FIN 395.5 – CORPORATE FINANCE
Fall 2016

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Course Description and Requirements

FIN 395 will review fundamental models/tools of Information Economics and Contract Theory and their applications in Corporate Finance. The class material will be divided in three main parts: Information in Financial Markets, Contract Theory and Topics in Corporate Finance.

There will be a midterm exam (40% of the grade) and a comprehensive final exam (60% of the grade) at the end of the semester. Several problem sets will be distributed. Problem sets are required work.

Lecture notes and required readings (denoted by an asterisk) are essential parts of the course. Other readings are not required, but are important for students who wish to do research in the corresponding area.

PART I: Information in Financial Markets

Brunnermeier, M. (2001), Asset Pricing under Asymmetric Information. Oxford University Press, New York, NY.

Vayanos, D., and J. Wang (2011), "Theories of Liquidity," *Foundations and Trends in Finance* 6, 221-317.

Harris, L. (2003), Trading & Exchanges: Market Microstructure for Practitioners. Oxford University Press, New York, NY.

O'Hara, M. (1995), Market Microstructure Theory. Basil Blackwell, Cambridge, MA.

1. The Informational Role of Asset Prices

Admati, A. (1991), "The Informational Role of Prices," *Journal of Monetary Economics* 28, 347-361.

Gennotte, G. and H. Leland (1990), "Market Liquidity, Hedges, and Crashes," *American Economic Review* 80, 999-1021.

*Grossman, S. (1976), "On the Efficiency of Competitive Stock Markets when Traders Have Diverse Information," *Journal of Finance* 31, 573-585.

Grossman, S. (1981). "An Introduction to the Theory of Rational Expectations under Asymmetric Information," *Review of Economic Studies* 48, 541-559.

*Grossman S. J., and J.E. Stiglitz, (1980), “On the Impossibility of Informationally Efficient Markets,” *American Economic Review* 70, 393-408.

Hellwig, M. (1980), “On the Aggregation of Information in Competitive Markets,” *Journal of Economic Theory* 22, 477-498.

Romer, D. (1993), “Rational Asset Price Movements without News,” *American Economic Review* 83, 1112-1130.

Verrecchia, R. (1982), “Information Acquisition in a Noisy Rational Expectations Economy,” *Econometrica* 59, pp. 1415-1430.

Wang, J. (1993), “A Model of Intertemporal Asset Prices under Asymmetric Information,” *Review of Economic Studies* 60, 249-282.

Wang, J (1994), “A Model of Competitive Stock Trading Volume,” *Journal of Political Economy*, 102, 127-168.

2. Information Asymmetry and Market Microstructure

Admati, A.R., and P. Pfleiderer, (1988), “A Theory of Intraday Trading Patterns,” *Review of Financial Studies* 1, 3-40.

Admati, A.R., and P. Pfleiderer (1991), “Sunshine Trading and Financial Market Equilibrium,” *Review of Financial Studies* 4, 443-481.

Back, K. (1992), “Insider Trading in Continuous Time,” *Review of Financial Studies* 5, 387-409.

Back, K., H. Cao, and G. Willard (2000), “Imperfect Competition among Informed Traders,” *Journal of Finance* 55, 2117-2155.

*Glosten, L. R., and P. Milgrom, (1985), “Bid, Ask, and Transaction Prices with Heterogeneously Informed Agents,” *Journal of Financial Economics* 14, 71-100.

Grossman, S. and M. Miller (1988), “Liquidity and Market Structure,” *Journal of Finance* 43, 617-633.

Holden, C. and A. Subrahmanyam (1992), “Long-Lived Private Information and Imperfect Competition,” *Journal of Finance* 47, 247-270.

*Kyle, A. (1985), “Continuous Auctions and Insider Trading,” *Econometrica* 53, 1315-1335.

Kyle, A. (1989), “Informed Speculation with Imperfect Competition,” *Review of Economic Studies* 56, 317-355.

Lafont J.-J. and E. Maskin (1990), "The Efficient Market Hypothesis and Insider Trading on the Stock Market," *Journal of Political Economy* 98, 70-93.

Madhavan, A. (2000), "Market Microstructure: A Survey," *Journal of Financial Markets*, 3, 205-258.

Rochet, J.-C. and J.-L. Vila. (1994), "Insider Trading without Normality," *Review of Economic Studies* 61, 131-152.

Vayanos, D. (1999), "Strategic Trading and Welfare in a Dynamic Market," *Review of Economic Studies* 66, 219-254.

Vayanos, D. (2001), "Strategic Trading in a Dynamic Noisy Market," *Journal of Finance* 56, 131-171.

PART II: Contract Theory

Bolton P. and M. Dewatripont (2005), "Contract Theory," MIT Press.

Hart, O. (1995) "Firms, Contracts, and Financial Structure," Oxford University Press.

Salanie, Bernard (1997), "The Economics of Contracts: A Primer." MIT Press.

Stole, L. (2001) "Lectures on the Theory of Contracts and Organizations," Unpublished manuscript.

3. Moral Hazard and Incentives Contracts

Baker, G., R. Gibbons and K. Murphy, (1994) "Subjective Performance Measures in Optimal Incentive Contracts," *Quarterly Journal of Economics* 109, pp. 1125-56.

Gibbons R., and K. Murphy (1992) "Optimal Incentive Contracts in the Presence of Career Concerns: Theory and Evidence." *Journal of Political Economy* 100, 468-505.

Grossman, S, and O. Hart (1983), "An Analysis of the Principal-Agent Problem," *Econometrica* 51, pp. 7-45.

Hart, O. and B. Holmstrom (1987), "The Theory of Contracts," in Advances in Economic Theory, Fifth World Congress, edited by Truman Bewley. Cambridge: Cambridge University Press, 1987.

Hellwig, M. and K. Schmidt (2002), "Discrete-Time Approximations of the Holmstrom-Milgrom Brownian-Motion Model of Intertemporal Incentive Provision," *Econometrica* 70, 2225-2264.

Hermalin B., and M. Katz (1991), "Moral Hazard and Verifiability," *Econometrica* 54, 1735-1754.

Holmstrom, B. (1979), "Moral Hazard and Observability," *Bell Journal of Economics* 10, 74-91.

Holmstrom, B. (1982), "Moral Hazard in Teams," *Bell Journal of Economics* 13, 324-340.

Holmstrom, B. (1982, 1999) "Managerial Incentive Problems: A Dynamic Perspective," *Review of Economic Studies* 66, 169-182.

Holmstrom, B., and P. Milgrom (1987), "Aggregation and Linearity in the Provision of Intertemporal Incentives," *Econometrica* 55.

Holmstrom, B., and P, Milgrom (1991), "Multi-Task Principal Agent Analyses," *Journal of Law, Economic and Organization* 7.

Innes, R. (1990), "Limited Liability and Incentive Contracting with Ex Ante Action Choices", *Journal of Economic Theory* 52, 45-67.

Lazear, E., and S. Rosen (1981), "Rank Order Tournaments as Optimal Labor Contracts," *Journal of Political Economy*.

Laffont, J.-J and D. Martimort (2002), "The Theory of Incentives: The Principal-Agent Model," Princeton University Press.

Malcomson, J. and F. Spinnewyn (1988), "The Multi-Period Principal-Agent Problem," *Review of Economic Studies*, 55, 391-407.

Mas-Colell, A., M. Whinston and J. Green (1995), Microeconomic Theory, Chapter 14.

Nalebuff, B. and J. Stiglitz (1983), "Prices and Incentives: Towards a General Theory of Compensation and Competition," *Bell Journal of Economics* 14, 21-43.

Prendergast, C., (1999), "The Provision of Incentives in Firms," *Journal of Economic Literature* 37, 7-63.

Salanie, Bernard (1997), "The Economics of Contracts: A Primer." MIT Press, Ch 5 & 6.

Sappington, D. (1983), "Limited Liability Contracts Between Principal and Agent," *Journal of Economic Theory* 29, 1-21.

Sappington, D. (1991), "Incentives in Principal-Agent Relationships," *Journal of Economic Perspectives* 5, 45-66.

*Stole, L. (2001) "Lectures on the Theory of Contracts and Organizations," Unpublished manuscript.

4. Mechanism Design and Self-selection Contracts (Adverse Selection)

Akerlof, G. (1970), "The Market for Lemons: Quality and the Market Mechanism," *Quarterly Journal of Economics* 84, 488-500.

Baron D., and R. Myerson (1982), "Regulating a Monopolist with Unknown Costs," *Econometrica*.

Bulow, J., and J. Roberts, (1989), "The Simple Economics of Optimal Auctions," *Journal of Political Economy* 97, 1060-90.

*Mas-Colell, A., M. Whinston and J. Green (1995), Microeconomic Theory, Chapters13 and 23.

Moore, J. (1992), "Implementation, Contracts, and Renegotiation in Environments with Symmetric Information." In J.J. Laffont (Ed.), Advances in Economic Theory, Sixth World Congress, Volume 1, pp. 182-282.

Myerson, R., (1981), "Optimal Auction Design," *Mathematics of Operations Research* 6, 58-73.

Myerson, R. and M. Satterthwaite, (1983), "Efficient Mechanisms for Bilateral Trading," *Journal of Economic Theory* 29, 265-281.

Rothschild M., and J. Stiglitz, (1976) "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," *Quarterly Journal of Economics*, 90, 629-649.

Palfrey, T., (1992), "Implementation in Bayesian Equilibrium: The Multiple Equilibrium Problem in Mechanism Design." In J.J. Laffont (Ed.), Advances in Economic Theory, Sixth World Congress, Volume 1, pp. 283-323.

Sappington, D., (1984), "Incentive Contracting with Asymmetric and Precontractual Knowledge," *Journal of Economic Theory* 34, 52-70.

*Salanie, Bernard (1997), "The Economics of Contracts: A Primer." MIT Press. Ch. 5.

*Stole, L. (2001) "Lectures on the Theory of Contracts and Organizations," Unpublished manuscript.

5. Incomplete Contracts and the Theory of the Firm

Aghion, P. and J. Tirole (1997), "Formal and Real Authority in Organizations," *Journal of Political Economy* 105, 1-29.

Alchian, A. and H. Demsetz (1972), "Production, Information Costs and Economic Organization," *American Economic Review* 62, 777-795.

Baker, G., R. Gibbons and K. Murphy, (2002) "Relational Contracts and the Theory of the Firm," *Quarterly Journal of Economics* 114.

Coase, R. (1937), "The Nature of the Firm," *Economica* 4.

Grossman, S, and O. Hart (1986), "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy*.

*Hart, O. (1995), “Firms, Contracts and Financial Structure” Chapters 2-4.

Hart, O. (1989), “An Economist’s Perspective on the Theory of the Firm,” *Columbia Law Review* 89, 1757-1774.

Hart, O. and J. Moore (1990), “Property Rights and the Nature of the Firm,” *Journal of Political Economy* 98.

Holmstrom, B. and P. Milgrom (1994), “The Firm as an Incentive System,” *American Economic Review*.

Holmstrom, B. and J. Tirole (1989), “The Theory of the Firm,” in Handbook of Industrial Organization.

Salanie, Bernard (1997), “The Economics of Contracts: A Primer.” MIT Press. Ch 7.

*Tirole, J. (1999), “Incomplete Contracts: Where do we stand?” *Econometrica* 67, 741-81.

PART III: Corporate Finance

Grinblatt, M. and S. Titman (2002), “Financial Markets and Corporate Strategy,” Irwin-McGraw-Hill 2nd Ed.

Hart, O. (1995) “Firms, Contracts, and Financial Structure,” Oxford University Press.

Tirole, J. (2006) “The Theory of Corporate Finance” (TCF) Princeton University Press.

6. Corporate Finance Basics: Fisher Separation Theorem; Modigliani-Miller Propositions; Trade-off Theory of Capital Structure

Duffie, D. (1992), “Modigliani-Miller Theorem,” in Newman. P. et al. (eds), *The New Palgrave Dictionary of Money and Finance*, Vol. II, MacMillan, 715-718.

Stiglitz, J. (1974), “On the Irrelevance of Corporate Financial Policy,” *American Economic Review* 66, 851-866.

Miller, M.H. (1988), “The Modigliani-Miller Propositions After Thirty Years,” *Journal of Economic Perspectives* 2, 99-120.

Kraus, A., and R. Litzenberger (1973), “A State-Preference Model of Optimal Financial Leverage,” *Journal of Finance* 28, 911-922.

Miller, M.H. (1977), “Debt and Taxes,” *Journal of Finance* 32, 261-273.

7. The Effects of Asymmetric Information on Financial Policy

Ross, S. (1977), "The Determination of Financial Structure: The Incentive-Signaling Approach," *Bell Journal of Economics* 8, 23-40.

Leland, H., and D. Pyle (1977), "Informational Asymmetries, Financial Structure, and Financial Intermediation," *Journal of Finance* 32, 371-387.

Myers, S., and N. Majluf (1984), "Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have," *Journal of Financial Economics* 13, 187-221.

Myers, S. (1984), "The Capital Structure Puzzle," *Journal of Finance* 39, 572-592.

*Daniel, K., and S. Titman (1995), "Financing Investment Under Asymmetric Information," in R. Jarrow et al. (eds.), *Handbooks in Operations Research and Management Science: Finance*, Elsevier Science, Ch. 23.

Stein, J. (1992), "Convertible Bonds as Backdoor Equity Financing," *Journal of Financial Economics* 32, 3-21.

8. An Agency Perspective on Corporate Finance

Jensen, M., and W. Meckling (1976), "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," Journal of Financial Economics, 3, pp. 305-60.

Sappington, D. (1983), "Limited Liability Contracts Between Principal and Agent," *Journal of Economic Theory*, 29, pp. 1-21.

*Tirole (2006) TCF Chapters 3, 4 and 5.

9. Security Design Approach to Capital Structure

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, 647-63.

Allen, F., and D. Gale (1988), "Optimal Security Design," *Review of Financial Studies* 1, 229-264.

Harris, M., and A. Raviv (1989), "The Design of Securities," *Journal of Financial Economics* 24, 255-287.

Aghion, P., and P. Bolton (1992), “An Incomplete Contracts Approach to Financial Contracting,” *Review of Economic Studies* 59, 473-494.

Bolton, P., and D. Scharfstein (1990), “A Theory of Predation Based on Agency Problems in Financial Contracting,” *American Economic Review* 80, 93-106.

Hart, O. (1993), “Theories of Optimal Capital Structure: A Managerial Discretion Perspective,” in M. Blair (ed.), *The Deal Decade: What Takeovers and Leveraged Buyouts Mean for Corporate Governance*, The Brookings Institution, 19-53.

Hart, O. (1995), *Firms, Contracts, and Financial Structure*, Oxford University Press, Chapters 5 and 6.

Hart, O., and J. Moore (1994), “A Theory of Debt Based on the Inalienability of Human Capital,” *Quarterly Journal of Economics* 109, 841-879.

Hart, O., and J. Moore (1995), “Debt and Seniority: An Analysis of the Role of Hard Claims in Constraining Management, “*American Economic Review* 85, 567-585.

Hart, O., and J. Moore (1998), “Default and Renegotiation: A Dynamic Model of Debt,” *Quarterly Journal of Economics* 113, 1-41.

Dewatripont, M., and J. Tirole (1994), “A Theory of Debt and Equity: Diversity of Securities and Manager-Shareholder Congruence,” *Quarterly Journal of Economics* 109, 1027-1054.

Fluck, Z. (1998), “Optimal Financial Contracting: Debt versus Outside Equity,” *Review of Financial Studies* 11, 383-418.

Myers, S. (2000), “Outside Equity,” *Journal of Finance* 3, 1005-1037.

10. Financial Intermediation

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

Gorton, G., and G. Pennacchi (1990), “Financial Intermediaries and Liquidity Creation,” *Journal of Finance* 45, 49-71.

Jacklin, C. (1987) “Demand Deposits, Trading Restrictions, and Risk Sharing,” in Prescott, E., and N. Wallace (eds.), *Contractual Arrangements for Intertemporal Trade*, University of Minnesota Press.

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

Diamond, D. (1991a), “Monitoring and Reputation: The Choice Between Bank Loans and Directly Placed Debt,” *Journal of Political Economy* 99, 689-721.

*Rajan, R. (1992), “Insiders and Outsiders: The Choice Between Relationship and Arm’s Length Debt,” *Journal of Finance* 47, 1367-1400.

*Holmstrom, Bengt, and Jean Tirole, 1997, Financial intermediation, loanable funds, and the real sector, Quarterly Journal of Economics 112, 663-691.