Macroeconomics of Financial Markets

Professor: Guillermo Ordoñez

December 11 – 13

Venue: Auditorium, Central Bank of Chile

Tuesday, December 11

13:45 – 14:00	*Registration*
14:00 – 15:30	Foundations of Financial Contracts and Intermediation (I)
15:30 – 15:45	*Coffee Break*
15:45 – 17:15	Foundations of Financial Contracts and Intermediation (II)

Wednesday, December 12

09:30 – 11:00	Securitization and Shadow Banking
11:00 – 11:15	*Coffee Break*
11:15 – 12:45	Bubbles and Panics Financial Markets and Business Cycles

Thursday, December 13

09:30 – 11:00	Financial Crises
11:00 – 11:15	*Coffee Break*
11:15 – 12:45	Regulation of Financial Markets

Macroeconomics of Financial Markets

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Course Description

The recent global financial crisis, which started in 2007 and put developed countries on the brinks of a collapse, exposed some of the most important open questions in macroeconomics. What is the role of financial markets and financial intermediaries for the aggregate economy? Do financial markets spur growth and development? Do they trigger and spread painful crises? Which policies can improve the positive effects of financial markets in terms of long-run growth, and reduce their negative ones in terms of short-time fluctuations?

Given the renewed interest on these questions and the clear importance of coming up with answers, this course focuses on studying the role of financial markets, and in particular financial intermediaries, in macroeconomics.

To start constructing a framework to answer these questions we will proceed in three steps. First, we will delve into the micro-foundations of financial markets. Without understanding what is the role of financial intermediation, why financial markets are so different than other markets and what is so special about financial organizations, there is little hope that we can understand seriously their role in macroeconomics. Second, we will review the most recent models that introduce financial markets in macroeconomic environments to accommodate for financial crises explicitly and we will discuss the empirical regularities surrounding those crises. Finally, we will explore some of the implications of crises for the design of financial regulation.

Structure of the Course

The course will be divided into three parts.

<u>First Part: Micro Foundations (4 hours):</u> We will cover theoretical explanations (micro foundations) of why financial intermediation exists and what makes financial institutions and financial markets so special. We will also study the growth and decline of the so-called "shadow banking", critical in the understanding of the recent financial crisis and the new financial landscape.

<u>Second Part: Macro Implications (2 hours)</u>: We will review **theoretically** the role of financial markets for economic development and economic volatility. We will pay particular attention to models in which financial markets magnify volatility and to models in which financial markets generate volatility.

<u>Third Part: Quantification and Policy (3 hours)</u>: We will review **empirically** the determinants of financial crises and how our models can potentially accommodate them. We will also discuss implications for regulation and policy.

Reading List

An * indicates papers that I intend to discuss in lectures, no * indicates papers that I may not discuss in lectures but you should definitely read.

First Part: Micro Foundations of Financial Contracts and Intermediation.

1: Introduction. Agreeing on vocabulary and some basic definitions about financial markets. Facts about financial markets. Modigliani Miller as a benchmark.

* Gorton G. and A. Winton, (2002) "Financial Intermediation", *Handbook of the Economics of Finance*. Eds: George Constantinides, Milt Harris and Rene Stulz. North Holland.

* Modigliani, F. and M. Miller (1958) "The Cost of Capital, Corporation Finance and the Theory of Investment", *American Economic Review*, 48, 261-297.

2: Standard Debt Contracts. Costly State Verification.

* Townsend, R. (1979), "Optimal Contracts and Competitive Markets with Costly State Verification", *Journal of Economic Theory*, 21, 265-293.

Gale D. and M. Hellwig (1985), "Incentive Compatible Debt Contracts: The One-Period Problem". *Review of Economic Studies*, 52, 647-663.

3: Financial Intermediaries as Information Producers.

* Diamond D.(1984), "Financial Intermediation and Delegated Monitoring", *Review of Economic Studies*, 51, 393-414.

* Boyd J. and E. Prescott (1986), "Financial Intermediary Coalitions", *Journal of Economic Theory*, 38, 211-232.

* Stiglitz J. and A. Weiss (1981), "Credit Rationing in Markets with Imperfect Information", *American Economic Review*, 71, 393-410.

Leland H. and D. Pyle (1977) "Informational Asymmetries, Financial Structure, and Financial Intermediation", *Journal of Finance*, 31, 371-387.

Bester, H. (1985) "Screening vs. Rationing in Credit Markets with Imperfect Information", *American Economic Review*, 71, 393-410.

4: Financial Intermediaries as Liquidity Providers. Bank Runs.

* Diamond D. and P. Dybvig (1983), "Bank Runs, Deposit Insurance and Liquidity", *Journal of Political Economy*, 91, 401-419.

Jacklin, C and S. Bhattacharya (1988) "Distinguishing Panics and Information-based Bank Runs: Welfare and Policy Implications", *Journal of Political Economy*, 96, 568-592.

Holmstrom H. and J. Tirole, (1998), "Private and Public Supply of Liquidity", *Journal of Political Economy*, 106, 1-40.

Diamond D. and R. Rajan (2001), "Liquidity Risk, Liquidity Creation, and Financial Fragility: A Theory of Banking", *Journal of Political Economy*, 94, 691-719.

5: Financial Intermediaries as Optimal Opaque Institutions.

* Dang, TV, G. Gorton, B. Holmstrom and G. Ordonez (2017), "Banks as Secret Keepers", *American Economic Review*. 107, 1005-1029.

6: Shadow Banking

* Gorton, G. and A. Metrick (2010), "Regulating the Shadow Banking", *Brookings Papers on Economic Activity*. Fall 2010.

Gennaioli, N, A,. Shleifer and R. Vishny (2013). "A Model of Shadow Banking" *Journal of Finance*, 68, 1331-1363.

Ordonez, G. (2017), "Sustainable Shadow Banking". *AEJ: Macroeconomics*. Forthcoming

Ordonez G. (2016) "Confidence Banking and Strategic Default", *UPenn Working Paper*.

Farhi, E and J. Tirole (2017). "Shadow Banking and the Four Pillars of Traditional Financial Intermediation." *Harvard Working Paper*.

Second Part: Macro Implications of Financial Intermediation.

1: Financial Intermediation and the Magnification of Fluctuations.

* Kiyotaki N. and J. Moore (1997), "Credit Cycles" *Journal of Political Economy*, 105, 211-248.

* Bernanke B. and M. Gertler (1989) "Agency Costs, Net Worth and Business Fluctuations", *American Economic Review*, 79, 14-31.

* Carlstrom C. and T. Fuerst (1997) "Agency Costs, Net Worth and Business Fluctuations: A Computable General Equilibrium Analysis", *American Economic Review*, 87, 893-910.

Ordonez, G (2013) "The Asymmetric Effects of Financial Frictions", *Journal of Political Economy*, 121, 844-895.

2: Financial Intermediation and the Creation of Fluctuations.

* Gorton G. and G. Ordonez (2014) "Collateral Crises", *American Economic Review*, 104, 343-378.

Holmström, B. (2015) "Understanding the Role of Debt in the Financial System, BIS working paper, no. 479.

Brancati, E. and M. Macchiavelli (2015) "The Role of Dispersed Information Uncertainty in Pricing Default: Evidence from the Great Depression", *FEDS Working Paper No. 2015-079*.

Cerra, Valerie and Sweta Chaman Saxena (2008), "Growth Dynamics: The Myth of Economic Recovery," AER 98, 439-457.

Third Part: Data and Policy.

1: Empirical Evidence and Quantitative Models of the Role of Financial Intermediation on Growth and Crises.

* Gorton G. and G. Ordonez (2018) "Good Booms, Bad Booms", *JEEA Forthcoming*.

* Herrera, H., Ordonez, G. and C. Trebesch (2018) "Political Booms, Financial Crises", *JPE Forthcoming*.

* Ordonez, G. and Piguillem, F. (2017). "Retirement in the Shadow (Banking)". *UPenn Working Paper.*

Chousakos, K, Gorton, G and G. Ordonez (2017) "Aggregate Information Dynamics." *UPenn Working Paper*.

Ranciere, R, Tornell, A. and F. Westermann (2008) "Systemic Crises and Growth", *Quarterly Journal of Economics, 123, 359-406*.

Schularick, M. and A. Taylor (2012) "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008". American Economic Review 102, 1029-1061.

Demirguc-Kunt A. and E. Detragiache (1998). "Financial Liberalization and Financial Fragility". *World Bank WP 1917.*

Levine, R. (1997). "Financial Development and Economic Growth: Views and Agenda." *Journal of Economic Literature.*

Galindo, A., A. Micco and G. Ordonez (2002). "Financial Liberalization and Growth: Does it pay to join the party?" *Economia*. 3. 231-261.

7: Regulation and Monetary Policy

* Jeanne, O. and A. Korinek (2016). "Macroprudential Regulation Versus Mopping Up After the Crash." JHU Working Paper.

Gorton, G. and G. Ordonez (2017). "Fighting Crises with Secrecy" NBER Working Paper 22787.

Erol S. and G. Ordonez. (2017) "Network Reactions to Banking Regulations", *Journal of Monetary Economics*, 89, 51-67.

Nosal J. and G. Ordonez (2013) "Uncertainty as Commitment", *Journal of Monetary Economics*, 80, 124-140.

Gorton, G and A. Metrick (2010 "Regulating the Shadow Banking System." Brookings Papers on Economic Activity, Fall.