K. Judd. 1983. "Equilibrium price dispersion." *Econometrica* 51: 955-969. (BJ83)

5. Burdett, K., and D. Mortensen. 1998. "Wage differentials, employer size and unemployment." *International Economic Review* 39: 257-273. (BM98)

6. Diamond, D., and P. Dybvig. 1983. "Bank runs, deposit insurance, and liquidity." *Journal of Political Economy* 91: 401-419. (DD83)

7. Diamond, P. 1982. "Aggregate demand management in search equilibrium." *Journal of Political Economy* 90: 881-895. (D82)

8. Diamond, P. 2011. "Unemployment, Vacancies, Wages." *American Economic Review* 101: 1045-1072. (D11)

9. Kaplan, G., and G. Menzio. 2014. "The Morphology of Price Dispersion." *International Economic Review*. (KM14)

10. Kiyotaki, N., and R. Wright. 1993. "A search-theoretic approach to monetary economics." *American Economic Review* 83: 63-77. (KW93)

11. McCall, J. 1970. "Economics of information and job search." *Quarterly Journal of Economics* 84: 113-126. (M70)

12. Mortensen, D. 2011. "Markets with Search Frictions and the DMP Model." *American Economic Review* 101: 1073-1090. (M11)

13. Pissarides, C. 1985. "Short-run equilibrium dynamics of unemployment, vacancies and real wages." *American Economic Review* 75: 676-690. (P85)

14. Rogerson, R, R. Shimer, and R. Wright. 2005. "Search-theoretic models of the labor market: a survey." *Journal of Economic Literature* 18: 959-988. (RSW05)

15. Shapiro, C, and J. Stiglitz. 1984. "Equilibrium unemployment as a worker discipline device." *American Economic Review* 74: 433-443. (SS84)

16. Stilgitz, J. 2002. "Information and the change in the paradigm of economics." *American Economic Review* 92: 460-501. (S02)

17. Stiglitz, J., and A. Weiss. 1981. "Credit rationing in markets with imperfect information." *American Economic Review* 71: 393-410. (SW81)

Course Calendar

Aug 27	Introduction	S02, D11, M11
Sep 1-3	LM1: Efficiency wages	SS84
Sep 8-15	LM2: Search unemployment	P85, RSW05
Sep 10	*No class*	
Sep 17-22	LM3: Unemployment fluctuations	D82
Sep 24-Oct1	LM4: Wage inequality	BM98, RSW05
Oct 6	Review Session/Catching up	
Oct 8	*Fall break*	
Oct 13	**Midterm #1**	
Oct 15-22	PM1: Price Dispersion	KM14, BJ84
Oct 27-29	PM2: Adverse Selection	A70
Nov 3-5	CM1: Fiat money and bubbles	KW93
Nov 10-12	CM2: Banks and bank runs	DD83
Nov 17	*No class*	
Nov 26	*Thanksgiving break*	
Nov 19-Dec 3	CM4: Herd behaviour	B92, BHW92
Dec 8	**Midterm #2**	
TBA	**Final Examination**	

Exams and Grades

There are two ways to fulfil the class requirements. You can choose to take the two midterms that will be administered throughout the semester. In this case, your total score (and class grade) will be determined as the (equally) weighted average of your two scores in the midterms. Alternatively, you can choose to take the final exam. In this case, your total score (and class grade) will be determined by your score in the final. Note that there will be no make-up for the midterms. Therefore, if you miss one of them, you will have to take the final. If you miss the final, you can sign-up for the make-up exam at the beginning of next semester.

Throughout the semester, three or four assignments will be posted on canvas. The solution to the assignments will be presented by the Teaching Assistant during review sessions.