

Course Title

Course title – Intitulé du cours	Topics in applied industrial organization
Level / Semester – Niveau / semestre	M2
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Chuqing Jin
Other teacher(s) – Autre(s) enseignant(s)	
Lecture Hours – Volume Horaire CM	30
TA Hours – Volume horaire TD	
TP Hours – Volume horaire TP	
Course Language – Langue du cours	English
TA and/or TP Language – Langue des TD et/ou TP	English

Teaching staff contacts:

Chuqing Jin: chuqing.jin@tse-fr.eu;

Office number: T688;

Office hour: Tuesday 14:00 – 15:00 (Zoom or in office); If this doesn't work for you, please feel free to reach out to schedule a one-on-one meeting.

Zoom link:

<https://ut-capitole-fr.zoom.us/j/97817143114?pwd=N2VoS1lDcHZBbVNnTW5nNGEwWVVmZz09>

Course Objectives:

Topics

- Overview (0.5 class)
- Retail funding market: deposits, mutual funds (1.5 classes)
- Retail credit market: mortgages, credit cards, loans, shadow banks (2 classes)
- Agency issues and financial intermediation: mutual fund managers, financial advisors, security analysts (1 class)
- Wholesale and secondary markets: government bond, interbank lending (1 class)
- Market microstructure: stock exchanges, high-frequency trading, dark pools (1 class)
- Merger and acquisition: common ownership, venture capital (1 class)
- Digital Currency (1 class)
- Monetary policy and financial crisis (1 class)

These topics are analysed from both a theoretical and an empirical perspective. Emphasis is given to recent empirical methods for the analysis of policies in these markets. The goal is to 1) develop a baseline understanding of the financial markets and the policies in these markets, and 2) to be able to apply models from the literature to understand the financial markets and interpret their results.

Practical information about the sessions:

- This class will alternate between a “lecture style” and a “discussion style”. Each session is divided in to 2 halves with a 15 – 20-minute break in the middle. Typically for each session, I will present a few papers in lecture format in the first half. In the second half, a student will present a paper on the topic, and then we will discuss the paper. You are expected to come to class having read the paper each week. We will wrap up each session with a policy discussion.
- Laptops or tablets are accepted in the class.

- I expect students to collaborate on assignments, such as discussing the problem sets, and discussing papers together for referee report or presentation. However, I expect each assignment to represent substantial independent work by the student.

Grading system:

There will be two “problem sets” based on the readings. They will be computer and data intensive. Make sure you have access to the relevant computer programs, such as Matlab, R, Python, Julia, SAS, Stata, or Gauss (or C/C++ if you are so inclined).

In addition, there will be one “referee report” assignments. A referee report is a 3-page critical summary of a paper relevant for this class. You are free to choose one of the papers in the references below, or other papers. Note if you choose one of the papers that will likely be covered in class (marked with * or Δ), you must turn it in before the paper is discussed in class. You must obtain my approval of your choice of paper for the referee report by the end of the third week of class.

Each student will do one 30min class presentation of one assigned paper. The first presentation will be on Jan. 24th 2024 (the third class). I will randomly draw the sequence of the presentations in the first week. You can exchange slots with each other (multi-way exchanges are also allowed) and let me know in the first week.

Final grades are weighted as follows:

- Problem sets (2) : 40%
- Referee report (1) : 25%
- Class participation : 10%
- Presentation : 25%

All assignments are due on Fridays at 12pm (noon) Central European Time. The due dates for each assignment are listed under **important dates** below.

Important dates:

- Presentation dates will be announced after the first class
- Jan. 24th 2024: First student presentation
- Jan. 26th 2024: Submit choice of paper for referee report
- Feb. 2nd 2024: First problem set due
- Mar. 15th 2024: Referee report due
- Mar. 29th 2024: Second problem set due

References:

The papers that will likely be covered in detail in lectures are marked with an asterisk (*). The papers for student presentation are marked with a triangle (Δ). This syllabus will be updated online as the course progresses with additional papers and (*/ Δ)’ed listings likely to be added.

Overview

Clark, R., Houde, J.F. and Kastl, J., 2021. The industrial organization of financial markets. In Handbook of Industrial Organization (Vol. 5, No. 1, pp. 427-520). Elsevier.

Thakor, A.V. and Boot, A.W. eds., 2008. Handbook of financial intermediation and banking. Elsevier.

Athey, S. and Haile, P.A., 2007. Nonparametric approaches to auctions. Handbook of econometrics, 6, pp.3847-3965.

Menkveld, A.J., 2016. The economics of high-frequency trading: Taking stock. *Annual Review of Financial Economics*, 8, pp.1-24.

Jones, C.M., 2018. Understanding the market for US equity market data
<https://www.sec.gov/comments/4-729/4729-4545881-176154.pdf>

Backus, M., Conlon, C. and Sinkinson, M., 2019. The common ownership hypothesis: Theory and evidence. *Economic Studies at Brookings*, pp.1980-2017.

Vives, X., 2016. *Competition and stability in banking: The role of regulation and competition policy*. Princeton University Press.

Chapman, J., Chiu, J., Davoodalhosseini, M., Jiang, J.H., Rivadeneyra, F. and Zhu, Y., 2023. Central Bank Digital Currencies and Banking: Literature Review and New Questions.
<https://www.bankofcanada.ca/wp-content/uploads/2023/02/sdp2023-4.pdf>

Retail funding market: deposits, mutual funds

*Hortaçsu, A. and Syverson, C., 2004. Product differentiation, search costs, and competition in the mutual fund industry: A case study of S&P 500 index funds. *The Quarterly journal of economics*, 119(2), pp.403-456.

Honka, E., Hortaçsu, A. and Vitorino, M.A., 2017. Advertising, consumer awareness, and choice: Evidence from the US banking industry. *The RAND Journal of Economics*, 48(3), pp.611-646.

Roussanov, N., Ruan, H. and Wei, Y., 2021. Marketing mutual funds. *The Review of Financial Studies*, 34(6), pp.3045-3094.

*Dick, A.A., 2008. Demand estimation and consumer welfare in the banking industry. *Journal of Banking & Finance*, 32(8), pp.1661-1676.

Gowrisankaran, G., Krainer, J., 2011. Entry and pricing in a differentiated products industry: evidence from the ATM market. *The Rand Journal of Economics* 42 (1), 1–22.

*Cohen, A.M. and Mazzeo, M.J., 2007. Market structure and competition among retail depository institutions. *The Review of Economics and Statistics*, 89(1), pp.60-74.

Aguirregabiria, V., Clark, R., Wang, H., 2016. Diversification of geographic risk in retail bank networks: evidence from bank expansion after the Riegle-Neal Act. *The Rand Journal of Economics* 47 (3), 529–572.

Luco, F., 2019. Switching costs and competition in retirement investment. *American Economic Journal: Microeconomics* 11 (2), 26–54.

Egan, M., Hortaçsu, A., Matvos, G., 2017. Deposit competition and financial fragility: evidence from the US banking sector. *The American Economic Review* 107 (1), 169–216.

Retail credit market: mortgages, credit cards, loans, shadow banks

Einav, L., Jenkins, M. and Levin, J., 2012. Contract pricing in consumer credit markets. *Econometrica*, 80(4), pp.1387-1432.

*Crawford, G.S., Pavanini, N. and Schivardi, F., 2018. Asymmetric information and imperfect competition in lending markets. *American Economic Review*, 108(7), pp.1659-1701.

Karlan, D. and Zinman, J., 2009. Observing unobservables: Identifying information asymmetries with a consumer credit field experiment. *Econometrica*, 77(6), pp.1993-2008.

*Nelson, S., 2023. Private information and price regulation in the US credit card market. *Conditionally accepted Econometrica*

Agarwal, S., Chomsisengphet, S., Mahoney, N., Stroebel, J., 2015. Regulating consumer financial products: evidence from credit cards. *The Quarterly Journal of Economics*, 111–164.

*Buchak, G., Matvos, G., Piskorski, T., Seru, A., 2018. Fintech, regulatory arbitrage, and the rise of shadow banks. *Journal of Financial Economics* 130 (3), 453–483.

Δ Jiang, E.X., 2023. Financing competitors: Shadow banks' funding and mortgage market competition. *The Review of Financial Studies*, 36(10), pp.3861-3905.

Δ Kawai, K., Onishi, K. and Uetake, K., 2022. Signaling in online credit markets. *Journal of Political Economy*, 130(6), pp.1585-1629.

Agency issues and financial intermediation: mutual fund managers, credit rating agencies, financial advisors, security analysts

*Chevalier, J. and Ellison, G., 1997. Risk taking by mutual funds as a response to incentives. *Journal of political economy*, 105(6), pp.1167-1200.

Chevalier, J. and Ellison, G., 1999. Career concerns of mutual fund managers. *The Quarterly Journal of Economics*, 114(2), pp.389-432.

*Chu, C.S. and Rysman, M., 2019. Competition and strategic incentives in the market for credit ratings: Empirics of the financial crisis of 2007. *American Economic Review*, 109(10), pp.3514-3555.

Δ Egan, M., 2019. Brokers versus retail investors: Conflicting interests and dominated products. *The Journal of Finance*, 74(3), pp.1217-1260.

Bhattacharya, V., Illanes, G. and Padi, M., 2019. Fiduciary duty and the market for financial advice (No. w25861). National Bureau of Economic Research.

*Robles-Garcia, C., 2019. Competition and incentives in mortgage markets: The role of brokers. Unpublished working paper.

Jin, C., 2022. Does Competition Improve Information Quality: Evidence from the Security Analyst Market.

Wholesale market: government bond, interbank lending

Kastl, J., 2012. On the properties of equilibria in private value divisible good auctions with constrained bidding. *Journal of Mathematical Economics* 48 (6), 339–352.

*Hortaçsu, A., Kastl, J., Zhang, A., 2018. Bid shading and bidder surplus in U.S. treasury auction system. *The American Economic Review* 108 (1).

Garrett, D.G., Ordin, A., Roberts, J., Serrato, J.C.S., 2023. Tax advantages and imperfect competition in auctions for municipal bonds. *Review of Economic Studies*, 90(2): 815-851.

Brancaccio, G. and Kang, K., 2022. Search frictions and product design in the municipal bond market (No. w30775). National Bureau of Economic Research.

Gavazza, A., 2016. An empirical equilibrium model of a decentralized asset market. *Econometrica*, 84(5), pp.1755-1798.

Δ Allen, J. and Wittwer, M., 2023. Centralizing over-the-counter markets?. *Journal of Political Economy*, 131(12), pp.000-000.

Market microstructure: stock exchanges, high-frequency trading, dark pools

*Budish, E., Cramton, P. and Shim, J., 2015. The high-frequency trading arms race: Frequent batch auctions as a market design response. *The Quarterly Journal of Economics*, 130(4), pp.1547-1621.

*Budish, E., Lee, R., Shim, J., 2023. A Theory of Stock Exchange Competition and Innovation: Will the Market Fix the Market? Forthcoming, *Journal of Political Economy*

Pagnotta, E.S. and Philippon, T., 2018. Competing on speed. *Econometrica*, 86(3), pp.1067-1115.

Δ Menkveld, A.J., Yueshen, B.Z. and Zhu, H., 2017. Shades of darkness: A pecking order of trading venues. *Journal of Financial Economics*, 124(3), pp.503-534.

Digital currency

*Li, J., 2023. Predicting the demand for central bank digital currency: A structural analysis with survey data. *Journal of Monetary Economics*, 134, pp.73-85.

Whited, T.M., Wu, Y. and Xiao, K., 2022. Will Central Bank Digital Currency Disintermediate Banks?. Available at SSRN 4112644.

Benetton, M. and Compiani, G., 2020. Investors' beliefs and asset prices: A structural model of cryptocurrency demand. University of Chicago, Becker Friedman Institute for Economics Working Paper, (2020-107).

Δ Benetton, M., Compiani, G. and Morse, A., 2023. When cryptomining comes to town: High electricity-use spillovers to the local economy (No. w31312). National Bureau of Economic Research.

Biais, B., Bisiere, C., Bouvard, M. and Casamatta, C., 2019. The blockchain folk theorem. *The Review of Financial Studies*, 32(5), pp.1662-1715.

Wang, L., 2023. Payment network competition. Stanford University Working Paper. Available at: https://luluywang.github.io/PaperRepository/payment_jmp.pdf.

Market power: common ownership, merger and acquisition

(Guest lecture) Eisfeld, L., 2022. Entry and acquisitions in software markets. Working Paper, Toulouse School of Economics.

Δ Cunningham, C., Ederer, F. and Ma, S., 2021. Killer acquisitions. *Journal of Political Economy*, 129(3), pp.649-702.

Antón, M., Ederer, F., Giné, M. and Schmalz, M., 2023. Common ownership, competition, and top management incentives. *Journal of Political Economy*, 131(5), pp.1294-1355.

*Azar, J., Schmalz, M.C. and Tecu, I., 2018. Anticompetitive effects of common ownership. *The Journal of Finance*, 73(4), pp.1513-1565.

Backus, M., Conlon, C. and Sinkinson, M., 2021. Common ownership and competition in the ready-to-eat cereal industry (No. w28350). National Bureau of Economic Research

*Backus, M., Conlon, C. and Sinkinson, M., 2021. Common ownership in America: 1980–2017. *American Economic Journal: Microeconomics*, 13(3), pp.273-308.

Policy and crisis

Δ Wang, Y., Whited, T.M., Wu, Y. and Xiao, K., 2022. Bank market power and monetary policy transmission: Evidence from a structural estimation. *The Journal of Finance*, 77(4), pp.2093-2141.

Corbae, D. and D'Erasmus, P., 2021. Capital buffers in a quantitative model of banking industry dynamics. *Econometrica*, 89(6), pp.2975-3023.

*Coen, J. and Coen, P., 2022. A structural model of liquidity in over-the-counter markets.

Benetton, M., 2021. Leverage regulation and market structure: A structural model of the UK mortgage market. *The Journal of Finance*, 76(6), pp.2997-3053.

*Allen, J., Clark, R., Hickman, B. and Richert, E., 2023. Resolving failed banks: Uncertainty, multiple bidding & auction design. *Review of Economic Studies*, p.rdad062.

Allen, J., Clark, R., Richert, E. and Hickman, B., 2023. Banking Fragility and Resolution Costs. Available at SSRN 4434353.