

ANNOUNCEMENT

The Design of Financial Systems and Markets: A Symposium on Financial Intermediation and Corporate Finance

The University of Amsterdam and the Tinbergen Institute, in cooperation with the Banking Research Center at Northwestern University and the Olin School at Washington University, have organized the 1996 JFI Symposium: "The Design of Financial Systems and Markets: A Symposium on Financial Intermediation and Corporate Finance." The symposium will take place at the Golden Tulip Hotel, Loosdrecht, The Netherlands, June 6-8, 1996.

The program of events is as follows (abstracts of papers included):

THURSDAY, JUNE 6

- 09.15 *Welcome*
 Arnoud W. A. Boot (University of Amsterdam)
 Stuart I. Greenbaum (Washington University)

Session I: Going Public

- Chairman: Christopher James (University of Florida)

- 09.30-10.30 *A Theory of the Going-Public Decision*, Thomas J. Chemmanur (Columbia University) and Paolo Fulghieri (INSEAD).

This paper develops a model of the going-public decision of a firm. It addresses the question: At what stage in life should a firm go public, rather than undertake the project using private equity financing (e.g., from a venture capitalist)? In our model, an entrepreneur needs external financing to undertake a positive net present value project. He can raise the money either by selling shares privately to a risk-averse venture capitalist, or by going public and selling shares to numerous shareholders (who will take only small equity stakes in the firm). The entrepreneur has private information about firm value, but outsiders can reduce this informational disadvantage by evaluating the firm at a cost. We show that, in equilibrium, firms go public only when a sufficient amount of information about them has accumulated in the public domain (so that the costs to outsiders of assessing true firm value becomes

sufficiently small); younger firms, for which outsiders' information acquisition costs are greater, choose private equity financing in equilibrium. We also demonstrate that, while some amount of duplication in information acquisition is unavoidable in the equity market, the price in the equity market conveys information across investors, so that only a fraction of the investors in the new issues market have to incur the evaluation cost (thus lowering the aggregate evaluation cost that has to be borne by the firm in equilibrium). Finally, we show that firms with greater capital intensity and those in industries with greater technological uncertainty will go public earlier.

Discussant: Anjan Thakor (Indiana University)

10.30–11.00 Coffee

11.00–12.00 *Why Do Companies Go Public? An Empirical Analysis*, Marco Pagano (Università Degli Studi di Napoli Federico II), Fabio Panetta (Banca d'Italia), and Luigi Zingales (University of Chicago)

This paper empirically analyzes the determinants of an initial public offering (IPO) and the consequences of this decision on a company's investment and financial policy. We compare the ex ante and ex post characteristics of IPOs with those of a large sample of privately held companies of similar size. We find that (i) the likelihood of an IPO is positively related to the market-to-book ratio prevailing in the relevant industrial sector and to a company's size, (ii) IPOs are followed by an abnormal reduction in profitability, (iii) the new equity capital raised upon listing is not used to finance subsequent investment and growth, but to reduce leverage, (iv) going public reduces the cost of bank credit, and (v) it is often associated by equity sales by controlling shareholders, and is followed by a higher turnover of control than for other companies.

Discussant: Sheridan Titman (Boston College)

12.00–14.00 Lunch

Session II: Market Microstructure and Restructuring Financial Markets

Chairman: Stuart I. Greenbaum (Washington University)

14.00–15.00 *Are Financial Market Corners and Short Squeezes Inefficient?* S. (Nag) Nagarajan (McGill University)

This paper rigorously examines the prevalent belief that financial market corners and short squeezes reduce trading efficiency, especially when traders are privately informed. Explicit welfare criteria are proposed, and a trading model based on direct revelation mechanism design methodology is developed. It is shown that market corners and short squeezes are not *per se* inconsistent with trading efficiency if traders are sufficiently risk-averse. An impossibility theorem is then proved: The risk-aversion levels that give rise to corners in the first place can *never* be large enough to achieve efficiency starting from those corners. Increasing the supply of the traded security can restore efficiency, while neither limiting the short positions nor preventing

the cornerer from squeezing the shorts improves trading welfare. These results hold for *any* set of prior beliefs, and for *any* trading game that shares the same preferences and information structure—direct or indirect, extensive-form or normal-form, with or without trading frictions.

Discussant: Sudipto Bhattacharya (London School of Economics and Political Science)

15.00–16.00 *In Search of Liquidity: Block Trades in the Upstairs and Downstairs Markets*, Minder Cheng (Salomon Brothers Asia) and Ananth Madhavan (University of Southern California)

We examine the process of price formation in upstairs and downstairs markets using data on 21,077 large-block transactions in Dow Jones stocks. Using an endogenous switching regression model to correct for selectivity bias, we find evidence that upstairs markets are used by traders who can credibly signal that their trades are not information-motivated. Further, the price impacts for very large trades are lower in upstairs markets than in downstairs markets. However, these differences are economically small for the average trade. Indeed, downstairs markets are a significant source of liquidity, accounting for 80% of trade value. Our results suggest that upstairs markets may exist primarily for the benefit of passive traders who selectively participate in large trades without bearing adverse selection costs.

Discussant: Maureen O'Hara (Cornell University)

16.00–16.30 Tea

16.30–17.30 *The Optimal Enforcement of Insider Trading Regulations*, Peter M. DeMarzo (Northwestern University); Michael J. Fishman (Northwestern University), and Kathleen M. Hagerty (Northwestern University)

We consider the problem of enforcing insider trading regulations. Regulating insider trading lessens the adverse selection problem faced by market makers, enabling them to quote more favorable prices for traders. These benefits of regulation, however, must be balanced against the cost of enforcement. In designing the optimal enforcement policy the objective is to maximize the expected utility of the traders who are not insiders. Specifically, the problem is to design an enforcement policy consisting of (i) the circumstances under which the regulator undertakes a costly investigation to detect the presence of insider trading; (ii) the penalty imposed for insider trading (which may depend upon the level of trade); and (iii) a transaction tax to be levied and used for the regulator's budget. We show that the optimal policy has the following features. Investigations are triggered by large trading volume and/or large price movements. Insiders caught making large trades are assessed the maximum legal penalty, while small trades are not penalized.

Discussant: Ailsa A. Roëll (Université Libre de Bruxelles)

18.00 Cocktails

18.30 Dinner

FRIDAY, JUNE 7

Session III: Security Design and Ownership Structure

Chairman: Arnoud W. A. Boot (University of Amsterdam).

09.00–10.00 *A Dynamic Theory of Corporate Ownership Structure*, Patrick Bolton (London School of Economics) and Ernst-Ludwig von Thadden (Université de Lausanne)

This paper considers the problem of how to design a firm's ownership structure to obtain both the advantages (in terms of greater market liquidity) of dispersed ownership and the advantages (in terms of better monitoring of management) of concentrated ownership. Three different arrangements are contrasted: a privately held firm with a controlling block, a fully dispersed privately held firm, and a publicly traded firm.

Discussant: Gabriella Chiesa (Università di Brescia)

10.00–11.00 *Debt Design, Liquidation Value and Monitoring*, Mike Burkart (London School of Economics & Stockholm School of Economics), Denis Gromb (M.I.T.), and Fausto Panunzi (Università Bocconi)

In this paper we study the design of contracts in a borrower–lender relationship. More precisely, we investigate how differences in the lender's monitoring ability and incentives interact with the liquidation value of the firm and with its division among different claimholders. We propose a theory which reconciles the fact that private debt and bank debt are more protected in bankruptcy than public debt, even though the superior protection enjoyed by those creditors stifles their incentives to monitor. Our point is that different situations require different degrees of monitoring. Increasing the liquidation value for the monitors makes it possible to have more monitoring in those states where monitoring is unconditionally beneficial without stifling managerial incentives.

Discussant: Douglas Diamond (University of Chicago)

11.00–11.30 Coffee

11.30–12.30 *Design and Agency with Risky Securitized Debt*, Timothy J. Riddiough (M.I.T.)

Costs as well as benefits may be associated with the innovative design of securities. This paper considers the cost issue by examining conflicts of interest that may be created when risky debt is pooled and structured into senior/subordinated securities. If credit support levels are set naively, junior securityholders will renegotiate and extend the loan term given borrower default, which creates a wealth transfer from senior to junior security holders. As a consequence, deadweight bargaining costs may be incurred, resulting in an uncompetitive securitized loan market. To align investor interest and ensure competitive security pricing, incentive compatible credit support levels are set higher than naive levels. Both single and multiple asset pools are analyzed. Our findings explain several observed phenomena in the commercial mortgage-backed securities market including high overall

security yields and risk partitioning based on the number of assets included in the loan pool.

Discussant: John Boyd (University of Minnesota)

12.30–14.30 Lunch

Round Table (Location to be announced)

Chairman: Stuart I. Greenbaum (Washington University)

15.30 Arrival at location; coffee/tea

16.00–18.00 *Round Table on Regulation of Financial Institutions and Markets*

Participants: Edward Kane (Boston College), Jonathan Macey (Cornell Law School), and Stuart I. Greenbaum (Washington University); others to be announced

18.00 Cocktails

19.00 Dinner

SATURDAY, JUNE 8

Session IV: Relationship Lending

Chairman: Maureen O'Hara (Cornell University)

9.30–10.30 *Banking Relationships, Financial Constraints and Investment: Are Bank Dependent Borrowers More Financially Constrained?* Joel F. Houston (University of Florida) and Christopher James (University of Florida)

This paper investigates the relationship between a firm's reliance on bank financing and the sensitivity of investment spending to internally generated funds. Using detailed information on the debt structure of 250 publicly traded U.S. firms over the period 1980 through 1993, we find that firms that rely on a single bank lender are significantly more investment-cash-flow sensitive than firms that either have multiple bank relationships or borrow in public debt markets. Moreover, the sensitivity of investment to internally generated funds is found to be monotonically increasing with a firm's reliance on banks for debt financing. Single-bank-dependent firms also appear to hold larger stocks of liquid assets and to have lower dividend payout rates than other firms. Overall, our evidence suggests that single-bank-dependent firms face higher costs of external financing than firms with either multiple banking relationships or access to the public debt markets. Our results are in marked contrast to the findings for large Japanese firms and small privately held U.S. firms.

Discussant: Xavier Freixas (Universitat Pompeu Fabra)

10.30–11.00 Coffee

11.00–12.00 *Distinguishing Between Spot- and Commitment-Based Bank Financing*, Jianping Qi (University of South Florida) and Richard L. Shockley (Rice University and Indiana University)

Costly credit evaluation may allow a bank to “prune” some uncreditworthy borrowers from a pool of observationally identical firms. We show that if the evaluation is sufficiently efficient, the optimal financing contract is a loan commitment with an upfront fee, a prespecified interest rate markup, and a material adverse change clause. Charging an upfront fee to all borrowers compensates the bank for its evaluation costs without adversely affecting the incentive of better quality borrowers who are more likely to get loans (as would be the case if banks were compensated through the loan interest markup), while fixing the borrowing rate prevents intertemporal rent-seeking on the part of the bank. When the evaluation is not sufficiently efficient to be employed, however, there is no need for an upfront fee or for fixing the loan rate markup in advance; thus, the typical spot lending contract is an optimal financing arrangement. Consistent with our model predictions, an empirical analysis of over 1600 bank loan facilities reveals that better quality borrowers are more likely to choose fee-based commitments, that the likelihood of commitment borrowing, as opposed to spot borrowing, is increasing in the quality of the borrower, and that commitment borrowing is cheaper than spot borrowing on an all-in basis.

Discussant: Gregory Udell (New York University)

12.00 Adjourn

12.15 Lunch