

ANNOUNCEMENT

Journal of Financial Intermediation Symposium

Asset Liquidity: The Role of Institutions and the Microstructure of Markets

Washington University, St. Louis, Missouri, June 5–8, 1997

THURSDAY, JUNE 5

Welcome Dinner

Opening Remarks: Stuart I. Greenbaum, Dean, J. M. Olin School of Business, Washington University

Comments: Mark S. Wrighton, Chancellor, Washington University

FRIDAY, JUNE 6

Session I: Tick Size: What is the Optimal Minimal Price Variation?

Chairman: Maureen O'Hara (Cornell University)

8:30–9:30: “Does a Large Minimum Price Variation Encourage Order Exposure?” by Lawrence Harris (USC)

Abstract. The minimum price variation (ticks) affects order exposure. Traders who display their orders risk being front-run. In markets that enforce time precedence, the tick makes front-running expensive. It sets the price of obtaining order precedence through price priority when another trader has time precedence. This paper examines order, quotation, and transaction data from the Paris Bourse and the Toronto Stock Exchange to characterize the relation between tick size and order exposure. The results show that traders display more size when the tick is large and when intraday volatility is small. The topic is particularly timely given recent regulatory interest in reducing sizes.

Discussant: Daniel Weaver (Marquette University)

9:30–10:30: “The Impact of Decimalization of Market Quality: An Empirical Investigation of the Toronto Stock Exchange” by Jeffrey Bacidore (Indiana University)

Abstract. There’s been much recent debate about “decimalization,” i.e., the trading of securities on cent ticks rather than fractions of a dollar. Advocates of decimalization argue that such a move will reduce the costs of trading by permitting liquidity providers to tighten the bid–ask spread, whereas detractors argue that it would adversely impact liquidity. Recently, the Canadian stock exchanges moved from fractional pricing to decimal pricing in an attempt to lower the costs of trading. For stocks trading above C\$5 (i.e., 5 Canadian Dollars), the minimum tick size was reduced from 12.5 cents to 5 cents, while for stocks trading between C\$3 and C\$5, the minimum tick size was reduced from 5 cents to 1 cent. The empirically interesting question is: is decimalization welfare-improving in that it reduces trading costs without diminishing liquidity? I examine the effect decimalization has on market quality using data acquired from the Toronto Stock Exchange. For stocks trading above C\$5, quoted and effective spreads declined significantly following decimalization, indicating that the per-share profits of liquidity providers decline and the trading costs incurred by investors are reduced on average. The decline in spreads is found to be significantly related to price level and trading activity. I find that trading volume does not increase significantly following decimalization. Thus the decline in per-share of liquidity providers following decimalization is not offset by an increase in trading volume.

Discussant: Charles Cao (Penn State University)

10:30–11:00: Break

Session II: Information Acquisition and Monitoring

Chairman: Raghu Rajan (Northwestern University and The University of Chicago)

11:00–12:00: “Monitored Finance, Liquidity, and Institutional Investment Choice” by Andrew Winton (Northwestern University)

Abstract. When agency problems require that a financial institution monitor the firms that it finances, the private information that it gathers about these firms harms the institution’s own liquidity. If only partial monitoring is necessary, lowered risk may reduce the institution’s incentive to monitor, further improving its liquidity. However, if a firm’s initial prospects are poor, debt with reduced monitoring may lead to excessive liquidation; here, if feasible, the firm’s manager prefers equity with reduced monitoring. The preference for debt finance should be most pronounced for firms with limited access to public securities markets. Thus, the model predicts that debt or similar claims will dominate the portfolios of institutions that specialize in providing monitored finance. Among these institutions, those with greater liquidity need should hold fewer monitored equity positions, make less risky loans, and monitor less intensively. These results are consistent with the general pattern of monitored finance and a number of cross-sectional institutional differences.

Discussant: Mark Flannery (The University of Florida)

12:00–1:30: Lunch

Session II (Cont.): Information Acquisition and Monitoring

1:30–2:30: “Information Acquisition, Asset Prices, and Trading Volume in a Dynamic Rational Expectations Model” by Craig Holden and A. Subrahmanyam* (Indiana University and *UCLA)

Abstract. We consider richer specifications of information acquisition than those in the extant literature. In particular, we analyze the equilibrium of dynamic rational expectations models in which (i) agents are allowed to trade in advance of the receipt of a private information signal and the commitment of resources to obtain the signal and (ii) can spend resources to influence the timing of receipt of an information signal. We also consider the premise that since financial information for small companies is more difficult to access, early information acquisition is more costly for such companies relative to large companies. This part of the analysis yields implication for patterns in trading volume and liquidity around public announcements for small versus large companies. The analysis is consistent with momentum (positive serial correlation of asset price changes) in equilibrium, and has implications for empirical patterns of different serial correlation and different risk premia across small and large firms, and the value-growth return differential documented by Lakonishok, Shleifer, and Vishny (1994).

Discussant: Chitru Fernando (Tulane University)

2:30–3:00: Break

Session III: Risk Sharing, Liquidity, and Managerial Decisions

Chairman: Manji Puri (Stanford University)

3:00–4:00: “A Note on Liquidity, Risk-Sharing and the Role of Financial Intermediaries” by Nathalie Rossiensky (London Business School)

Abstract. This paper compares the allocations of consumption and investment with financial intermediaries and capital markets, in the presence of shocks to the agents’ preferences. Specifically, in a simple static framework, I examine the relation between short-term and long-term technologies.

I show that the comparative advantage of financial intermediaries over securities markets is not in providing liquidity, but only insurance to agents against privately observed consumption needs. This result is derived from a welfare analysis of competitive versus coordinated allocations in incomplete markets.

Discussant: Philip Dybvig (Washington University)

4:00–5:00: “The Effects of Asset Liquidity on Managerial Decisions: Evidence from the Contract Drilling Industry” by Chyhe Kim (The University of Chicago)

Abstract. Asset liquidity may be defined as the ease with which an asset is bought or sold. I measure the liquidity of different types of assets using two proxies for liquidity: the frequency of asset sales relative to the underlying asset base and the depth of the buyer’s market. The proxies indicate that well drilling assets were less liquid than oil production and

processing assets over the period 1978–1990. The proxies also show that the illiquid assets are more illiquid when the industry is distressed. The identified liquidity differences are then used to test hypotheses regarding the effects of liquidity differences on managerial decisions. The “liquidity costs” hypothesis is that managers avoid selling illiquid assets unless alternative sources of financing are excessively costly. Consistent with this hypothesis, I find that firms choosing to sell illiquid assets are significantly more financially constrained than firms selling relatively liquid assets. The “liquidity costs” hypotheses is also supported by a second test which provides evidence that firms holding relatively illiquid assets tend to avoid asset sales when the industry is distressed. Another implication of the hypotheses is that the sale of an illiquid asset should convey negative information to the market regarding the firm’s financial distress. An event study indicates that sales of illiquid assets have a significant negative announcement effect, while sales of relatively liquid assets are associated with positive, but not significant, reaction. The second hypothesis is that firms sell their liquid assets before selling illiquid assets during the distressed period. I test this “pecking order” hypothesis by looking at the order in which firms sell their assets and find that the evidence is weak but consistent with the hypothesis. Finally, I find evidence that managers should consider the liquidity of the firm’s asset portfolio when making capital structure and investment decisions.

Discussant: Loretta Mester (Federal Reserve Bank of Philadelphia)

SATURDAY, JUNE 7

Session IV: Competition and Distortions

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

8:30–9:30: “Disclosure Requirements and Stock Exchange Listing Choice in an International Context” by Steven Huddart and John Hughes (Duke University)

Abstract. This paper develops a rational expectations trading model to examine the consequences of international differences in accounting standards. A firm insider chooses the exchanges on which to list his firm’s stock. The firm must meet or exceed the disclosure standards that apply in every jurisdiction where those exchanges are located. Disclosure regimes are ordered according to statistical sufficiency of the public signals of firm value that must be released prior to the trading round. Insiders trade on exchanges where their firm’s stock is listed to maximize profits from their remaining informational advantage. Liquidity traders allocate their demands over the exchanges and firms to minimize trading costs. The model offers intuition regarding the effects of disclosure standards on the worldwide allocation of trading volume and the listing and cross-listing of securities. Notably, we provide conditions under which exchanges plausibly engage in a “race for the top” whereunder disclosure requirements increase and liquidity traders’ trading costs fall.

Discussant: Kerry Back (Washington University)

9:30–10:30: “Can Competition between Brokers Mitigate Agency Conflicts with Their Customers?” by Sugato Chakravarty and Asani Sarkar* (Purdue University and *Federal Reserve Bank of New York)

Abstract. We study competitive, but strategic, brokers executing trades for an informed trader in a multiperiod setting. The brokers can choose to (a) execute the order, as agents, first, and trade for themselves, as dealers, afterward; or (b) trade for themselves first and execute the order later. We show that the equilibrium outcome depends on the number of brokers. When the number of brokers exceeds a critical number (greater than one), the informed trader distributes his order (equally) among the available brokers. The brokers, in turn, execute the informed trader's order first and trade personal quantities as dealers afterward. When the number of brokers is below this critical value, the informed trader gives his order to a single broker, who, in turn, trades personal quantities as a dealer first and executes the informed traders order second. Since the informed trader is hurt in the latter case, he prefers markets with many brokers. Thus, regulators can mitigate trading abuses arising from a conflict of interest between brokers' agency and principal functions (such as front running) by encouraging competition between brokers as an alternative to banning such practices. We empirically show that the critical number of brokers for the favorable competitive equilibrium appears to be satisfied for the futures contract in our sample.

Discussant: Michael Fishman (Northwestern University)

10:00–10:30: Break

10:30–11:30: "Imperfect Competition among Informed Traders" by Greg Willard, Kerry Back and H. Henry Cao* (Washington University and The University of California–Berkeley)

Abstract. We analyze competition among informed traders in the context of the continuous-time Kyle (1985) model. We confirm the conjecture of Holden and Subrahmanyam (1992) that there is no linear equilibrium when traders have identical information. When traders' signals are imperfectly correlated, there is a unique linear equilibrium, which we describe explicitly. Major results concern how the depth of the market varies over time and how the intensity of trading and the rate at which the market learns depend on the number of traders and the correlation of their signals.

Discussant: S. Viswanathan (The University of Pennsylvania and Duke University)

12:00–1:30: Lunch

Session V: Exchange Design and Choice of Exchange

Chairman: Christopher James (The University of Florida)

1:30–2:30: "Transaction Costs and Liquidity: An Empirical Investigation" by Leslie Marx, Michael Barclay, and Eugene Kandel (University of Rochester)

Abstract. We study the effect of changes in a stock's bid–ask spread on its price and trading volume. We examine events involving abrupt changes in the Nasdaq market makers' usage of odd-eighths quotes, as well as stocks that move from Nasdaq to the NYSE or Amex.

We argue that the changes in the bid–ask spreads associated with these events are exogenous to a large extent and thus allow tests of hypotheses on the effects of transaction costs on liquidity premium and trading volume. We find that the effect of exogenous changes in transaction costs on prices is not statistically or economically significant, which contradicts the results of Amihud and Mendelson (1986a,b). We find evidence on the effect of a change in spreads on trading volume that is consistent with the predictions of Constantinides (1986) and Vayanos (1996).

Discussant: Michele LePlante (Santa Clara University)

2:30–3:00: Break

3:00–4:00: “Price Adjustments and Trading Costs on the Nasdaq and NYSE/AMEX” by Marc Lipson and Charles Jones* (The University of Georgia and *Princeton University)

Abstract. Since price changes associated with a trader’s own trading activities can be a significant component of trading costs, we contrast this aspect of market liquidity across the major exchanges. Examining firms which change exchange listings, we find that price adjustments to trading activity are quite gradual on the Nasdaq while almost instantaneous on the NYSE. In fact, price adjustments over very short horizons are about 12 basis points greater on the NYSE than on the Nasdaq, whereas price adjustments over longer horizons are about 7 basis points lower on the NYSE. These differences are more pronounced for large trades than for small trades—the short horizon adjustment is about 45 basis points greater on the NYSE for trades of at least 10,000 shares. On average, it takes about an hour for prices on the Nasdaq to fully adjust to trading activity. In a model of price formation which acknowledges partial price adjustments, we find the half life of a Nasdaq trade’s price impact is about 7 trades versus less than one trade on the NYSE. Our results suggest that the trading costs of traders who accumulate positions through a number of trades will depend on the timing of trade executions. Specifically, traders on the Nasdaq can reduce execution costs related to price adjustments by executing in rapid succession whereas trading costs for traders on the NYSE will be invariant to such timing. More important, our results suggest that studies of trading costs, particularly those which rely on price changes to infer trading cost components, need to account for partial price adjustments when examining the Nasdaq market. Finally, in contrast to prior research, we find that adverse selection costs are larger on the Nasdaq than the NYSE once all price adjustments have occurred.

Discussant: Paul Schultz (Ohio State University)

4:00–5:00: “The Information Contained in Stock Exchange Seat Prices” by Donald Keim and Ananth Madhavan* (The University of Pennsylvania and *USC)

Abstract. Exchange seats are capital assets whose prices reflect expectations about future activity and returns for the stock market as a whole. For this reason, the process by which their prices are determined may provide valuable information about current valuations of the stock market. This paper examines empirically the pricing of New York Stock Exchange Seats using unique data on seat prices and quotes on a daily basis. We examine empirically the relation between differences of opinion regarding future stock market activity and the transaction prices and volume of trading in exchange seats.

Discussant: A. Subrahmanyam (UCLA)

SUNDAY, JUNE 8

Session VI: Market Intermediaries and Liquidity Provision

Chairman: Anjan V. Thakor (The University of Michigan)

9:00–10:00: “The Specialist’s Discretion: Stopped Orders and Price Improvement” by Mark Ready (The University of Wisconsin)

Abstract. When a market order arrives, the NYSE specialist can offer a $\$1/8$ better price to gain priority over the limit orders on the book and trade for his own account. Alternatively, the specialist can “stop” the market order, which means he guarantees execution at the current quote but provides the possibility of price improvement. I show that specialists can use stops to sample the future order flow before making a commitment to trade. I also present evidence that “unadvertised” liquidity, in the form of both stops and immediate price improvement, imposes adverse selection costs on limit order traders.

Discussant: Craig Holden (Indiana University)

10:00–10:30: Break

10:30–11:30: “Dealer Markets under Stress: The Performance of Nasdaq Market Makers” by William Christie and Paul Schultz* (Vanderbilt University and *Ohio State University)

Abstract. During the market crash on October 19, 1987, the liquidity of the Nasdaq market was seriously undermined when dealers reputedly withdrew from market making and refused to trade with customers. This paper tests whether the market reforms enacted subsequent to 1987 improved the liquidity of the Nasdaq market during periods of market stress. Specifically, we study the liquidity of 36 Nasdaq issues on November 15, 1991, which represented the largest post-crash market break as prices fell approximately 4% in one trading session. We find that bid–ask spreads, the percentage of dealers posting inside bid or ask quotes, and trading volume remained virtually unaffected despite the large declines in equity values experienced over very short time intervals. Our evidence implies that the regulatory changes were effective in maintaining the liquidity of the Nasdaq market during periods of unusual price declines.

Discussant: Lawrence Harris (USC)

11:30–1:00: Lunch and adjourn