

Corporate Finance and Financial Intermediation

Fall 2019

Instructors:

Andrea Attar: Topics in Theoretical Corporate Finance

Matthieu Bouvard: Financial Intermediation and Fintech

Ulrich Hege: Empirical Corporate Finance

Course objectives:

This course will cover a wide array of topics in Corporate Finance and Financial Intermediation. The first objective of the course is to familiarize students with some of the most important research strands and recent advances in the field; given the volume of recent work, the course is necessarily incomplete, but each of the three parts strives to be representative. The second objective is to put students in a position to conduct their own independent research in the field.

Course organization:

The course consists of 3 independent parts, each taught for 5 sessions of 3 hours (for a total of 45 hours), one on Theoretical Corporate Finance (Andrea Attar), a second one on Financial Intermediation and Fintech (Matthieu Bouvard), and the third one on Empirical Corporate Finance (Ulrich Hege). Each part will be evaluated independently (according to a mode announced by the teacher), and count for one third of the final grade. The session plan will be announced in due course.

Topics in Theoretical Corporate Finance

Instructor: Andrea Attar

The main objective of this part of the course is to analyze the effect of financial constraints due to agency problems and competition in financial markets economic activity and market performances.

Our lectures plan to discuss the growing literature which aims at extending the traditional theories of incentives and financial contracting to a general equilibrium framework. We will focus both on adverse selection and moral hazard economies, trying to evaluate both positive and normative issues.

No background beyond first year graduate microeconomics is required, although familiarity with contract theory and information economics is useful.

Outline (Five Lectures of 3h each)

1 Moral Hazard (Lectures 1-2)

(*) Bisin, A. and D. Guaitoli (2004): Moral Hazard and Nonexclusive Contracts, *Rand Journal of Economics* 35(2), 306-328.

- Bisin, A. and A. Rampini (2006): Exclusive contracts and the institution of bankruptcy, *Economic Theory* 27, 277-304.

- Bolton, P., and D. Scharfstein (1996): Optimal debt structure and the optimal number of creditors, *Journal of Political Economy* 104, 1-25.

(*) Parlour, C. A., and U. Rajan (2001): Competition in Loan Contracts, *American Economic Review*, 91(5), 1311-1328.

2 Adverse Selection (Lectures 3-4)

(*) Attar, A., Mariotti, T., and F. Salanie (2011): Non-exclusive competition in the market for lemons, *Econometrica*, 79(6): 1869-1918.

(*) Attar, A., Mariotti, T., and F. Salanie (2014): Non-exclusive competition under adverse selection, *Theoretical Economics* (2014).

(*) Attar, A., Mariotti, T., and F. Salanie (2019): Entry-Proofness and Market Breakdown under Adverse Selection, *mimeo*.

(*) Biais, B., D. Martimort, and J.C. Rochet (2000): Competing mechanisms in a common value environment, *Econometrica*, 78(4), 799-837.

(*) Dubey, P., and J. Geanakoplos (2002): Competitive Pooling: Rothschild-Stiglitz Reconsidered, *Quarterly Journal of Economics*, 117(4), 1529-1570.

2.1 Lack of Commitment: a Strategic View (Lecture 3)

(*) D. Fudenberg and J. Tirole (1990): Moral hazard and renegotiation in contracts, *Econometrica* 58, 1279-1319

(*) N. Netzer and F. Scheuer (2010): Competitive markets without commitment, *Journal of Political Economy*, 118 1079-1109

3 Liquidity and Interbank Markets (Lecture 4-5)

(*) Diamond, D. and Dybvig, P. H. (1983): Bank runs, deposit insurance and liquidity, *Journal of Political Economy* 91, 401-19.

(*) Fahri, E., Golosov, M. and A Tsyvinski (2009): A Theory of Liquidity and Regulation of Financial Intermediation, *Review of Economic Studies*, Vol. 76(3): 973-992.

- Heider F., M. Hoerova and C. Holthausen (2009): Liquidity Hoarding and Interbank Market Spreads: The Role of Counterparty Risk, *mimeo, ECB*

- Parlour C., and, G. Plantin (2008): Loan Sales and Relationship Banking, *The Journal of Finance*, 63 (3), 2008.

(*) Tirole, J. (2011): Overcoming Adverse Selection: How Public Intervention Can Restore Market Functioning, *American Economic Review*, 102(1): 31-59.

NB Papers with (*) are suggested readings.

Financial Intermediation and Fintech

Instructor: Matthieu Bouvard

This part of the course focuses on the interaction between the corporate sector and financial intermediaries that provide access to credit, risk-sharing and payments. We will study the impact of contractual frictions on the stability of the intermediation chain and the impact of technology on financial systems (“Fintech”).

Lecture 1: Financial fragility

Allen F., and D. Gale, “Financial Contagion,” 2000, Journal of Political Economy.

Diamond, D., and P. Dybvig, “Bank Runs, Deposit Insurance, and Liquidity,” 1983, Journal of Political Economy.

Donaldson, J. and G. Piacentino, “Money runs,” 2017, Working paper.

Goldstein I., and A. Pauzner, “Demand-deposit contracts and the probability of bank runs,” 2005, Journal of Finance.

He Z., K. Mildbradt and A. Krishnamurthy, “A model of safe asset determination,” 2019, American Economic Review.

Morris S., and H. Shin, “Global games: Theory and applications,” 2001, Cowles Foundation Discussion Paper No 1275R.

Rochet J.-C., and X. Vives, “Coordination Failures and the lender of last resort: was Bagehot right after all?” 2004, Journal of the European Economic Association.

Lecture 2: Liquidity and Risk Management

Froot, K., D. Scharfstein and J. Stein, “Risk management: Coordinating corporate investment and financing policies,” 1993, Journal of Finance.

Holmström, B. and J. Tirole, “Liquidity and risk management,” 2000, Journal of Money, Credit and Banking.

Holmström, B. and J. Tirole, “LAPM: A Liquidity-Based Asset Pricing Model,” 2002, Journal of Finance.

Rampini A., and S. Viswanathan, “Collateral, risk management, and the distribution of debt capacity”, 2010, Journal of Finance.

Rampini A., S. Viswanathan, and G. Vuillemeys, “Risk Management in Financial Institutions”, 2019, Working Paper.

Lecture 3: Payment systems

Donaldson, J., G. Piacentino and A. Thakor, “Warehouse Banking,” 2018, Journal of Financial Economics.

Dang, T. V., G. Gorton, B. Holmström, and G. Ordonez, “Banks as secret keepers,” 2017, American Economic Review.

Gorton, G., and G. Pennacchi, “Financial intermediaries and liquidity creation,” 1990, Journal of Finance.

Parlour, C., U. Rajan and J. Walden, “Making Money: Commercial Banks, Liquidity Transformation and the Payment System,” 2017, working paper.

Plantin, G., “Shadow banking and bank capital regulation,” 2014, Review of Financial Studies.

Rochet, J.-C. and J. Tirole, “Two-sided Markets: A Progress Report,” 2006, Rand Journal of Economics

Lecture 4: Blockchains

Biais, B., C. Bisière, M. Bouvard and C. Casamatta, “The blockchain folk theorem,” 2019, Review of Financial Studies

Cong W., and Z. He, “Blockchain disruption and smart contracts,” 2019, Review of Financial Studies.

Ferreira, D. J. Li, and R. Nicolowa, 2019, “Corporate Capture of Blockchain Governance”, working paper.

Huberman, G., J. Leshno, and C. Moallemi, 2018, “An Economic Analysis of the Bitcoin Payment System”, working paper.

Saleh F., “Blockchain Without Waste: Proof-of-Stake,” 2019, Working paper.

Lecture 5: Peer-to-peer lending, crowdfunding, ICOs

Chemla, G., and K. Tinn, “Learning through Crowdfunding,” forthcoming, Management Science

Cong, L. W., Y. Li, and N. Wang, “Tokenomics: Dynamic adoption and valuation,” 2018, working paper.

Howell, S., M. Niessner, and D. Yermack, “Initial coin offerings: Financing growth with cryptocurrency token sales,” 2018, working paper.

Li, J. and W. Mann, “Initial coin offerings and platform building,” 2018, working paper.

Strausz, Roland, “A theory of crowdfunding: A mechanism design approach with demand uncertainty and moral hazard,” 2017, American Economic Review.

Morse, A., “Peer-to-peer Crowdfunding: information and the potential for disruption in consumer lending,” 2015, Annual Review of Finance and Economics.

Vallée, B. and Y. Zeng, “Marketplace Lending: A New Banking Paradigm?” 2019, Review of Financial Studies.

Empirical Corporate Finance

Instructor: Ulrich Hege

This part of the course will provide an introduction to recent advances in empirical corporate finance. It will relate to various strands of theory such as contract theory and include connections to other fields such as industrial organization, and other subareas within finance. We will start with a short introduction to the field. The natural starting point is the question what defines the boundaries of the firm, and the relationship to other organizational forms of cooperation outside the firm. Inside their boundaries, typically characterized by a single center of control, firms share a common finance function, so the question of their financial structure and payout policy is the logical next step. Firms are often understood a life cycle; the next three topics, covering the financing of innovation begin with choices of young firms, then their competition with other firms, and finally corporate restructuring and M&A, roughly follow this trajectory. Time permitting, we will open the perspective to questions of companies navigating financial fluctuations (including research on the 2008 financial crisis) and the changing landscape of financial intermediaries.

We will include only a brief dedicated methods section; in this part of the course empirical methods will mostly be studied through the papers discussed and presented during course.

Organization and work expected:

This part of the course covers 5 sessions of 3 hours. The first four sessions will be dedicated to teacher presentations and joint classroom discussion of recent articles. The last session will also include short student presentations.

Students are expected to read assigned articles ahead of the classroom session. They will also prepare a critical report of one research article that should include a replication exercise that will include a short written report and oral presentation that will count for 1/3 of the grade of this part, the rest of the grade will be determined by a final exam.

Topics and session plan:

Topic 1: Introduction and boundaries of the firm

Topic 2: Capital structure, payout policy, and financial constraints

Topic 3: Financing of innovation and entrepreneurial finance

Topic 4: Corporate Finance and product markets

Topic 5: Corporate restructuring, M&A and PE

Readings:

An updated reading list will be distributed at the beginning of the course.

Books:

There is a lack of advanced (PhD level) textbooks in the area of empirical corporate finance. Some Handbooks are pretty useful:

Handbook of the Economics of Finance, ed. by G. M. Constantinides, M.Harris, R.M. Stulz, Elsevier:North Holland, Vol. 2A and 2B (2013) and also Vol. 1A (2003)

Handbook of Corporate Finance: Empirical Corporate Finance, ed. by B. E. Eckbo , Elsevier:North Holland, Vol. 1 (2008) and Vol. 2 (2010)

Also useful:

Handbook of the Economics of Corporate Governance, ed. by B. Hermalin and M. Weisbach, Elsevier: North Holland (2017)

Handbook of the Economics of Innovation, ed. by B.H. Hall and N. Rosenberg, Elsevier: North Holland (2017)

Preferred books on econometrics:

Angrist, D. Joshua, and Jorn-Steffen Pischke (2009) Mostly Harmless Econometrics: An Empiricist's companion. Princeton University Press.

Wooldridge, Jeffrey M. (2002) Econometrics Analysis of Cross-Section and Panel Data, MIT Press MA.

Practical guides on writing referee reports and articles :

Berk, Jonathan, Harvey Campbell, and David Hirshleifer (2016) Preparing a referee report: Guidelines and perspectives, WP SSRN

Wayne Ferson & John Matsusaka (2013) Tips on Writing a Referee's Report, Brazilian Review of Finance, Brazilian Society of Finance, vol. 11(1), pages 9-16.

Cochrane, John (2005), Writing tips for PhD students

*Selected literature on the topics we will cover:***Topic 1: Introduction and boundaries of the firm***Methodology*

McKinlay, Craig A. (1997a) Event Studies in Economics and Finance, Journal of Economic Literature 1997, pp. 13-39

McKinlay, Craig A. (1997b) Event Study-Analysis, Chapter 4 in : J.Y. Campbell, C. MacKinlay, A. Lo, the Econometrics of Financial Markets, Princeton University Press.

Khotari, S.P., and Jerold Warner (1997) Measuring Long-horizon Security Price Performance, Journal of Financial Economics 43, 301-339.

Barber, Brad, and John Lyon (1997), Detecting long-run abnormal stock returns: the empirical power and specification of test-statistics, Journal of Financial Economics 43, 341-372.

Lyon, John D., Brad M. Barber and Chih-Ling Tsai (1998), Improved methods for tests for long run abnormal stock returns, Journal of Finance 54, 165-201.

Brav, Alon, and Paul Gompers (1997), Myth or reality? The long-run underperformance of IPOs: evidence from venture and nonventure capital-backed companies, Journal of Finance 52, 1791-1821.

Bowen, Daniel, Laurent Fresard, and Jerome Taillard (2017) What's Your Identification Strategy? Innovation in Corporate Finance Research, Management Science 63, 2529-2548

Roberts, Michael and Toni Whited (2013) Endogeneity in Empirical Corporate Finance, Chapter 7 in Handbook of the Economics of Finance, ed. by George M. Constantinides, Milton Harris, Rene M. Stulz, Elsevier:North Holland, Vol. 2A (2012) survey

Hennessy, Christopher A., and Strebulaev, Ilya A. (2014) Natural Policy Experiment Policy Evaluation: A Critique, NBER Working Paper, London Business School.

Bertrand, Marianne, Duflo, Esther, and Mullainathan, Sendhil (2004) How much should we trust differences-in-differences estimates, Quarterly Journal of Economics 119, 249-275.

Gormley, Todd, and David Matsa (2014) Common Errors: How to (and Not to) Control for Unobserved Heterogeneity, Review of Financial Studies 27, 617-661.

Coles, Jeffrey, and Zhichuan Li (2012) An Empirical Assessment of Empirical Corporate Finance, Working Paper, Arizona State University.

Petersen, Mitchell (2008) Estimating Standard Errors in Finance Panel Datasets: Comparing Approaches, Review of Financial Studies 22, 435-480.

Jiang, Wei (2017) Have Instrumental Variables Brought Us Closer to the Truth ? Review of Corporate Finance Studies 6, 127–140.

Internal Capital Markets and Boundaries of the Firm

Phillips, Gordon and Vojislav Maksimovic (2013) Conglomerate Firms, Internal Capital Markets and the Theory of the Firm, Annual Review of Financial Economics 5, 225-244

Seru, Amit (2014) Firm boundaries matter: Evidence from conglomerates and R&D activity, Journal of Financial Economics 111, 381-405

Scharfstein, David and Jeremy Stein (2000) The Dark Side of Internal Capital Markets: Divisional Rent-Seeking and Inefficient Investment. *Journal of Finance* 55, 2537-2565.

Rajan, Raghuram, Henri Servaes and Luigi Zingales (2000) The Cost of Diversity: The Diversification Discount and Inefficient Investment. *Journal of Finance* 55, 35-84.

Maksimovic, Vojislav and Gordon Phillips (2002) Do Conglomerate Firms Allocate Resources Inefficiently Across Industries? *Journal of Finance* 57, 721-67

Maksimovic, Vojislav and Gordon Phillips (2008) The industry life cycle and acquisitions and investments: Does firm organization matter? *Journal of Finance* 63, 673–708

Tate, Geoffrey and Liu Yang (2015) The Bright Side of Corporate Diversification: Evidence from Internal Labor Markets, *Review of Financial Studies* 28, 2203–2249

Graham, John R., Michael L. Lemmon and Jack Wolf (2002) Does Corporate Diversification Destroy Value? *Journal of Finance* 57, 695-720.

Lang, Larry and Rene Stulz (1994) Tobin's q, Corporate Diversification, and Firm Performance. *Journal of Political Economy* 102, 1248-1291.

Servaes, Henri (1996) The Value of Diversification during the Conglomerate Merger Wave. *Journal of Finance* 51, 1201-1225.

Villalonga, Belen (2004) Diversification Discount or Premium? New Evidence from the Business Information Tracking Series. *Journal of Finance* 59, 479-506.

Custódio C. (2014) Mergers and acquisitions accounting can explain the diversification discount, *Journal of Finance* 69, 219-240.

Khanna, Naveen and Sheri Tice (2001) The Bright Side of Internal Capital Markets, *Journal of Finance* 56, 1489-1528

Campa, José M., and Simi Kedia (2002) Explaining the Diversification Discount, *Journal of Finance* 57, 1731-1762.

Duchin Ran and Denis Sosyura (2013) Divisional managers and internal capital markets, *Journal of Finance* 68, 387–429

Glaser, Markus, Lopez-de-Silanes Florencio, Sautner Zacharias (2013) Opening the black box: internal capital markets and managerial power, *Journal of Finance* 68, 1577–631

Gopalan R., K. Xie (2011) Conglomerates and industry distress. *Review of Financial Studies* 24, 3642–3687

Kuppuswamy, Venkat and Belén Villalonga (2016) Does Diversification Create Value in the Presence of External Financing Constraints? Evidence from the 2007–2009 Financial Crisis, *Management Science* 62, 905-923

Almeida, Heitor, C-S. Kim, and H.B. Kim (2015) Internal Capital Markets in Business Groups: Evidence from the Asian Financial Crisis, *Journal of Finance* 70, 2539- 2586.

Topic 2: Capital structure, payout policy, and financial constraints

Overview and Classics

Graham, John R., Mark T. Leary, and Michael R. Roberts (2015) A century of capital structure: The leveraging of corporate America, *Journal of Financial Economics* 118, 658-683

Graham, John R. and Mark T. Leary (2011) A Review of Empirical Capital Structure Research and Directions for the Future, *Annual Review of Financial Economics* Vol. 3:309-345

Graham, John R., and Campbell Harvey (2001) The Theory and Practice of Corporate Finance: Evidence from the Field, *Journal of Financial Economics* 60, 187–243.

Franck, Murray Z., and Vidhan K. Goyal (2009) Capital Structure Decisions: Which Factors are Reliably Important? *Financial Management* 38, 1-37

Strebulaev, Ilya (2007) Do Tests of Capital Structure Theory Mean What They Say? *Journal of Finance* 62, 1747-1787

Titman, Sheridan, and Roberto Wessels (1988) The Determinants of Capital Structure Choice, *Journal of Finance* 1-19.

Rajan, Raghuram and Luigi Zingales (1995) What do We Know about Capital Structure? Some Evidence from International Data, *Journal of Finance* 50, 1421-1460.

Booth, Laurence, Varouj Aivazian, Asli Demirguc-Kunt and Vojislav Maksimovic (2001), Capital Structures in Developing Countries, *Journal of Finance* 56, 87-130.

Graham, John (2000) How big are the tax benefits of debt?, *Journal of Finance* 55, 1901-1941

Graham, John (2003) Taxes and Corporate Finance: A Review, *Review of Financial Studies* 16, 1075-1129

Myers, Stewart C. and Lakshmi Shyam-Sunder (1999) Testing Static Trade-off against Pecking Order Models of Capital Structure, *Journal of Financial Economics* 51, 219-244.

Frank, Murray and Vidhan Goyal (2003), Testing the Pecking Order Theory of Capital Structure, *Journal of Financial Economics* 67, 217-248

Leary, Mark T. and Michael R. Roberts (2010) The pecking order, debt capacity, and information asymmetry, *Journal of Financial Economics* 95, 332-355

Almeida, Heitor, Murillo Campello, B. Laranjeira, and Scott Weisbenner (2012) Corporate Debt Maturity and the Real Effects of the 2007 Credit Crisis, *Critical Finance Review* 1, 3-58. Available as NBER Working Paper No. 14990.

Contracting

Sufi, Amir and Michael Roberts (2009) Financial Contracting: A Survey of Empirical Research and Future Directions, *Annual Review of Financial Economics* 1, 207-226

Leary, Mark T. (2009) Bank Loan Supply, Lender Choice, and Corporate Capital Structure, *Journal of Finance* 64, 1143-1185

Benmelech, Efraim, Mark J. Germaise, and Tobias J. Moskowitz, Do Liquidation Values Affect Financial Contracts? Evidence from Commercial Loan Contracts and Zoning Regulations, *Quarterly Journal of Economics* 120, 1121-1154.

Faulkender, Michael and Mitchell A. Petersen (2006) Does the Source of Capital Affect Capital Structure? *Review of Financial Studies* 19, pp-45-79.

Sufi, Amir (2007) Information Asymmetry and Financing Arrangements: Evidence from Syndicated Loans, *Journal of Finance* 62, 629-668

Michael Roberts (2015) The role of dynamic renegotiation and asymmetric information in financial contracting, *Journal of Financial Economics* 116, 61-81

Market Timing, Persistence

Baker, Malcolm and Jeffrey Wurgler (2002) Market Timing and Capital Structure, *Journal of Finance* 57, 1-32.

Alti, Aydogan (2006) How Persistent is the Impact of Market Timing on Capital Structure? *Journal of Finance* 61, 1681-1710.

Leary, Mark T., and Michael R. Roberts (2005) Do Firms Rebalance Their Capital Structures? *Journal of Finance* 60, 2575-2619.

Lemmon, Michael, Michael R. Roberts, and Jaime Zender (2008) Back to the Beginning: Persistence and the Cross-Section of Corporate Capital Structure, *Journal of Finance* 63, 1575-1608.

Financial constraints

Fazzari, Steven, R. Glenn Hubbard, and Bruce C. Petersen (1988) Financing constraints and corporate investment, *Brookings Papers on Economic Activity* (1988), 141-95 (also: *NBER Working Paper*)

Kaplan, Steven N., and Zingales, Luigi (1997) Do Investment-Cash Flow Sensitivities Provide Useful Measures of financing constraints?, *Quarterly Journal of Economics* 112, 169-215

Fazzari, Steven, R. Glenn Hubbard, and Bruce C. Petersen (2000) Investment-Cash Flow Sensitivities are Useful: A Comment on Kaplan and Zingales, *Quarterly Journal of Economics* 115, 695-705

Kaplan, Steven N., and Luigi Zingales (2000) Investment-cash flow sensitivities are not valid measures of financing constraints, *Quarterly Journal of Economics* 115, 707-712

Bakke, Tor-Erik, and Toni M. Whited (2012) Threshold events and identification: a study of cash shortfalls, *Journal of Finance* 67, 1083-1111.

Whited, Toni M., and Guojun Wu (2006) Financial constraints risk, *Review of Financial Studies* 19, 531-559.

Farre-Mensa, Joan and Alexander Ljungqvist (2016) Do Measures of Financial Constraints Measure Financial Constraints? *The Review of Financial Studies* 29, 271–308.

Campello, Murillo, John R. Graham, and Campbell R. Harvey (2010) The real effects of financial constraints, *Journal of Financial Economics* 97, 470-487.

Topic 3: Financing of innovation and Entrepreneurial Finance

Venture Capital

Da Rin, Marco, Thomas Hellmann, and Manju Puri (2012), A Survey of Venture Capital Research; in: George Constantinides, Milton Harris, and René Stulz (eds.) *Handbook of the Economics of Finance*, vol 2, Amsterdam, North Holland

Kaplan, Steven and Per Strömberg (2003) Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts, *Review of Economic Studies* 70, 281-316.

Hellmann, Thomas and Manju Puri (2002) Venture Capital and the Professionalization of Start-up Firms: Empirical Evidence, *Journal of Finance* 57, 169-197

Bengtsson, Ola, and Berk Sensoy (2015) Changing the Nexus: The Evolution and Renegotiation of Venture Capital Contracts, *Journal of Financial and Quantitative Analysis* 50, 349-375

Puri, Manju and Rebecca Zarutskie (2012) On the lifecycle dynamics of venture-capital- and non-venture-capital-financed firms, *Journal of Finance* 67, 2247-2293

Ewens, Michael, Ramana Nanda, and Matthew Rhodes-Kropf (2018), Cost of experimentation and the evolution of venture capital, *Journal of Financial Economics* 128, 422-442

Bernstein, Shai, Xavier Giroud, and Richard Townsend (2016) The Impact of Venture Capital Monitoring, *Journal of Finance* 71, 1591-1622

Kaplan, Steven, Berk Sensoy, and Per Strömberg (2009) Should investors bet on the jockey or the horse? Evidence from the evolution of firms from early business plans to public companies, *Journal of Finance* 64, 75-115

Measures and Determinants of Innovation

Acharya, Viral, Ramin Baghai and Krishnamurthy Subramanian (2013) Wrongful Discharge Laws and Innovation, forthcoming, *Review of Financial Studies* 17, 301-346

Lerner, Josh, Morten Sorensen, and Per Strömberg (2011) Private Equity and Long-Run Investment: The Case of Innovation. *The Journal of Finance* 66, 445-477

Atanassov, J. (2013), Do Hostile Takeovers Stifle Innovation? Evidence from Antitakeover Legislation and Corporate Patenting. *The Journal of Finance* 68, 1097-1131.

Kogan, Leonid, Dimitris Papanikolaou, Amit Seru, Noah Stoffman (2017) Technological Innovation, Resource Allocation, and Growth, *The Quarterly Journal of Economics* 132, 665–712.

Lerner, Josh and Amit Seru (2017) The Use and Misuse of Patent Data: Issues for Corporate Finance and Beyond, NBER Working Paper No. 24053

Entrepreneurial Spawning

Gompers, Paul, Josh Lerner, and David Scharfstein (2005) Entrepreneurial spawning: public corporations and the genesis of new ventures, 1986 to 1999, *Journal of Finance* 60, 577-614

Babina, Tania and Sabrina T. Howell (2018) Entrepreneurial Spillovers from Corporate R&D, WP NYU

Howell, Sabrina T. (2017) Financing Innovation: Evidence from R&D Grants, *American Economic Review* 107, 1136-64

Firm Life Cycle, IPOs, Entrepreneurship, Bankruptcy

Ewens, Michael and Joan Farre-Mensa (2018) The Deregulation of the Private Equity Markets and the Decline in IPOs, SSRN WP, <https://ssrn.com/abstract=3017610>

Claudio Loderer, René Stulz, and Urs Waelchli (2017) Firm Rigidities and the Decline in Growth Opportunities, *Management Science* 63, 3000-3020

Doidge, Craig, Kathleen M. Kahle, Andrew Karolyi and René Stulz (2017) Eclipse of the Public Corporation or Eclipse of the Public Markets? mimeo, ECGI WP.

Gao, Xiaohui, Jay Ritter, and Zhongyan Zhu (2013) Where Have All the IPOs Gone?, *Journal of Financial and Quantitative Analysis* 48, 1663-1292

Robb, Alice and David Robinson (2014) The Capital Structure Decisions of New Firms, *Review of Financial Studies* 27, 153-179

Bernstein, Shai (2015) Does Going Public Affect Innovation?, *Journal of Finance* 70, 1365–1403

Fan, Wei, and Michelle White (2003) Personal Bankruptcy and the Level of Entrepreneurial Activity, *Journal of Law and Economics* 46, 543-567

Topic 4: Corporate Finance and Product Markets

Finance and Concentration

Grullon, Gustavo, Yelena Larkin and Roni Michaely (2017) Are US Industries Becoming More Concentrated? mimeo, SSRN

Giroud, Xavier, Holger M. Mueller (2010) Does corporate governance matter in competitive industries?, *Journal of Financial Economics* 95, 312-331

Fresard, L. (2010) Financial Strength and Product Market Behavior: The Real Effects of Corporate Cash Holdings, *Journal of Finance* 65, 1097-1122

Azar, José and Schmalz, Martin C. and Tecu, Isabel (2018) Anticompetitive Effects of Common Ownership, *Journal of Finance* 73, SSRN: <https://ssrn.com/abstract=2427345>

Blonigen, Bruce A., Justin R. Pierce (2016) Evidence for the Effects of Mergers on Market Power and Efficiency, NBER Working Paper No. 22750

Germán Gutiérrez and Thomas Philippon (2017) Declining Competition and Investment in the U.S., NBER Working Paper 23583, <http://www.nber.org/papers/w23583>

Product Market Behavior and Capital Structure

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

Chevalier, Judith (1995) Capital Structure and Product Market Competition: Empirical Evidence from the Supermarket Industry, *American Economic Review* 85, 415-435.

Phillips, Gordon (1995) Increased Debt and Industry Product Markets: An Empirical Analysis, *Journal of Financial Economics* 37, 189-238.

Khanna, Naveen, and Sheri Tice (2000) Strategic response of incumbents to new entry: The effect of ownership structure, capital structure, and focus, *Review of Financial Studies* 13, 749-779

Zingales, Luigi (1998) Survival of the fittest or the fattest, *Journal of Finance* 53, 905-938.

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

Mackay, Peter, and Gordon M. Phillips (2005) How Does Industry Affect Firm Financial Structure?, *Review of Financial Studies* 18, 1433-1466.

Hoberg, G. and Gordon Phillips (2016) Text-Based Network Industries and Endogenous Product Differentiation, *Journal of Political Economy* 124, 1423-1465

Topic 5: Corporate restructuring, M&A and Private Equity

Overview and Foundations

Eckbo, B. Espen (2014) Corporate Takeovers and Economic Efficiency, Annual Review of Financial Economics 2014, 51-74

Eckbo, B. Espen, Sandra Betton and Karin S. Thorburn (2008), Corporate Takeovers, in B. E. Eckbo (ed.), Handbook of Corporate Finance: Empirical Corporate Finance, Volume 2, (Elsevier/North-Holland Handbook of Finance Series), Ch. 15, 291-430, 2008.

Eckbo, B. Espen, Thorburn, Karin S. (2013) Corporate Restructuring, Foundations and Trends in Finance 7, 159-288.

Jovanovic, Boyan and Peter L. Rousseau (2002) The Q-Theory of Mergers, American Economic Review 92, 198-204

Boone, Audra L. and J. Harold Mulherin (2007) How Are Firms Sold? Journal of Finance 62, 847-875

Gregor Andrade, Mark Mitchell, and Erik Stafford (2001) New Evidence and Perspectives on Mergers, Journal of Economic Perspectives 15, 103–120

Yang, Liu (2008) The Real Determinants of Asset Sales, Journal of Finance 63, 2231-2262

Martynova, Marina, and Luc Renneboog (2008) A century of corporate takeovers, Journal of Banking & Finance 32, 2148-2177

Merger Waves

Rhodes-Kropf, Matthew , David T. Robinson, and S. Viswanathan (2005) Valuation waves and merger activity: The empirical evidence, Journal of Financial Economics 77, 561–603

Dong, Ming, David Hirshleifer, Scott Richardson and Siew Hong Teoh (2006) Does Investor Misvaluation Drive the Takeover Market? Journal of Finance 61, 725-762

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