

Zicklin School of Business Financial Markets Series

Robert A. Schwartz
John Aidan Byrne
Eileen Stempel *Editors*

Rapidly Changing Securities Markets

Who Are the Initiators?

 Springer

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Zicklin School of Business Financial Markets Series

Robert A. Schwartz, Editor

Zicklin School of Business

Baruch College/CUNY

New York, NY, USA

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Editors

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Preface

Rapidly Changing Securities Markets: Who Are the Initiators?

Opening Remarks¹

Robert Schwartz

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Robert Schwartz: Nothing can be better for a conference than sharp debate and conflict. Today I am anticipating a good and vibrant debate. Having said that, let me be a little feisty. I am hearing a lot of good things being said about how our markets have evolved over the years. In many ways, our electronic markets of today are indeed a big improvement over the nonelectronic markets of 15 years ago. Of late, however, I have also been hearing increasing negativity about our market structure. I hear that asset managers are not finding it so easy to execute their big orders. I find this ironic: We have high-frequency trading, we have minuscule latency, and still it can take hours to execute a large order completely.

Markets are more fragile today. I have heard concern that retail customers have lost confidence in the fairness of the markets, and in their stability. How good, we should ask, is market quality for mid- and small-cap stocks? So often in these proceedings, we talk in the abstract with big caps implicitly in our minds. How about the mid and small caps? This is a big, big issue. And how about capital raising in the primary markets?

¹ Readers should note that some of the commentary in these Opening Remarks, for the 2012 Baruch College conference, is integrated at the beginning of Chapter 1, “The SEC’s Order Handling Rules of 1997 and Beyond: Perspective and Outcomes of the Landmark Regulation,” Richard Lindsey, John Aidan Byrne, and Robert A. Schwartz, *Journal of Portfolio Management*, Spring 2016, reprinted with permission of the *Journal of Portfolio Management*. This paper is based on an address by Richard Lindsey at the same 2012 conference.

The session I will be moderating at 9:30 am this morning is titled, “How do the Markets Look 15 Years after the 1997 Order Handling Rules?” My friends, two things happened in 1997: The order handling rules were enacted, and I left NYU’s Stern School of Business and came to Baruch. Some contrasts can be made. In the ensuing years, NASDAQ, the NYSE, and Baruch have all been fundamentally reengineered. My going to Baruch has turned out to be a great decision for me, and I am delighted to be here. Moreover, with all the change in the industry, with all the perpetually unanswered questions, I believe that I could keep on running these Baruch conferences forever. It is amazing how the discussions keep going on and on.

Exchanges have privatized. Baruch as a part of CUNY has not. Sometimes I think we should have, and sometimes I think the exchanges should not have. We have a fantastic new building, the one you are sitting in right now. When I got to Baruch in 1997, this site was a big hole in the ground. Across the street from the big hole in the ground, on the first floor of our Library Building, seeds were being sewn that led to the development of our Wasserman Trading Floor-Subotnick Financial Services Center, home of what I will call the best business school trading room in the country. Down at 11 Wall Street... oh my god, what happened to the Big Board’s trading floor? We have greatly strengthened our faculty with excellent new hires. Gosh, what happened to NASDAQ’s dealer market?

These are other contrasts. How about transparency? Well, I am not telling you. Like a dark pool, my mouth is shut on this one. How about fragmentation? Baruch hasn’t fragmented, and we have gotten far more competitive on a national level. The equity markets? We now have 13 public exchanges and over 40 ATSS! Wow, what a change on this score since I got to Baruch. The clock ticks slowly in academia. It can take years to produce a research paper, and then it can take a year or more to get it accepted for publication. For sure, we in academia know all about latency. Our equity markets are on the opposite end of the spectrum. In our electronic markets today, time is measured in milliseconds. Fast is good but when is fast too fast? I know that we will be talking a lot about this today.

So, everybody, let’s get started.

List of Participants

Name	Company	Title
Janet Angstadt	Katten Muchin Rosenman LLP	Partner
Stephen Bookbinder	GreenCrest Capital	Global Head of Sales
Harold Bradley	The Ewing Marion Kauffman Foundation	Former Chief Investment Officer
Kevin Callahan	AX Trading Network	CEO
Doug Clark	ITG Canada Corp., ITG, Inc.	Managing Director, Research
Chris Concannon	Virtu Financial	Partner
Tom Gira	FINRA	Executive Vice President and Head of Market Regulation
Bill Harts	Harts and Company	President
Frank Hatheway	NASDAQ OMX	Chief Economist
George Kledaras	FIX Flyer	Chairman
Cheryl Knopp	Liquidnet	Co-Head of Corporate Strategy/ Liquidnet Private Shares
David Krell	International Securities Exchange	Chairman
Richard Lindsey	Callcott Group LLC	CEO
Timothy J. Mahoney	BIDS Trading L.P.	CEO
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Michael Pagano	Villanova University	Professor of Finance
Kenneth Pasternak	KABR Real Estate	Chairman
Joe Ratterman	BATS Global Markets, Inc.	Chairman, President, and CEO
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Keith Ross	PDQ Enterprises LLC	CEO
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Robert Shapiro	Bloomberg Tradebook LLC	Head of Trading and Execution Consulting
Jeffrey Sprecher	Intercontinental Exchange, Inc.	Chairman of the Board and Chief Executive Officer
Adam Sussman	TABB Group	Head of Research
Neal Wolkoff	American Stock Exchange	Former CEO/Chairman

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Chapter 1

The SEC's Order Handling Rules of 1997 and Beyond: Perspective and Outcomes of the Landmark Regulation

Richard Lindsey, John Aidan Byrne, and Robert A. Schwartz

The Securities and Exchange Commission's Order Handling Rules (OHRs) of 1997 ushered in a period of fundamental and unprecedented change in the competitive structure of the US equity markets. Most significantly, the OHRs led to the reengineering of NASDAQ's dealer market. The new rules required market makers (1) to display customer limit orders in their quotes, (2) to display these quotes in the NASDAQ quote montage whenever they have placed more aggressively priced customer quotes in an electronic communications network (ECN), or else (3) to update their own quotes in NASDAQ to match the ECN quotes. In discussing these rules, Schwartz and Francioni (2014) put it this way:

The proverbial cat was out of the bag. The new requirements set the stage for the electronic communications networks to enter the field. Before the rules were instituted, Instinet was the one and only ECN. By September 1999 there were nine. [2004]

On a December evening in 1996, in a large hotel ballroom in lower Manhattan, the lead author of this paper (Lindsey) took the stage to face several hundred NASDAQ broker-dealers. Another author (Schwartz) was in the audience. The scene was certainly historic. In his courageous presentation, Lindsey outlined the details of the proposed OHR regulation. The import of the message was etched on the anxious faces of those present. After his presentation had concluded, these same people filed quietly out of the ballroom. Only the shuffling of their footsteps broke the eerie silence.

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In the nearly two decades since the 1997 Order Handling Rules were introduced, the equity markets have experienced tremendous technological innovation, intensified competition between an expanding set of alternative trading venues, and further regulatory change. How has market quality responded? What further structural and regulatory changes are still required? These were among the key questions addressed at the Baruch Conference.¹

To be sure, nothing is better for the success of a conference than robust debate and creative conflict. That said, let us be a little feisty here. Positive things are said about how our markets have evolved over the years. In many ways, our electronic markets today are a huge improvement over their non-electronic predecessors. Lindsey's presentation at the Baruch Conference described many of these valuable changes. Nevertheless, other voices have expressed negativity and doubt about elements of our market structure. For example, it is noted that asset managers are finding it difficult to execute their large orders.² Electronic markets can be fragile (to wit, the May 6, 2010, Flash Crash). Moreover, retail customers' confidence in the stability and fairness of the markets appears to have been shaken. How good, one might then ask, is market quality for mid- and small-cap stocks? And how about capital raising in the primary markets?

The major developments since 1997 are not, of course, attributable exclusively to the Order Handling Rules. The previously noted technological change, the evolving competitive landscape, and further regulatory initiatives are also major causal factors. So too are the exchanges' transitions from membership organizations to for-profit enterprises, alongside the expanding globalization of trading.³ In the next section of this paper, we consider the pressures for change that faced the markets in the years leading up to the institution of the 1997 Order Handling Rules.

The Pressures for Change

At the time of the Baruch Conference, the S&P 500 index was roughly six times the level it had been 25 years earlier. We deliberately selected 25 years prior as a starting point because that was roughly 1 year after the 1987 Market Crash.⁴ Because the crash was such a disruption in the market, it spurred many subsequent changes,

¹This chapter is a slightly amended paper of the same title by Richard Lindsey, John Aiden Byrne and Robert A. Schwartz, published in the *Journal of Portfolio Management*, Spring 2016. The paper was developed from Lindsey's Opening Address at this 2012 Baruch Conference in New York City. Reprinted with permission from the *Journal of Portfolio Management*.

²This is a bit ironic. We have high-frequency trading and miniscule latency, but it can still take hours to completely execute a large order.

³A timeline of major market changes, starting with Instinet's launch in 1969, is presented in Exhibit 1.

⁴The Stock Market Crash of 1987 or "Black Monday" on October 19, 1987, was the largest one-day market crash in history. The Dow lost 22.6% of its value, or \$500 billion dollars.

ranging from mechanizing trading systems to improving our market structure. But much more went on behind the scenes than people ever realized.

The events of the past quarter century have been studied closely in market microstructure papers. In academia, market microstructure, which studies how markets should work and be designed, has become a growth industry. Unfortunately, however, some of the academic literature can be slightly misinformed or misguided.

For example, in the 1990s, most academic thinking held that, when a market order went to a dealer, the order would be routed for execution to the best quote in the market, regardless of which dealer displayed that quote. In other words, dealer markets were thought to be highly competitive. But that is not the way the markets worked. When your market order went to a dealer *and* your dealer happened to have the best quote, your order was executed at that price. Otherwise, your order might not have been executed at all – or it might have been executed later at an inferior price, even though better prices were available in the market when the order was submitted. Dealers kept their order flow to themselves and didn't really compete with each other on price to attract order flow. Dealers did not route customer orders to other, competing dealers for execution. In short, markets did not work the way academics thought.

In the 1990s, academics began to focus on how investors should (and did) interact with the market – that is, how they actually bought and sold securities. In that process, the academics discovered that there were hidden costs associated with transacting in the markets. And institutional investors began to take this research to heart. They realized that they should care about the bid-ask spread, that they should care about market impact⁵ and implementation shortfall,⁶ and that they should care about how markets actually worked. All of these costs mattered because they affected the performance of their investment portfolios. When institutional investors actually began to care about these things and became proactive, the market started to change, and it did so simply because the largest customers were demanding change.

But it should be kept in mind that the real driver of market innovation has always been technology. Markets cannot stand in the way of technology. History shows that incumbent markets usually try to fight those changes, but in the end they do not succeed.

Let's turn the clock back a little – to 1969. That was the year Instinet began, representing, perhaps, the first electronic marketplace for stock trading in the USA. Two years later, in 1971, NASDAQ, an electronic dealer market in stocks, was launched. Because of these and other changes then on the horizon, in 1975 Congress

⁵“Market impact” refers to the impact of a decision to buy or to sell a security as reflected in the extent to which the buying or selling shifts the prices against the buyer or seller.

⁶“Implementation shortfall” refers to the difference between the current price or value when a decision is made to buy or sell a security and the final execution price or value, factoring in commissions, fees, and taxes. In sum, implementation shortfall is the total of the execution costs and the opportunity cost in the instance of adverse market movement between the time of the trading decision and order execution.