

Hong Kong University of Science and Technology, Department of Economics

ECON 61200

Instructor: Pengfei Wang, Professor

2 credit

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Syllabus

### Description

**Course objective:** The objective of this course is to study the implications of financial market imperfections for macroeconomics and finance. These imperfections include uninsurable idiosyncratic risks, asymmetric information, moral hazard, agency costs, adjustment costs, and taxation.

**Learning objective:** The learning objective is for students to be familiar with frontier research topics and to find suitable thesis topics. Also the students are expected to learn how to present their research ideas.

**Teaching and learning activities** The instructor will teach half of the class focusing the theoretical foundation of financial imperfections and their qualitative implications. The students are expected to present papers for the rest the class. Computational methods are necessary for solving and estimating the models presented in class. The best way to learn computational and empirical methods is learning-by-doing. Thus, students are expected to complete a computation/estimation project.

Motivated MSc students are also welcomed to take the course. The instructor will provide enough background training for students who are not familiar with the modern business cycle theory.

### Course requirement and Grading policy:

Class attendance is required. Students are also expected to present recent research papers and replicate some published papers. The final course performance is based on the following weights:

- Class participation and presentation: 50%. Each students need to present at least one paper from the paper list which is marked with \*, or a paper which is not in the list after explicit permission from instructor.

· Computation project: 50%: students who enroll in the class need to replicate one paper. The paper can either be in the list or not in the list. In the latter case, permission from the instructor is needed.

Enrollment requirement: Students should be familiar with Econ 5100, Econ 5210 and Econ 5250.

## **Course Outline/ Schedule**

### **Financial Intermediaries and Business Cycles**

#### **Introduction (1 week)**

- Kiminori Matsuyama, 2007, Aggregate Implications of Credit Market Imperfections.

#### **Theory (two weeks)**

- Modigliani, Franco, and Merton H. Miller, 1958, The cost of capital, corporation finance and the theory of investment, *American Economic Review* 48, 267-297.
- Kiyotaki, N. and J. Moore, 1997, Credit Cycles, *Journal of Political Economy* 105, 211-248.
- Douglas Gale, Martin Hellwig, "Incentive-Compatible Debt Contracts: The One-Period Problem", *The Review of Economic Studies*, Vol. 52, No. 4. (Oct., 1985), pp. 647-663.
- Holmstrom, Bengt, and Jean Tirole, 1997, Financial Intermediation, Loanable Funds, and the Real Sector, *Quarterly Journal of Economics*, Vol. 112, No. 3, pp. 663-691.
- Lecture notes on Trade off (Tax Benefit VS bankruptcy cost) Theory

#### **Asset Pricing and Real Economy (Student Presentation)**

- \*Campbell, 1999, Asset Prices, Consumption, and the Business Cycle, Chapter 19 in John B. Taylor and Michael Woodford eds., *Handbook of Macroeconomics*, Volume 1, North-Holland: Amsterdam, 1231-1303.
- \*Campbell, John, 2003, Consumption-Based Asset Pricing", Chapter 13 in George Constantinides, Milton Harris, and Rene Stulz eds. *Handbook of the Economics of Finance* Vol. IB, North-Holland, Amsterdam, 803-887.
- \*Cochrane, J. H., 2005, *Financial Markets and the Real Economy*, Mimeo, University of Chicago.
- \*Jermann, Urban, 1998, Asset Pricing in Production Economies, *Journal of Monetary Economics* 41, 257-275.

- \*Boldrin, Michele, Lawrence J. Christiano, and Jonas D. M. Fisher, 2001, Habit Persistence, Asset Returns and the Business Cycle, *American Economic Review* 91, 149-166.
- \*Gomes, J., A. Yaron, and L. Zhang, 2003, Asset Prices and Business Cycles with Costly External Finance, *Review of Economic Dynamics* 6, 767-788.
- \*Gomes, Joao, Leonid Kogan and Lu Zhang, Equilibrium Cross Section of Returns, *Journal of Political Economy* 111, 693-732.
- \*Lettau, Martin, 2003, Inspecting the Mechanism: Closed-Form Solutions for Asset Prices in Real Business Cycle Models, *Economic Journal* 113, 550-575.
- \*Tallarini, Thomas J. 2000, Risk-Sensitive Real Business Cycles, *Journal of Monetary Economics* 45, 507-532.
- \*Gomes, Joao, and Lukas Schmid, 2008, Levered Returns, forthcoming in *Journal of Finance*.
- \*Caldara, Dario, Jesus Fernandez-Villaverde, Juan F. Rubio-Ramirez, and Yao Wen, 2009, Computing DSGE Models with Recursive Preferences, working paper, U. Penn.
- \*Gomes and Michaelides Review of Financial Studies, David Asset Pricing with Limited Risk Sharing and Heterogeneous Agents

## **Financial Crisis, Bubbles and Crashes**

### **Rational Bubbles (Two weeks,)**

- Allen, F. and Gale, D., 2007, *Understanding Financial Crises*, Oxford University Press.
- Allen, F. and Gale, D., 2008, *Financial Crisis*, Edward Elgar Publishing Ltd.
- Diamond, P., "National Debt in a Neoclassical Growth Model," *American Economic Review* 55:1126-1150, 1965.
- Tirole, Jean, 1985, Asset Bubbles and Overlapping Generations, *Econometrica* 6, 1499-1528.
- Pengfei Wang and Wen Yi, *Speculative Bubbles and Financial Crisis*, *AEJ Macro*: forthcoming.
- Jianjun Miao and Pengfei Wang, 2018 *Asset Bubbles and Credit Constraints*, *AER*.
- Jianjun Miao, Pengfei Wang, Zhiwei Xu, 2015, A Bayesian DSGE Model of Stock Market Bubbles and Business Cycles, *Quantitative Economics*.
- *Monetary Policy and Rational Asset bubbles*, Jordi Gali, 2014, *AER*.
- \*Lorenzoni and Hellwig, *Bubbles and Self-Enforcing Debt*, *Econometrica*, 2009

### **Speculative Bubbles (One week)**

- Harrison, J. M. and D. M. Kreps, 1978, Speculative Investor Behavior in a Stock Market with Heterogeneous Expectations, *Quarterly Journal of Economics* 92, 323-336.
- Tirole, Jean, 1982, On the Possibility of Speculation under Rational Expectations, *Econometrica* 50, 1163-1182.

- \*Scheinkman Jose and Wei Xiong, 2003, Overconfidence and Speculative Bubbles, Journal of Political Economy 111, 1183-1219.
- \*Abreu D. and M. Brunnermeier, "Bubbles and Crashes," Econometrica, 71:173-204, 2003.
- Allen, Franklin, and Gary Gorton, 1993, Churning Bubbles, Review of Economic Studies 60, 813--836.
- Allen, F. and Gale, D, 2000, Bubbles and Crises, Economic Journal, vol. 110, pp. 236-255.

### **Bank Run and Crises (one week)**

- Diamond, D. and P. Dybvig, 1983, Banks Runs, Deposit Insurance, and Liquidity, Journal of Political Economy 91, 401-419.
- Allen, F. and Gale, D, 1998, Optimal Financial Crises, Journal of Finance, 1245-1284.
- Chang, R. and A. Velasco, 2001, A Model of Financial Crisis in Emerging Markets, Quarterly Journal of Economics 116, 489-517.
- Diamond, D., 1997, Liquidity, banks, and markets, Journal of Political Economy 105, pp. 928 – 956.
- Stephen Morris; Hyun Song Shin, 1998, Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks, The American Economic Review, Vol. 88, No. 3. (Jun., 1998), pp. 587-597

### **Aggregate Liquidity (Student Presentation)**

- Brunnermeier, M. ,Deciphering the 2007/8 Liquidity and Credit Crunch, 2009.
- \*Holmstrom, B. and J.Tirole, Private and Public Supply of Liquidity, Journal of Political Economy 106:1-40, 1998
- Diamond, D. and R.Rajan ,Liquidity Risk, Liquidity Creation and Financial Fragility, Journal of Political Economy, 109:287-327, April 2001.
- \*Eisfeldt, A., "Endogenous Liquidity in Asset Markets." Journal of Finance, 59:1-30, February 2004.
- Myers, S. and R. Rajan, 1998, "The paradox of liquidity," Quaterly Journal of Economics 113, pp. 733 – 739.
- Diamond, D., 1984, "Financial intermediation and delegated monitoring," Review of Economic Studies 51, pp. 393 – 414.
- \*Douglas W. Diamond and Raghuram G. Rajan, Fear of fire sales and the credit freeze, Forthcoming at QJE.
- \*Brunnermeier and Pedersen, Market Liquidity and Funding Liquidity, The Review of Financial Studies, 2009.

### **Information Frictions**

- Stephen Morris and Hyun Song Shi, **Global Games**: Theory and Applications.
- Grossman, Sanford J. and Joseph E. Stiglitz (1980), On the Impossibility of Informationally Efficient Markets, *AER*, 70 (3), 393-408.
- Jess Benhabib, Pengfei Wang and Yi Wen, Uncertainty and Sentiment-Driven Equilibria, *Econometrica*, Volume 83, Issue 2, pages 549–585, March 2015
- Jess Benhabib, Xuewen Liu and Pengfei Wang, Sentiments, Financial Markets, and Macroeconomic Fluctuations, *JFE*, 2016.
- Jess Benhabib, Xuewen Liu and Pengfei Wang, [Financial Markets, the Real Economy, and Self-fulfilling Uncertainties](#), *JF*, forthcoming.

### Student Presentation

- Michael Sockin and Xiong Wei, Informational Frictions and Commodity Markets, *Journal of Finance*, Forthcoming
- Itay Goldstein and Liyan Yang, Information Diversity and Complementarities in trading and information acquisition, *Journal of Finance*, 2005, vol 70(4): 1723-1765.
- Goldstein, Itay, Emre Ozdenoren and Kathy Yuan Trading Frenzies and Their Impact on Real Investment, *Journal of Financial Economics*, 109(2), 566–582, 2013.
- Goldstein, Itay, Emre Ozdenoren, and Kathy Yuan, Learning and Complementarities in Speculative Attacks, *Review of Economic Studies*, 78(1), 263-292, January 2011.
- Pablo Kurlat and Laura Veldkamp, should we regulate financial information?, *Journal of Economic Theory*, July 2015, v.158, p.697-720.
- Stijn Van Nieuwerburgh and Laura Veldkamp, Information Acquisition and Under-Diversification, *Review of Economic Studies*, April 2010, v. 77(2), p.779-805.
- Stijn Van Nieuwerburgh and Laura Veldkamp, Information Immobility and the Home Bias Puzzle, *Journal of Finance*, June 2009, v. 64(3), p.1187-1215