

FIRN Corporate Finance Ph.D. Course

The Interaction of Finance and Industrial Organization

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Course Outline

The primary topics of the course concern the interaction between the firm's real decisions and its financial decisions in different equilibrium industrial organization settings. This course involves a fair amount of microeconomics and industrial organization in addition to finance. Both theoretical articles and empirical articles will be covered and discussed. We will emphasize the link between theoretical and empirical research in both industrial organization and corporate finance.

IMPT: Please carefully read and outline the first sets of starred articles before our 1st class.

Please also read this survey article before class: Frésard, Laurent, and Gordon M. Phillips. "[Product Markets, Competition and Corporate Finance: A Review and Directions for Future Research](#)." Forthcoming 2023, Handbook of Corporate Finance, [Available on SSRN \(click here\)](#).

There will be an assignment due (written article review) for our 2nd class.

All students will also do a computational linguistics exercise using Python. This exercise will reproduce similarity scores using 10K for a subset of firms following Hoberg and Phillips, JPE, 2016.

We will primarily be using articles for the course. During the course we will cover in depth the * articles – approximately 6-8 articles per session – in each week we will thus cover about 12-14 articles. Please read these carefully in advance of the class. **You will also be responsible for turning in a 2-page write-ups on 1 of the articles each session, beginning with the 2nd session.** The write-up should not just summarize the article. It should do the following:

- Identify what the major contribution is,
- Identify the solution technique or econometric methodology used,
- Discuss in depth any potential limitations (modeling limitations or unrealistic assumptions or methodological problems) of the papers, and
- How could one extend the paper by identifying unanswered questions.

Each session will also have several students presenting beginning in session 2 as well. **The course grade will be based on these hand-in written “referee reports” (40%) (4 total write-ups), participation in class (with 2 presentations) total 40%, course exam which will consist of either an exam or each student presenting either their own existing paper or a new paper idea based on the class (20%).**

Our primary focus will be articles from journals.

There also will be a practical “hands on” step-by-step session using computational linguistics with Python that processes and analyzes the text from firm 10-Ks as was done in Hoberg and Phillips, JPE, 2016.

In addition, to supplement your microeconomics training, you may want to purchase the following book on Industrial Organization. It has very good presentations of basic industrial organization modeling. It is:

The Theory of Industrial Organization, Jean Tirole, MIT Press.

Also useful: *The Theory of Corporate Finance*, Jean Tirole, Princeton University Press

Class Schedule

Schedule	
Session	Topic
Session 1: Mon, Nov. 28, 9am-1pm	Introduction / Theory of firm Link to Slides
	Contracting Problems / Vertical Integration
Session 2: Tuesday, Nov. 29, 9am-1pm	Financing Decisions and Product market competition Link to Slides
Work on Computational Linguistics Exercise, finish by Saturday, December 3	Link to material: Computational Exercise using Python for Class
Session 4: Thursday, Dec 1, 9am-1pm	Mergers and Acquisitions Link to Slides
Session 5: Friday, Dec 2, 9am-1pm (morning)	Competition and Finance: New Developments Link to Slides

Class Reading Assignments

We will cover about 6-8 articles in depth for each session in depth and give an overview of some of the others. Please read these articles in advance of each class (* articles indicate the in depth articles, numbered articles indicate the articles presented or focused on in each class). Each section will have background material which gives some finance citations which do *not* consider the interaction of finance and industry product markets. These background materials are not distributed in the course but you should consult these citations to understand fully the more advanced articles.

In general, I have tried to organize articles within sections by development of "themes" in the literature. Thus, articles do **not** necessarily proceed chronologically within sections - but do in most cases proceed chronologically by class session.

*Overall review article- please read before class starts: Frésard, Laurent, and Gordon M. Phillips. "[Product Markets, Competition and Corporate Finance: A Review and Directions for Future Research](#)." Forthcoming 2023, Handbook of Corporate Finance, [Available on SSRN here](#).

Session 1: Theory of the Firm: From Perfect Markets to Contracting Problems and Information Problems

a. Transaction Costs and Agency Theories of the Firm

*1 Williamson, Oliver E., 1967, Hierarchical control and optimum firm size, *Journal of Political Economy*, 75: 123-138.

-----, 1971, The vertical integration of production: Market failure considerations, *American Economic Review*, 61, 112-123.

*2 -----, Oliver E., 1983, Transaction-Cost Economics: The Governance of Contractual Relations, *Journal of Law and Economics*, 233-261.

Also, "Transaction Cost Economics", *Handbook of Industrial Organization*, Chapter 3, Volume 1.

Jensen, M. and W. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, 1976, 3:305-360.

*3 Klein, Benjamin, Robert Crawford, and Armen A. Alchian, Vertical Integration, Appropriable Rents and the Competitive Contracting Process, *Journal of Law and Economics* 21, 1978, 297-326.

Grossman, Sanford and Oliver Hart, 1986, The costs and benefits of ownership: A theory of vertical and horizontal integration, *Journal of Political Economy* 94, 691-719.

Masten, Scott E., 1984, "[The Organization of Production: Evidence from the Aerospace Industry](#)," *Journal of Law and Economics*, 27, October 1984, pp. 403-417.

The following is a good summary of some of this area.

Holmstrom and Tirole, 1989, The Theory of the Firm, *Handbook of Industrial Organization*, Chapter 2. Volume 1.

Hart, Oliver and J. D. Moore, 1990, Property Rights and the Nature of the Firm, *Journal of Political Economy*, 98, 1119-58.

(read over!) Whinston, Michael, On the transaction cost determinants of vertical integration, *Journal of Law, Economics, and Organization*, 2003

Rajan, Rajharam, G. and Luigi Zingales, 1998, Power in a theory of the firm, *Quarterly Journal of Economics* 113, 387-432.

Harris, M. and Raviv, A. (1992), "Financial Contracting Theory", in J. Laffont (ed.) *Advances in Economic Theory*: Sixth World Congress, Vol. II

Finance Applications:

*4 Kaplan, Steven N. and Per Stromberg, 2003, Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contract, *Review of Economic Studies*.

*5 Allen, Jeff and Gordon Phillips, 2000, Corporate Equity Ownership, Strategic Relationships and Product Market Relationships, *Journal of Finance*. Paper available on SSRN (*more complete version*).

C. Edward Fee and Charles Hadlock, Shawn Thomas, "Corporate Equity Ownership and the Governance of Product Market Relationships", [*Journal of Finance*](#), 2006, vol. 61, issue 3, pages 1217-1251

Kale, Jayant and Husayn Shahrur, 2006, "Corporate capital structure and the characteristics of suppliers and customers" *JFE*.

*6 Laurent Fresard and Gerard Hoberg and Gordon Phillips. 2020. "Innovation Activities and Integration through Vertical Integration," *Review of Financial Studies*, 2020, 33(7) 2937-76.

*7 Katie Moon and Gordon Phillips, 2021, "Outsourcing Supply Contracts, Human Capital and Firm Capital Structure," *Management Science*, 2021, 67(1):363-87, <https://doi.org/10.1287/mnsc.2019.3443>.

Session 2: Financing Decisions, Capital Structure and Product Markets

You can choose to write up any 1 of the * articles – except for *1. The 2 Brander and Lewis articles are very related thus if writing them up cover both as 1 write up. I will select 2 students for presentations.

a. The Classics & Background

Miller, Merton H., 1988, "The Modigliani-Miller Propositions After Thirty Years," *Journal of Economic Perspectives*. 2:99-120. (with comments following by Joseph Stiglitz, Stephen Ross, Sudipto Bhattacharya, and Franco Modigliani.)

Myers, S., "The Capital Structure Puzzle," *Journal of Finance*. July, 1984, 39:575-592.

Myers, Stewart C., and Nicholas S. Majluf, 1984, Corporate financing and investment decisions when the firm has information that investors do not have, *Journal of Financial Economics* 13, 187-221

*1 (will review, no write-up on this one) Harris, Milton and Artur Raviv, 1991, "The Theory of Capital Structure," *Journal of Finance*. 46: 297-355.

Bresnahan, Timothy F., 1989, "Empirical studies of industries with market power," In Handbook of Industrial Organization, ed. R. Schmalensee and R. Willig, North-Holland, Amsterdam.

b. Financial Structure and Intra-Industry competition

*2 Brander, James A., and Tracy R. Lewis, 1986, "Oligopoly and financial structure," *American Economic Review*. 76, 956-970.

*+2----, (1988), "Bankruptcy costs and the theory of oligopoly," *Canadian Journal of Economics* 21(2), 221-243.

Maksimovic, Vojislav, 1988, "Capital structure in repeated oligopolies," *Rand Journal of Economics*. 19, 389-407.

*3 Bolton, Patrick and David S. Scharfstein, 1990, "A theory of predation based on agency problems in financial contracting," *American Economic Review*. 80, 93-106.

*4 Phillips, Gordon, 1995, "Increased Debt and Industry Product Markets: An Empirical Analysis," *Journal of Financial Economics*, 37, 189-238. [Download full PDF: Click Here.](#)

(just read) Phillips, Gordon, and Dan Kovenock, 1995, "Capital Structure and Product Market Rivalry: How Do We Reconcile Theory and Evidence?", with Dan Kovenock, *American Economic Review*, 1995, 85, 403-408. [Download full PDF: Click Here.](#)

*5 Kovenock, Dan and Phillips, Gordon, 1997, "Capital Structure and Product Market Rivalry: An Examination of Plant Closing and Investment Decisions," with Dan Kovenock, *Review of Financial Studies*, 1997, Volume 10:3. . [Download PDF file: Click Here](#)

Chevalier, Judith, 1995, "Do LBO Supermarkets Charge More? An Empirical Analysis of the Effects of LBOs on Supermarket Pricing," *Journal-of-Finance*; 50(4), September 1995, pages 1095-1112.

Campello, M., Capital Structure and Product Markets Interactions: Evidence from Business Cycles , *Journal of Financial Economics* 68 (3), 2003, pp. 353-378.

Campello, M., Debt Financing: Does it Boost or Hurt Performance in Product Markets? *Journal of Financial Economics*, 2006.

Chevalier, Judith, 1995, "Debt and product market competition: Local market entry, exit, and expansion decisions of supermarket chains." *American Economic Review*, 85, 415-35.

Khanna, Naveen and Sheri Tice, 2005, "Pricing, Exit, and Location Decisions of Firms: Evidence on the Role of Debt and Operating Efficiency", *Journal of Financial Economics*.

Maksimovic, Vojislav and Josef Zechner, 1991, "Debt, Agency Costs, and Industry Equilibrium," *Journal of Finance*, 46: 1619-1644

Maksimovic, Vojislav and Gordon Phillips 1998, "**Asset Efficiency and the Reallocation Decisions of Bankrupt Firms.**" *Journal of Finance*, October, 1998, 53, 1495-1532.

*6 **Mackay, Peter and Gordon Phillips, 2005, "How Does Industry Affect Firm Financial Structure?"** *Review of Financial Studies*.

Stomper, Alexander, Christine Zulehner, and Pegaret Pichler, "Why leverage affects pricing", RFS 2008. Available at:
<http://homepage.univie.ac.at/Christine.Zulehner/pricing.pdf>

David Matsa, (2010 JF, [Capital Structure as a Strategic Variable: Evidence from Collective Bargaining.](#)).

Fresard, Laurent, 2010, Financial Strength and Product Market Behavior: The Real Effects of Corporate Cash Holdings, *The Journal of Finance*, 2012.

Boutin, Xavier et. al., 2014, "Deep-Pocket Effect of Internal Capital Markets"
Journal of Financial Economics

Bernstein, Shai. 2015. Does going public affect innovation? *Journal of Finance* ,70(4): 1365--1403.

*7 Phillips, Gordon and Giorgio Sertsios, 2017, "[Financing and New Product Decisions of Private and Publicly Traded Firms](#),"
Review of Financial Studies.

*8 Bai, John and Daniel Carvalho, and Gordon Phillips, 2018, "The Impact of Bank Credit on Labor Reallocation and Aggregate Industry Productivity," *Journal of Finance*.

Background articles:

Bresnahan, Timothy, 1982, "The oligopoly solution concept is identified,"
Economic Letters. 10, 87-92.

Fudenburg, Drew and Jean Tirole, 1986, "A signal jamming' theory of predation"
Rand Journal of Economics. 17, 366-376.

Poitevin, Michel, 1989, "Financial signaling and the "deep-pocket" argument,"
Rand Journal of Economics. 20, 26-40.

Rotemberg, Julio J. and David S. Sharfstein, 1990, "Shareholder Value Maximization and Product Market Competition," *RFS*, 3:367-91.

(review) Maksimovic, V., 1995, Financial Structure and Product Market Competition, in Jarrow, R., Maksimovic V. and W. Ziemba, (eds.), *Handbook of Finance*, North-Holland.

Mergers and Acquisitions (Session 3)

You can choose to write up any 1 of the * articles. Will select 1-2 students for presentations.

(Read over for background) Shleifer, A., and R. W. Vishny, 1992, Liquidation values and debt capacity: A market equilibrium approach, *Journal of Finance* 47, 1343-1366.

Schlingemann, F. P., R. M. Stulz, and R. A. Walkling, 2002, Divestitures and the liquidity of the market for corporate assets, *Journal of Financial Economics* 64, 117-144.

Phillips, Gordon M., and Ortiz-Molina, H. (2014) "[Real Asset Illiquidity and the Cost of Capital](#)," *Journal of Financial and Quantitative Analysis*, 49 (1), 1-32.

*1 Maksimovic, Vojislav and Gordon Phillips, 2001, "The Market for Corporate Assets: Who Engages in Mergers and Asset Sales and Are There Gains?" *Journal of Finance* December, 2001, Vol. 56, 2019-2065. Reprinted in "Corporate Restructuring" volume in *The International Library of Critical Writings in Financial Economics*, ed. J. McConnell and D. Denis. Also reprinted in *Mergers and Corporate Governance*, ed: J. Harold Mulherin.

*2 Rhodes-Kropf, Matthew, David Robinson, "The Market for Mergers and the Boundary of the Firm." <http://www.nber.org/~confer/2004/si2004/cf/rhodeskropf.pdf>, (early version) *Journal of Finance*. 2008.

*3 Maksimovic, Phillips and Yang, "[Public and Private Merger Waves](#)," [Download paper], *Journal of Finance*, 2013, Vol. 68, (5), 2177-2217. Best paper award Financial Management Association.

*4 Phillips, Gordon and Alexei Zhdanov, 2013, "[R&D and the Incentives from Merger and Acquisition Activity](#)," [Download paper], *Review of Financial Studies*, 2013, 26 (1) 34-78. [Internet Appendix](#).

*5 Fresard, Lauren, Uli Hege and Gordon Phillips 2017, "Extending Industry Specialization through Cross-Border Acquisitions," *Review of Financial Studies*, 2017.

** Inefficient M&A (read over not covered in class)

Shleifer, Andrei and Robert Vishny, "Stock Market Driven Acquisitions". JFE, Paper available on SSRN. *Journal of Financial Economics*.

Sara Moeller, Rene Stulz and Frederick Schlingemann, "Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave," *Journal of Finance*, 2005 757-782.

Rhodes-Kropf, Matthew, and S. Viswanathan, Market Value and Merger Waves," 2004. [Journal of Finance](#)

Dong, Ming, David Hirshleifer, Scott Richardson, and Siew Hong Teoh, 2003, "[Does Investor Misvaluation Drive the Takeover Market?](#)" [Journal of Finance](#), 2006.

Rhodes-Kropf, Matthew, David Robinson, and S. Vishwanthan, 2005, "[Merger Waves and Merger Activity: The Empirical Evidence.](#)" [Journal of Financial Economics](#)

Competition and Finance: Recent Developments (Session 4):

You can choose to write up any 1 of the * articles articles.

Broad studies:

- * Grullon, G., Y. Larkin, and R. Michaely, 2019. "Are US industries becoming more concentrated?" [Review of Finance](#) 23 (4): 697–743.
- * Covarrubias, M., G. Gutierrez, and T. Philippon, 2020. "From Good to Bad Concentration? US Industries over the past 30 years." [NBER Macroeconomics Annual](#) 34 (1): 1–46.
- * Hoberg, G., and G. M. Phillips. 2022, "Scope, scale and concentration: The 21st century firm." Working paper, Available on SSRN.
- * Acikalin, U., Caskurlu, T., Hoberg, G., and G. M. Phillips. 2022, "Intellectual Property Protection Lost and Competition: An Examination Using Machine Learning," Working paper, Available on SSRN.

3 Industry studies:

- Kamepalli, S. K., R. Rajan, and L. Zingales, 2020. "Kill zone." Technical Report, National Bureau of Economic Research.
- * Cunningham, C., F. Ederer, and S. Ma., 2021. "Killer acquisitions." [Journal of Political Economy](#) 129 (3): 649–702
- * E. Giambona, A. Kumar, and G. Phillips, 2022, "[Hedging and Competition](#)," will send you the latest version.