

Topics in Macroeconomics VII: Topics in Macrofinance II

2020-21 Academic Year
Master of Research in Economics, Finance and Management

1. Description of the subject

- Topics in Macroeconomics VII
 - Total credits: 3 ECTS
 - Type of subject: Optative
 - Department of Economics and Business
 - Teaching team: Andrea Caggese and Alberto Martin
- Code: 32101
Workload: 75 hours
Term: 3rd

2. Teaching guide

🌀 Introduction

Over the last few decades, financial markets have become increasingly important to understand the evolution of the real economy. Asset price booms and busts, for instance, have become frequent, with important implications for individual firms and for the economy as a whole. This course will cover two specific areas of research related to these broad issues. The first part will review recent developments in the theory of credit booms and rational bubbles, with an application to the ongoing debate regarding global asset shortages. The second part of the course will focus on the interaction between financial constraints and firm dynamics, and their implications for the aggregate economy.

It is recommended (although not mandatory), that students who register for this course also register for Topics in Macroeconomics VI.

🌀 Contents

First part:

- Credit booms,
- Rational Bubbles
- Global Asset Scarcity

Second part:

- **Finance and Firm Dynamics:**
 - Introduction: Stylized facts on firm dynamics.
 - Theoretical tools: Basic firm dynamics models with and without financial frictions.
 - Empirical tools:
 - Frictions, misallocation of resources, and aggregate implications: identification and estimation.
 - Empirical testing of firm level financial frictions.
- **Finance, firm dynamics and the business cycle: theory and applications**
 - Empirical testing of credit cycle theories.
 - Quantitative credit cycle models with heterogenous firms.

🌀 Assessment and Grading System

The grade for the course will be based on a final exam.

🌀 Requirements for enrollment

The course will draw heavily on theoretical models. Successful completion of the course thus requires familiarity with (i.e, the ability to understand and solve) micro- and macroeconomic models . It is intended for MRes students, but MSc in Economics and Finance and other Barcelona GSE Master students can also sign up subject to instructor approval. In case there are space constraints, priority will be given to MRes students, MSc in Economics and Finance students, and other Barcelona GSE students, in that order.

3. Programme of activities (preliminary)

The following outline sketches the topics covered in the course. Required readings are marked by a star. The reading list is subject to changes before and during the class.

Credit booms and busts

* Asriyan, V., Laeven, L. and A. Martin, "Collateral Booms and Information Depletion", CREI Working Paper 2020.

Boissay, F., Collard, F., and F. Smets, "Booms and Banking Crises", *Journal of Political Economy*, 2016.

Farboodi, M. and Kondor, P., "Rational Sentiments and Economic Cycles", LSE Working Paper, 2020.

Fishman, M., Parker, J. and L. Straub, "A Dynamic Theory of Lending Standards", Harvard Working Paper (2020).

* Gorton, G. and Ordoñez, G., "Collateral crises," *American Economic Review*, 2014.

Gorton, G. and Ordoñez, G., "Good booms, bad booms," *Journal of the European Economic Association*, 2019.

Rational bubbles

* Asriyan, V., Fornaro, L., Martin, A., and J. Ventura, "Monetary Policy for a Bubbly World", forthcoming, *Review of Economic Studies*.

Caballero, R. and A. Krishnamurthy, "Bubbles and Capital Flow Volatility: Causes and Risk Management", *Journal of Monetary Economics* 2006.

Gali, J., "Monetary Policy and Rational Asset Price Bubbles", *American Economic Review*, 2014.

* Martin, A. and J. Ventura, "Economic Growth with Bubbles", *American Economic Review*, 2012.

* Tirole, J., "Asset Bubbles and Overlapping Generations." *Econometrica*, 1985.

Asset shortages

* Caballero, R., E. Farhi, and P. Gourinchas, "An equilibrium model of 'global imbalances' and low interest rates," *American Economic Review*, 2008.

* Farhi, E. and J. Tirole (2011), "Bubbly Liquidity", *Review of Economic Studies* 79, 678-706.

* Holmstrom, B. and J. Tirole (1998), "Private and Public Supply of Liquidity", *Journal of Political Economy*.

Misallocation

- * John Asker, Allan Collard-Wexler, and Jan De Loecker, Dynamic Inputs and Resource (Mis)Allocation, *Journal of Political Economy* 2014 122:5, 1013-1063

- *Mark Bilal, Peter J. Klenow, Cian Ruane, Misallocation or Mismeasurement?, Stanford University, December 4, 2018
- Lucia Foster, Cheryl Grin, John C. Haltiwanger, Zoltan Wolf, 2018, Innovation, Productivity Dispersion and Productivity Growth. NBER Working Paper 24420
- *Hsieh, C. and P.J. Klenow (2009). "Misallocation and Manufacturing TFP in China and India", *The Quarterly Journal of Economics* 124, 1403-1448.
- *Joel David, Venky Venkateswaran, 2019, The Sources of Capital Misallocation, *American Economic Review*, forthcoming.
- *Haltiwanger, John, Robert Kulick and Chad Syverson. 2018. "Misallocation Measures: The Distortion that Ate the Residual." NBER Working Paper No. 24199
- John Haltiwanger, Ron S. Jarmin, Robert Kulick, Javier Miranda, High Growth Young Firms: Contribution to Job, Output, and Productivity Growth, Chapter in NBER book *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges* (2017), John Haltiwanger, Erik Hurst, Javier Miranda, and Antoinette Schoar, editors (p. 11 - 62).
- *Restuccia, Diego, and Richard Rogerson. 2017. "The Causes and Costs of Misallocation." *Journal of Economic Perspectives*, 31 (3): 151-74.
- Syverson, C. 2004, "Product Substitutability and Productivity Dispersion." *Review of Economics and Statistics*, 86(2): 534-50.
- Syverson, C., 2011, What Determines Productivity?, *Journal of Economic Literature* 2011, 49:2, 326-365

Financial frictions

- *Almeida, H., Campello, M., Laranjeira, B., Weisbenner, S. 2012. Corporate Debt Maturity and the Real Effects of the 2007 Credit Crisis. *Critical Finance Review*, 1: 3-58
- Santiago Bazdresch, R. Jay Kahn, Toni M. Whited, Estimating and Testing Dynamic Corporate Finance Models, *The Review of Financial Studies*, Volume 31, Issue 1, January 2018, Pages 322-361
- Cabral, Luís M B, and José Mata. 2003. "On the Evolution of the Firm Size Distribution: Facts and Theory." *American Economic Review*, 93(4): 1075-1090.
- *Chen Lian, Yueran Ma, 2018, Anatomy of Corporate Borrowing Constraints, working paper.
- Dell'Ariccia, Giovanni, Detragiache, Enrica, and Rajan, Raghuram, 2008, "The real effect of banking crises," *Journal of Financial Intermediation*, Elsevier, vol. 17(1), pages 89-112.
- *Farre-Mensa, Joan, and Alexander Ljungqvist. "Do Measures of Financial Constraints Measure Financial Constraints?" *Review of Financial Studies* 29, no. 2 (February 2016): 271-308.
- Hadlock, Charles J., and Joshua R. Pierce, 2010, New evidence on measuring financial constraints: Moving beyond the KZ Index, *Review of Financial Studies* 23, 1909-1940.
- Kaplan, Steven N., and Luigi Zingales, 1997, Do investment-cash flow sensitivities provide useful measures of financing constraints?, *Quarterly Journal of Economics* 115, 707-712.

- Simon Gilchrist, Jae Sim and Egon Zakrajsek, 2013, "Misallocation and Financial Frictions: Some Direct Evidence from the Dispersion in Borrowing Costs", *Review of Economic Dynamics*, January 2013.
- *Nikolov, Boris and Schmid, Lukas and Steri, Roberto, The Sources of Financing Constraints (November 30, 2018). Swiss Finance Institute Research Paper No. 18-74. Available at SSRN: <https://ssrn.com/abstract=3293849> or <http://dx.doi.org/10.2139/ssrn.3293849>

Firm dynamics models

- *Hopenhayn, Hugo A, 1992. "Entry, Exit, and Firm Dynamics in Long Run Equilibrium," *Econometrica*, Econometric Society, vol. 60(5), pages 1127-1150, September.
- *Buera, Francisco J., Joseph P. Kaboski, and Yongseok Shin. 2011. "Finance and Development: A Tale of Two Sectors." *American Economic Review*, 101(5).
- Buera, Francisco J. and Benjamin Moll. 2015. "Aggregate Implications of a Credit Crunch: The Importance of Heterogeneity." *American Economic Journal: Macroeconomics*, 7(3): 1-42.
- *Caggese, A., and V. Cuñat, 2013, "Financing Constraints, Firm Dynamics, Export Decisions, and Aggregate Productivity", *Review of Economic Dynamics*, Special Issue on Misallocation and Productivity, edited by Diego Restuccia & Richard Rogerson, vol. 16(1), pages 177-193, January 2013.
- *Caggese, A., 2019, "Financing Constraints, Radical versus Incremental Innovation, and Aggregate productivity", *American Economic Journal: Macroeconomics*.
- G. Clementi, H. Hopenhayn, A Theory of Financing Constraints and Firm Dynamics, *Quarterly Journal of Economics*, Volume 121, Issue 1, February 2006, pages 229-265
- Midrigan, Virgiliu, and Daniel Yi Xu. 2014. "Finance and Misallocation: Evidence from Plant-Level Data." *American Economic Review*, 104(2): 422-58
- Moll, Benjamin. 2014. "Productivity Losses from Financial Frictions: Can Self-Financing Undo Capital Misallocation?" *American Economic Review*, 104(10): 3186-3221.
- Oberfield, Ezra, 2013. Productivity and misallocation during a crisis: Evidence from the Chilean crisis of 1982. *Review of Economic Dynamics* 16 (1), 100–119
- Hsieh, Chang-Tai and Klenow, Peter J., 2014, The Life Cycle of Plants in India and Mexico, *Quarterly Journal of Economics*, Vol. 129, Issue 3
- Acemoglu, D., U. Akcigit, N. Bloom, and W. R. Kerr (2013). Innovation, Reallocation and Growth. National Bureau of Economic Research WP 18993.
- Daron Acemoglu, Ufuk Akcigit, Murat Alp Celik, 2014, Young, Restless and Creative: Openness to Disruption and Creative Innovations, NBER Working Paper No. 19894
- Ufuk Akcigit, William R. Kerr, 2010, Growth Through Heterogeneous Innovations, NBER Working Paper No. 16443
- *Albert, C., and A. Caggese, 2019, Cyclical Fluctuations, Financial Shocks, and the Entry of Fast Growing Entrepreneurial Startups, working paper.

- Caggese, A., Metzger, D., and V. Cunat, 2016, "Firing the Wrong Workers: Financing Constraints and Labor Misallocation", forthcoming, *Journal of Financial Economics*.
- Caggese, A., 2012, "Entrepreneurial Risk, Investment and Innovation", *Journal of Financial Economics*, n.106, November 2012, 287-307.
- Klette, T. J. and S. Kortum (2004). *Innovating Firms and Aggregate Innovation*. *Journal of Political Economy*, 112, 986-1018.
- Daniel Garcia-Macia, Chang-Tai Hsieh, Peter J. Klenow, 2019, *How Destructive is Innovation?*, working paper.
- Pugsley, Benjamin, Petr Sedlacek, and Vincent Sterk, "The Nature of Firm Growth," CEPR Discussion Papers 12670, C.E.P.R. Discussion Papers January 2018.
- Sedlacek, P., and V. Sterk, 2016, *The Growth Potential of Startups over the Business Cycle*, *American Economic Review*.

Finance, firm dynamics and the business cycle: theory and applications

- *Chodorow-Reich, G. (2014). *The Employment Effects of Credit Market Disruptions: Firm-level Evidence from the 2008–9 Financial Crisis*. *The Quarterly Journal of Economics*, 129(1), 1-59.
- *Arellano, C., Yan, Bai, and Patrick Kehoe, 2019, *Financial Frictions and Fluctuations in Volatility*, *Journal of Political Economy*, Forthcoming.
- Bernanke, B. S., M. Gertler, and S. Gilchrist, "The Financial Accelerators in a Quantitative Business Cycle Framework," in John B. Taylor and Michael Woodford, eds., *Handbook of Macroeconomics*, 1999, pp.1341-1393.
- Bloom, Nicholas. 2009. "The Impact of Uncertainty Shocks." *Econometrica* 77(3): 623-686.
- Bloom, Nicholas, Max Floetotto, Itay Saporta-Eksten, Nir Jaimovich, and Stephen Terry, 2011, *Really Uncertain Business Cycles*. "Stanford University Working Paper.
- Braun, M, and B. Larrain, 2005, *Finance and the Business Cycle: International, Inter-Industry Evidence*, *The Journal of Finance*, Vol. 60, No. 3, pp. 1097-1128.
- Caggese, A., and A. Perez, 2016, "Reallocation of Intangible Capital and Secular Stagnation", Working paper.
- Caggese, A. and Perez, A., 2016, "The Interaction Between Household and Firm Dynamics and the Amplification of Financial Shocks", working paper, Barcelona Graduate school of Economics
- Caggese, A., 2012, *How important are capital markets imperfections in determining firm decisions and aggregate fluctuations?* CREI Opuscles, http://www.crei.cat/files/filesOpuscles/39/121127131924_ENG_33_ANG3.pdf
- Woon Gyu Choi, David Cook, *Fire sales and the financial accelerator*, *Journal of Monetary Economics*, Volume 59, Issue 4, May 2012, Pages 336-351
- Christiano, Lawrence J., Roberto Motto, and Massimo Rostagno. 2014. "Risk Shocks." *American Economic Review*, 104(1): 27-65.

- Juan-Carlos Cordoba & Marla Ripoll, 2004. "Credit Cycles Redux," *International Economic Review*, vol. 45(4), pages 1011-1046, November.
- Jermann, Urban J. and Quadrini, Vincenzo, *Macroeconomic Effects of Financial Shocks*, *American Economic Review*: Vol. 102 No. 1 (February 2012)
- Aubhik Khan, Julia K. Thomas, 2013, "Credit Shocks and Aggregate Fluctuations in an Economy with Production Heterogeneity," *Journal of Political Economy*, 121, no. 6 (2013): 1055-1107.
- Gauti B. Eggertsson and Paul Krugman, *Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach*, *The Quarterly Journal of Economics* (2012) 127(3): 1469-1513
- Gilchrist, S., Sim, J., and Zakrajsek, E., (2014). "Uncertainty, Financial Frictions and Investment Dynamics," Working Paper.
- *Mark Gertler, Nobuhiro Kiyotaki, 2015, *Banking, Liquidity and Bank Runs in an Infinite-Horizon Economy*, *American Economic Review*.
- Zhigu He and Arvind Krishnamurthy, *A Model of Capital and Crises*, *Review of Economic Studies* (2012) 79(2): 735-777
- *Kiyotaki, N., and J. Moore. "Credit Cycles." *Journal of Political Economy* 105 (1997): 211-248.
- Kiminori Matsuyama, *Credit Traps and Credit Cycles*, *American Economic Review*, 97, March 2007, 503-516
- Mian, A., and Sufi, A. (2014). "What Explains the 2007-2009 Drop in Employment?" *Econometrica*, Vol. 82, No. 6, November, 2014, 2197-2223.
- Simon Gilchrist & Egon Zakrajsek, 2012. "Credit Spreads and Business Cycle Fluctuations," *American Economic Review*, *American Economic Association*, vol. 102(4), pages 1692-1720, June.
- Xavier Giroud, Holger M. Mueller, 2015, *Firm Leverage and Unemployment during the Great Recession*, , NBER Working Paper No. 2107.
- Veronica Guerrieri, Guido Lorenzoni, *Credit Crises, Precautionary Savings, and the Liquidity Trap*, NBER Working Paper No. 17583