



**EGADE**<sup>®</sup>  
**Business School**  
TECNOLÓGICO DE MONTERREY

**Course and code: EO -4009 Macroeconomía abierta**

**(Seminar on Microeconomics and  
Microeconometrics of Banking)**

Professors:

**Dr. Alberto Ortiz Bolaños**

**Dr. Carlos Cañón**

<b>Course name:</b>	<b>Seminar on Microeconomics and Microeconometrics of Banking</b>
<b>Place and time:</b>	EGADE Business School, <u>CAMPUS CIUDAD DE MÉXICO</u> Room: 4005 Schedule: Saturday 8:00 to 11:30 hours. Sessions: from January 18 <sup>th</sup> to May 10 <sup>th</sup> , 2014.
<b>Profesor:</b>	Alberto Ortiz Bolaños and Carlos Cañón
<b>E-mails:</b>	<a href="mailto:aortizb@itesm.mx">aortizb@itesm.mx</a> and <a href="mailto:ccanon@banxico.org.mx">ccanon@banxico.org.mx</a> please indicate "Micro Bancaria" in "Subject" or "Asunto".
<b>Contact outside class:</b>	Ortiz: 5061-6635 (office) and 55-2109-7658 (cell). Cañón: 5237-2000 ext. 7623 (office) and 55-2296-6012 (cell).

### Antecedentes académicos y profesionales de los Profesores:

**Alberto Ortiz Bolaños** es Doctor en Economía por la Universidad de Boston. Actualmente es Profesor-Investigador en la Escuela de Graduados en Administración y Dirección de Empresas (EGADE) Business School del Tecnológico de Monterrey en la Ciudad de México y Gerente de Investigación Económica del Centro de Estudios Monetarios Latinoamericanos.

Entre las áreas de investigación del Dr. Ortiz están: (1) la relación entre políticas macroeconómicas y desempeño económico en economías emergentes, cuyo objetivo es identificar políticas que coadyuven al desarrollo de estos países, (2) la relación entre economía y finanzas con el fin de mejorar nuestro entendimiento del efecto de las condiciones financieras en la actividad económica, y (3) el estudio de las prácticas gerenciales en México con el propósito de entender sus determinantes y evaluar su impacto en la generación de valor para los accionistas, los consumidores y los empleados.

El Dr. Ortiz ha impartido cursos sobre: Teoría de la Información y Fallas de Mercado en los Mercados Financieros, Finanzas Internacionales, Teoría Macroeconómica, Moneda, Banca y Sistema Financiero, Desarrollo Económico y Matemáticas para la Economía en Boston University, Harvard University y Oberlin College.

El Dr. Ortiz ha realizado estancias en los departamentos de investigación del Banco de la Reserva Federal de Cleveland, el Banco Central del Perú, el Banco Central de Qatar, y del Banco Interamericano de Desarrollo. Además, el Dr. Ortiz elaboró análisis económico para BNP-Paribas, Barclays Ltd., BANCRECER, IXE, Prudential-Apollo y Aeroméxico.

**Carlos Cañón** es Doctor en Economía por la Escuela de Economía de Toulouse. Actualmente es investigador en la Dirección de Estabilidad Financiera del Banco de México.

El Dr. Cañón tiene un área de investigación empírica y otra teórica. En el primer grupo actualmente estudia (1) métodos de estimación estructurales de formación de redes, y cuyo objetivo es estimar las preferencias de los bancos comerciales hacia características de los demás bancos comerciales que participan en el mercado de repos y en el mercado interbancario, y (2) métodos de diferencias en diferencias no lineales que permiten la identificación de distribuciones conjuntas de variables de desempeño. En el segundo grupo estudia (1) el

impacto de políticas macroprudenciales en la probabilidad de corrida de los bancos comerciales, y en el contrato óptimo ofrecido a los depositantes, utilizando modelos de global games, y (2) cómo la utilización óptima de herramientas de precios y de calidad por parte de plataformas, e.g. Amazon o Bancos Centrales, permite inducir ciertos patrones de matching dentro de sus usuarios.

El Dr. Cañón ha impartido cursos sobre: Econometría teórica, Econometría aplicada, Microeconomía intermedia y avanzada, y Economía Matemática en Toulouse School of Economics, Duke University, y Universidad del Rosario.

El Dr. Cañón ha realizado estancia en los departamentos de investigación del Deutsche Bundesbank y la Universidad del Rosario, también constantemente participa en congresos internacionales de economía, siendo el último de ellos LACEA-LAMES 2013.

## Course Description:

This seminar will examine the theoretical and empirical frameworks used by economists to understand many financial phenomena such as credit rationing, bank runs and panics, and solvency problems. Along with our study of the theory and evidence of market failures in financial markets, we will review different methodologies useful to confront theory with data. During the semester you will write a research paper integrating theory, methodology and evidence to advance our understanding of the functioning of financial markets.

## Course Objective:

The main objective of the seminar is to provide you with the tools to carry out research at the frontier of the microeconomics of banking.

## Grading:

Your grade will be determined as follows:

- Research Proposal (30%) of which:
  - Topic selection (2.5%) 4<sup>th</sup> session (February 8<sup>th</sup>)
  - Outline (2.5%) 8<sup>th</sup> session (March 8<sup>th</sup>)
  - First draft of proposal for comments 13<sup>th</sup> session (April 19<sup>th</sup>)
  - Final proposal (25%) 16<sup>th</sup> session (May 10<sup>th</sup>)
- Class Participation (25%) of which:
  - General participation (10%)
  - Presentation of related theoretical literature (5%) 6<sup>th</sup> session (February 22<sup>nd</sup>)
  - Presentation of related empirical literature (5%) 10<sup>th</sup> session (March 22<sup>nd</sup>)
  - Presentation of your research proposal (5%) 16<sup>th</sup> session (May 10<sup>th</sup>)
- Reading controls (25%)
- Mid-term exam (20%) second session after finishing topic 3 (March 15<sup>th</sup>)

## Research Proposal:

One of the main requirements of this seminar is a research proposal on a topic of your choice related to the topics covered in class. The proposal will be due on the 16<sup>th</sup> session when proposals will be presented and discussed in class. An initial topic proposal will be due on the 4<sup>th</sup> session, a more detailed outline on the 8<sup>th</sup> session and a first draft for comments on the 13<sup>th</sup> session (see specific dates above).

Two useful references that could help you to organize your proposals and later on your papers are:

Don Fullerton's general guidelines for writing research papers available at:

<http://www.business.uiuc.edu/dfullert/writing-general.pdf>

John Cochrane's writing tips available at:

[http://faculty.chicagosb.edu/john.cochrane/research/Papers/phd\\_paper\\_writing.pdf](http://faculty.chicagosb.edu/john.cochrane/research/Papers/phd_paper_writing.pdf)

## **Class participation:**

Class meetings will be devoted to discussion of readings and your research progress. Everyone is expected to have read the assigned material before each class and to be prepared to participate in the discussion. During the semester you will prepare two 20 minutes presentations where you will cover the theoretical and empirical literature related to your research topic, these presentations will be useful in the preparation of your own proposal. The first presentation with a focus on the theoretical literature will take place on the 6<sup>th</sup> session; the second presentation with a focus on the empirical literature will be on the 10<sup>th</sup> session.

## **Honor code:**

As a student of Tecnológico de Monterrey, you undertake to always be guided by respect, academic honesty, responsibility and commitment to the community ([http://sitios.itesm.mx/va/somos/pdf/c\\_etica\\_f\\_ingles.pdf](http://sitios.itesm.mx/va/somos/pdf/c_etica_f_ingles.pdf))

## **Required textbooks:**

The texts below summarize part of the theoretical and empirical literature on financial intermediaries.

(FR) Xavier Freixas and Jean-Charles Rochet, 2008. Microeconomics of Banking. 2<sup>nd</sup> edition, MIT Press. (ISBN-13:978-0-262-06270-1).

(DKO) Hans Degryse, Moshe Kim and Steven Ongena, 2009. Microeconometrics of Banking: Methods, Applications, and Results. Oxford University Press. (ISBN-13:978-0-19-534047-1).

(Trl) Jean Tirole (2006). The Theory of Corporate Finance. Princeton University Press (ISBN: 9780691125565).

In addition we will discuss journal articles and other relevant readings associated with your research topics.

## Course syllabus (by session):

Session	Topics	Readings and Econometric Methodology
1: Jan 18 <sup>th</sup>	<b>1. Introduction to theory and empirics of banking.</b>	FR, chapter 1.* DKO, chapter 1.*
Theory 2: Jan 25 <sup>th</sup> and 3: Feb 1 <sup>st</sup>  and  Empirics 4: Feb 8 <sup>th</sup>	<b>2. Asymmetric information and the role of financial intermediaries</b>	FR, chapter 2.* DKO, chapter 2.* Diamond, D. and P. Dybvig. 1983. "Bank runs, deposit insurance, and liquidity." <i>The Journal of Political Economy</i> 91(3): 401-419.*  <u>Methodology:</u> Event Study, Bootstrapping
Theory 5: Feb 15 <sup>th</sup> and 6 ½: Feb 22 <sup>nd</sup>  and  Empirics 6 ½ and 7: Mar 1 <sup>st</sup>	<b>3. The industrial organization approach to banking.</b>	FR, chapter 3.* DKO, chapter 3.* Trl, chapter 13.2, 13.3.*  Allen, F., and D. Gale 2004. Competition and financial stability. <i>Journal of Money, Credit and Banking</i> 36 (3): 453-480.  Arquié, A. 2013. Fire sales, pecuniary externality and inefficient banking, Mimeo Paris School of Economics.  Berger, A. N., A. Demircuc-Kunt, R. Levine, and J. G. Haubrich. 2004. Bank concentration and competition: An evolution in the making. <i>Journal of Money, Credit and Banking</i> 36 (3): 433-451.  Berger, A. N. and G. Udell. 2006. A more complete conceptual framework for SME finance. <i>Journal of Banking and Finance</i> 30 (11): 2945-2966.  Jullien, B. 2005. Two-sided markets and electronic intermediaries. <i>CESifo Economic Studies</i> , 51: 235-262.  Lemmen Meyer, A. 2013. Pricing mechanisms in peer-to-peer Online Credit Markets. Mimeo Stanford.  Leung, M. 2013. Two-step estimation of network formation models with incomplete information. Mimeo Stanford.  Sheng, S. 2012. Identification and estimation of network formation games. Mimeo USC.  Weyl, G. 2010. A price theory of multi-sided platforms. <i>American Economic Review</i> 100 (4): 1642-1672.  <u>Methodology:</u> Traditional and New Empirical IO

Session	Topics	Readings and Econometric Methodology
<p>Theory 8:Mar 8<sup>th</sup> 9:Mar15<sup>th</sup></p> <p>and</p> <p>Empirics 10:Mar22<sup>nd</sup></p>	<p><b>4. Optimal contracting</b></p>	<p>FR, chapter 4.*</p> <p>DKO, chapter 4.*</p> <p>Townsend, R. 1979. "Optimal contracts and competitive markets with costly state verification." <i>Journal of Economic Theory</i> 21(2): 265-293.</p> <p>Ljungqvist, L. and T. Sargent. 2012. <i>Recursive Macroeconomic Theory</i>. 3<sup>rd</sup> edition, MIT Press. Chapters 19 and 20.*</p> <p><u>Methodology</u>: Duration analysis, Tobit and Count Models, Nested Multinomial Logit, Heteroskedastic Regression</p>
<p>won't be covered</p>	<p><b>5. Equilibrium in the credit market</b></p>	<p>FR, chapter 5.</p> <p>DKO, chapter 5.</p> <p>Bester, H. 1985. "Screening vs rationing in credit markets with imperfect information." <i>American Economic Review</i> 75(4): 850 - 855.</p> <p>Bester, H., and M. Hellwig. 1987. "Moral hazard and equilibrium credit rationing." In G. Bamberg and K. Spremann, eds., <i>Agency theory, information and incentives</i>, Heidelberg: Springer.</p> <p>Stiglitz, J. and A. Weiss. 1981. "Credit Rationing in Markets with Imperfect Information." <i>American Economic Review</i> 71(3): 393-410.</p> <p>S. Williamson. 1987. "Costly monitoring, loan contracts, and equilibrium credit rationing." <i>Quarterly Journal of Economics</i> 102(1): 135-145.</p>
<p>11: Apr 5<sup>th</sup> 12: Apr 12<sup>th</sup></p>	<p><b>6. The macroeconomic consequences of financial imperfections</b></p>	<p>FR, chapter 6.</p> <p>DKO, chapter 6.</p> <p>Bernanke, B. and M. Gertler. 1989. "Agency cost, net worth and business fluctuations." <i>American Economic Review</i> 79(1): 14-31.*</p> <p>Holmström, B., and J. Tirole 1997. "Financial intermediation, loanable funds, and the real sector." <i>Quarterly Journal of Economics</i> 112(3): 663-691.*</p> <p>Kiyotaki, N. and J. Moore. 1997. "Credit Cycles." <i>The Journal of Political Economy</i> 105(2): 211-248.*</p> <p>Matsuyama, K. 2007. "Aggregate Implications of Credit Market Imperfections." In D. Acemoglu, K. Rogoff, and M. Woodford, eds., <i>NBER Macroeconomics Annual</i> 22.</p> <p>Fuerst, T. et al 2013 "Estimating Credit Contract Indexation." CEMLA Working paper No. 10.*</p> <p><u>Methodology</u>: Growth Regression, IVs, Interaction Variables</p>

Session	Topics	Readings and Econometric Methodology
<p>Theory 13: Apr 19<sup>th</sup> and 14 ½: Apr 26<sup>th</sup>  and  Empirics 14 ½ and 15: May 3<sup>rd</sup></p>	<p><b>7. Individual bank runs, systemic risk, and government interventions</b></p>	<p>FR, chapter 7.*</p> <p>DKO, chapter 7.*</p> <p>TrI, 16.5 – 16.6.*</p> <p>Adrian, T., P. Colla, and H. Shin. 2012. Which financial frictions? Parsing the evidence from the financial crisis of 2007-9. Mimeo Princeton.</p> <p>Acharya, V. , D. Gromb and T. Yorulmazer. 2011. Imperfect competition in the interbank market for liquidity as a rationale for central banking. <i>INSEAD WP No. 2011/41</i>.</p> <p>Armantier, O., E. Ghysels, A. Sarkar, and J. Shrader. 2011. Stigma in financial markets: Evidence from liquidity auctions and discount window borrowing during the crisis. Staff Report FED of NY.</p> <p>Cañon, C. and P. Margaretic. 2013. Correlated bank runs, interbank markets and reserve requirements. Mimeo Banco de México.</p> <p>Cañon, C. 2013. Assessing government intervention during the financial crisis: The case of Mexican Sofomes and Sofoles. Mimeo Banco de México.</p> <p>Georg, C-P. 2013. The effect of interbank network structure on Contagion and Common Shocks. <i>Journal of Banking and Finance</i> 37 (7).</p> <p>Goldstein, I. and A. Pauzner. 2005. Demand deposit contracts and the probability of bank runs. <i>Journal of Finance</i> 60 (3): 1296-1327.*</p> <p>Farhi, E. and J. Tirole. 2012. Collective moral hazard, maturity mismatch, and systemic bailouts. <i>American Economic Review</i> 102 (1): 60-93.</p> <p>Philippon, T. and V. Skreta. 2012. Optimal interventions in markets with adverse selection.</p> <p>Tirole, J. 2012. Overcoming adverse selection: How public intervention can restore market functioning, 102 (1) : 29-59.*</p> <p>Wang, C. 2012. Bailouts and bank runs: Theory and evidence from TARP. <i>Mimeo</i>.</p> <p><u>Methodology</u>: IVs, Difference-In-Difference, Binary Choice Models</p>

Readings with an asterisk (\*) denote required readings, the others are recommended readings.

Red contents will be covered by Alberto Ortiz and green contents will be covered by Carlos Cañon.



## Other useful readings to find research topics:

Anginer, D. and J. Warburton. 2013. The end of market discipline? Investor expectations of implicit state guarantees. Mimeo.

Bennet, R., L. Guntay and H. Unal. 2013. Inside debt, bank default and performance during the crisis. Mimeo.

Berger, A., L. Black, C. Bouwman, and J. Dlugoz. 2013. The federal reserve's discount window and TAF programs: "Pushing on a String"? Mimeo.

Berger, A. and R. Roman. 2013. Did TARP banks get competitive advantage? Mimeo.

Berrospeide, J. and R. Meisenzahl. 2013. The real effects of credit line drawdowns. Mimeo.

Brunnermeier, M. 2009. "Deciphering the Liquidity and Credit Crunch 2007-2008." *Journal of Economic Perspectives* 23(1): 77-100.

Brunnermeier, M., and L. Pedersen. 2009. "Market Liquidity and Funding Liquidity." *Review of Financial Studies* 22(6) 2201-2238.

Campello, M., E. Giambona, J. Graham, and C. Harvey. 2010. Liquidity management and corporate investment during a financial crisis. *NBER WP 16309*.

Carlstrom, C., T. Fuerst, and M. Paustian. 2009. "Optimal Monetary Policy in a Model with Agency Costs." Manuscript Federal Reserve Bank of Cleveland.

Chakraborty, I., I. Goldstein and A. MacKinlay, 2013. Do asset price bubbles have negative real effects? Mimeo.

Chwiero, J. 2013. Creating policy stigmas in financial governance: The IMF and capital controls. Mimeo LSE.

Cuñat, V. and D. Cvijanovic. 2013. How did US banks react to capital losses induced by real estate prices? Mimeo.

Curdia, V., and M. Woodford. 2009. "Credit Spreads and Monetary Policy." Manuscript Columbia University.

Ennis, H. and J. A. Weinberg. 2009. A model of stigma in the Fed funds market. Universidad Carlos III de Madrid Working Paper 59.

Fostel, A., and J. Geanakoplos. 2008. "Leverage Cycles and the Anxious Economy." *American Economic Review* 98(4): 1211-1244.

Gong, D. and J. Ligthart. 2013. Does corporate income taxation affect securitization? Evidence from OECD banks. Mimeo.

Gorton, G., and P. He. 2009. "Bank Credit Cycles." *Review of Economic Studies* forthcoming.

Guerrieri, V., and G. Lorenzoni. 2009. "Liquidity and Trading Dynamics." *Econometrica* forthcoming.

Hommel, C., M. Van der Leij, and D. in't Veld. 2013. The formation of a core-periphery network in over-the-counter markets. Mimeo University of Amsterdam.

Houson, J., J. Lee and F. Suntheim 2013. Social networks in the global banking sector. Mimeo.

Ignatowski, M. and J. Korte. 2013. Wishful thinking or effective threat? Tightening bank resolution regimes and bank risk-taking. Mimeo.

Isoré, M. 2013. A search model of bank default. Mimeo.

Jermann, U., and V. Quadrini. 2009. "Macroeconomic Effects of Financial Shocks." Manuscript University of Southern California.

King, M., N. Massoud and K. Song. 2013. How does bank trading affect performance? An investigation before and after the crisis. Mimeo.

Kisin, R. and A. Manela. 2013. The shadow cost of bank capital requirements. Mimeo.

Kiyotaki, N., and J. Moore. 2008. "Liquidity Business Cycles and Monetary Policy." Manuscript Princeton University.

Korinek, A. and J. Kreamer. 2013. The redistributive effects of financial deregulation. Mimeo.

Li, Z. and K. Ma. 2013. Self-fulfilling fire-sales, Bank Runs and Contagion: Implications for bank capital and regulatory transparency. Mimeo.

Liu, Z., P. Wang, and T. Zha. 2009. "Asset Prices, Credit Constraints, and Macroeconomic Fluctuations." *Econometrica* forthcoming.

Lorenzoni, G. 2008. "Inefficient Credit Booms." *Review of Economic Studies* 75(3): 809-833.

Mele, A. 2011. A structural model of segregation in social networks. Mimeo John Hopkins Carey Business School.

Srivastav, A., S. Armitage and J. Hagendorff. 2013. Better safe than sorry? CEO inside debt and risk-taking in bank acquisitions. Mimeo.

Schandlbauer, A. 2013. How do financial institutions react to corporate tax increases? Mimeo.

Schepens, G. 2013. Taxes and bank capital structure. Mimeo.

Shleifer, A., and R. Vishny. 2009. "Unstable Banking." Manuscript Harvard University.