



School of Economics
Academic Year 2015-16
Term 1

ECON714 - Macroeconomic Models with Financial Frictions

Instructor Name : Assistant Professor ZHANG Haiping
Email : hpzhang@smu.edu.sg
Tel : +65 68280665
Office : SOE 05-035

Course Objectives:

The objective of this course is to equip students with modeling tools and skills for understanding and conceptualizing the macroeconomic issues related to financial frictions. It covers the following topics: 1) understanding global imbalances, 2) bubbles and crises, 3) amplification and persistence of business cycles, 4) inequality, TFP, and growth, 5) financial intermediation and markets.

Academic Integrity:

All acts of academic dishonesty (including, but not limited to, plagiarism, cheating, fabrication, facilitation of acts of academic dishonesty by others, unauthorized possession of exam questions, or tampering with the academic work of other students) are serious offences. All work (whether oral or written) submitted for purposes of assessment must be the student's own work. Penalties for violation of the policy range from zero marks for the component assessment to expulsion, depending on the nature of the offense. When in doubt, students should consult the instructors of the course. Details on the SMU Code of Academic Integrity may be accessed at <http://www.smuscd.org/resources.html>.

Class Session:

- Monday, 12:00 -15:15, SOE Seminar Room 3-3

Consultation Hours:

- Monday, 15:30 – 17:00, Office 05-35

Assessment & Evaluation:

- Two referee reports (3-4 pages): 50%
- A research proposal (5-6 pages): 50%
- Total: 100%

RECOMMENDED TEXT AND READINGS (TENTATIVE):

(An asterisk (*) denotes required reading.)

0. Survey Articles

- *Brunnermeier, Markus, Thomas M. Eisenbach, and Yuliy Sannikov, 2012. “Macroeconomics with Financial Frictions: A Survey”, Advances in Economics and Econometrics, Tenth World Congress

of the Econometric Society, edited by D. Acemoglu, M. Arellano and E. Dekel, Cambridge University Press.

- Gourinchas, Pierre-Olivier and Helene Rey, 2014. "External Adjustment, Global Imbalances, Valuation Effects", Handbook of International Economics, Vol.4, Elsevier B.V.
- Korinek, Anton and Enrique G. Mendoza. "From Sudden Stop to Fisherian Deflation: Quantitative Theory and Policy", Annual Review of Economics, 299-332, 6, 2014.
- *Tirole, Jean, 2011. "Illiquidity and All Its Friends", Journal of Economic Literature, 49(2), 287-325.
- *Quadrini, Vincenzo, 2011. "Financial frictions in macroeconomic fluctuations", Economic Quarterly, 97(3), 209-254.
- Xiong, Wei, 2012. "Bubbles, Crises, and Heterogeneous Beliefs", forthcoming in Handbook for Systemic Risk, edited by Jean-Pierre Fouque and Joe Langsam.
- Brunnermeier, Markus K. and Martin Oehmke, 2012. "Bubbles, Financial Crises, and Systemic Risk", forthcoming in Handbook of the Economics of Finance, Vol2.
- Guvenen, Fatih, 2011. "Macroeconomics with Heterogeneity: A Practical Guide", Economic Quarterly, 97(3), 255-326.

1. Understanding Global Imbalances

- Angeletos, George-Marios and Panousi, Vasia, "Revisiting the supply side effects of government spending," Journal of Monetary Economics, 2009, 56(2), 137-153.
- *Angeletos, George-Marios and Panousi, Vasia, "Financial integration, entrepreneurial risk, and global dynamics," Journal of Economic Theory, 2011, 146, 863-896.
- *Antras, Pol and Ricardo Caballero, "Trade and Capital Flows: A Financial Frictions Perspective," Journal of Political Economy, 2009, 117 (4), 701-744.
- Antras, Pol and Ricardo Caballero, "On the Role of Financial Frictions and the Saving Rate during Trade Liberalizations," Journal of the European Economic Association, 2010, 8 (2-3), 442-455.
- Benhima, Kenza, "A reappraisal of the allocation puzzle through the portfolio approach," Journal of International Economics, 2013, 89 (2), 331-46.
- *Caballero, Ricardo, Emmanuel Farhi, and Pierre-Olivier Gourinchas, "An Equilibrium Model of "Global Imbalances" and Low Interest Rates," American Economic Review, 2008, 98 (1), 358-93.
- Gourinchas, Pierre-Olivier and Olivier Jeanne, "Capital Flows to Developing Countries: The Allocation Puzzle," Review of Economic Studies, 2013, 80 (4), 1484-1515.
- *Gourinchas, Pierre-Olivier and Helene Rey, "External Adjustment, Global Imbalances, Valuation Effects," Handbook of International Economics, vol 4, Elsevier, 2015.
- Kose, Ayhan, Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei, "Financial Globalization: A Reappraisal," IMF Staff Papers, 2009, 56 (1), 8-62.
- Martin, Alberto, "A model of collateral, investment, and adverse selection," Journal of Economic Theory, 2009, 144 (4), 1572-1588.
- Martin, Alberto and Filippo Taddei, "International capital flows and credit market imperfections: a tale of two frictions," Journal of International Economics, 2013, 89 (2), 41-52.
- *Matsuyama, Kiminori, "Financial Market Globalization, Symmetry-Breaking, and Endogenous Inequality of Nations," Econometrica, 2004, 72 (3), 853-884.
- Matsuyama, Kiminori, "Credit Market Imperfections and Patterns of International Trade and Capital Flows," Journal of the European Economic Association, 2005, 3 (2-3), 714-723.
- *Mendoza, Enrique G., Vincenzo Quadrini, and Jose-Victor Rios-Rull, "Financial Integration, Financial Deepness, and Global Imbalances," Journal of Political Economy, 2009, 117 (3), 371-416.
- Prasad, Eswar S., Raghuram Rajan, and Arvind Subramanian, "Patterns of International Capital Flows and their Implications for Economic Development," in "Proceedings of the 2006 Jackson Hole Symposium" Federal Reserve Bank of Kansas City 2006, 119-158.
- *von Hagen, Juergen and Haiping Zhang, "Financial Development, International Capital Flows, and Aggregate Output," Journal of Development Economics, 2014, 106, 66-77.

- Wang, Pengfei, Wen Yi, and Zhiwei Yu, “Two-Way Capital Flows and Global Imbalances – A Neoclassical Approach”, working paper, 2012.
- *Zhang, Haiping, “Minimum Investment Requirements, Financial Market Globalization, and Symmetry Breaking”, working paper, 2014.
- *Zhang, Haiping, “Trade and Financial Integration, Extensive Margin, and Income Divergence”, working paper, 2014a.

2. Bubbles and Crises

- Aoki, Kosuke, and Kalin Nikolov, 2015. “Bubbles, banks and financial stability.” *Journal of Monetary Economics*, 74, 33-51.
- *Martin, Alberto, and Jaume Ventura, 2012. “Economic Growth with Bubbles.” *American Economic Review*, 102(6), 3033-58.
- Martin, Alberto, and Jaume Ventura, 2011. “Theoretical Notes on Bubbles and the Current Crisis”, *IMF Economic Review*, 59(1), 6-40.
- *Farhi, Emmanuel and Jean Tirole, 2012. “Bubbly Liquidity”, *Review of Economic Studies*, 79(2), 678-706.
- Wang, Pengfei, and Yi Wen, 2012. “Speculative Bubbles and Financial Crises”, *American Economic Journal: Macroeconomics*, 4(3), 184-221.
- *Hirano, Tomohiro, Masaru Inaba, and Noriyuki Yanagawa, 2013. “Asset Bubbles and Bailouts”, working paper.
- Kocherlakota, N., 2009. “Bursting Bubbles: Consequences and Cures,” mimeo, University of Minnesota.
- Tirole, Jean, “Asset Bubbles and Overlapping Generations,” *Econometrica*, 1985, 53 (6), 1499-1528.
- Woodford, Michael, “Public Debt as Private Liquidity,” *American Economic Review*, 1990, 80 (2), 382-88.

3. Amplification and Persistence of Business Cycles

- Azariadis, Costas, Leo Kaas, and Yi Wen, 2015. “Self-Fulfilling Credit Cycles”, memo.
- Benhabib, Jess and Pengfei Wang, “Financial constraints, endogenous markups, and self-fulfilling equilibria,” *Journal of Monetary Economics*, 2013, 60 (7), 789-805.
- Bernanke, Ben S. and Mark L. Gertler, 1989. “Agency Costs, Net Worth, and Business Fluctuations”, *American Economic Review*, 79(1), 14-31.
- *Brunnermeier, Markus K. and Yuliy Sannikov, “A Macroeconomic Model with a Financial Sector,” *American Economic Review*, 2014, 104 (2), 379-421.
- Carlstrom, Charles and Timothy S. Fuerst, 1997. “Agency Costs, Net Worth, and Business Fluctuations: A Computable General Equilibrium Analysis”. *American Economic Review*, 87(5), 893-910.
- *Kiyotaki, Nobuhiro and John Moore, 1997. “Credit Cycles”, *Journal of Political Economy*, 105(2), 211-48.
- Liu, Zheng and Pengfei Wang, “Credit Constraints and Self-Fulfilling Business Cycles,” *American Economic Journal: Macroeconomics*, 2014, 6 (1), 32-69.
- Matsuyama, Kiminori, “The good, the bad, and the ugly: an inquiry into the causes and nature of credit cycles”, *Theoretical Economics*, 2013, 8(3), 623–651.
- von Hagen, Juergen and Haiping Zhang, “Financial frictions, capital reallocation, and aggregate fluctuations,” *Journal of Economic Dynamics and Control*, 2008, 32 (3), 978-99.

4. Inequality, TFP, and Growth

- Aghion, Philippe, George-Marios Angeletos, Abhijit Banerjee, and Kalina Manova, “Volatility and growth: Credit constraints and the composition of investment,” *Journal of Monetary Economics*, 2010, 57 (3), 246-65.

- Aghion, Philippe, Peter Howitt, and David Arie Mayer-Foulkes, “The Effect of Financial Development on Convergence: Theory and Evidence,” *Quarterly Journal of Economics*, 2005, 120 (1), 173-222.
- Buera, Francisco J., Joseph Kaboski, and Yongseok Shin, “Finance and development: a tale of two sectors,” *American Economic Review*, 2011, 101 (5), 1964-2002.
- Buera, Francisco Javier and Yongseok Shin, “Financial Frictions and the Persistence of History: A Quantitative Exploration,” *Journal of Political Economy*, 2013, 121(2), 221-72.
- Hsieh, Chang-Tai and Pete Klenow, “Relative Prices and Relative Prosperity,” *American Economic Review*, 2007, 97 (3), 562-85.
- Hsieh, Chang-Tai and Pete Klenow, “Misallocation and Manufacturing TFP in China and India,” *Quarterly Journal of Economics*, 2009, 124 (4), 1403-48.
- Laeven, Luc, Ross Levine, and Stelios Michalopoulos, “Financial Innovation and Endogenous Growth”, working paper, 2013.
- Levine, Ross, “Finance and Growth: Theory and Evidence,” in Philippe Aghion and Steven Durlauf, eds., *Handbook of Economic Growth*, Elsevier, 2005, pp. 865-934.
- Midrigan, Virgiliu and Daniel Yi Xu, “Finance and Misallocation: Evidence from Plant-Level Data,” *American Economic Review*, 2014, 104 (2), 422-58.
- Moll, Benjamin, “Productivity Losses from Financial Frictions: Can Self-Financing Undo Capital Misallocation?” *American Economic Review*, 104(10): 3186-3221.
- Song, Zheng, Kjetil Storesletten, and Fabrizio Zilibotti, “Growing like China,” *American Economic Review*, 2011, 101(1), 196-233.

USEFUL LINKS:

[HTTP://SCHOLAR.PRINCETON.EDU/MARKUS/MACROMONEYFINANCE](http://scholar.princeton.edu/markus/macromoneyfinance)
[HTTP://INITIATIVE.PRINCETON.EDU/](http://initiative.princeton.edu/)

TENTATIVE SCHEDULE (SUBJECT TO CHANGES):

Week	Topics	Papers
1	Mismatch and (In)complete Markets Introduction to Global Imbalances	Frictionless vs. frictional models Gournichas and Ray (2014)
2	Financial Development and Capital Flows Economic Integration and Income Convergence	von Hagen and Zhang (2014) Zhang (2014)
3	Idiosyncratic Income Risks and Global Imbalances	Angeletos and Panousi (2011) Wang, Wen, Zhu (2012)
4	Bubbles and Crises Business Cycles: the Local Analysis	Hirano et. al. (2013) Kiyotaki and Moore (1997)
5	Business Cycles: the Global Analysis	Brunnermeier and Sanikov (2014)
6	Inequality, TFP, and Growth	Moll (2014) Buera, Kaboski, and Shin (2011, 2013)