



**SHADOW  
FINANCIAL  
REGULATORY  
COMMITTEE**

COMMITTEE MEMBERS

GEORGE G. KAUFMAN  
Co-Chair  
Loyola University Chicago

RICHARD J. HERRING  
Co-Chair  
University of Pennsylvania

MARSHALL E. BLUME  
University of Pennsylvania

KENNETH W. DAM  
University of Chicago Law School  
and Brookings Institution

FRANKLIN EDWARDS  
Columbia University

ROBERT A. EISENBEIS  
Cumberland Advisors

EDWARD J. KANE  
Boston College

PAUL KUPIEC  
American Enterprise Institute

ALBERT S. KYLE  
University of Maryland

FRANK PARTNOY  
University of San Diego School of  
Law

KENNETH E. SCOTT  
Stanford Law School

ERIK R. SIRRI  
Babson College

DAVID SKEEL  
University of Pennsylvania Law  
School

CHESTER SPATT  
Carnegie Mellon University

An independent committee  
sponsored by the  
American Enterprise Institute

<http://www.aei.org/shadow>

Administrative Office  
c/o Professor George Kaufman  
Loyola University Chicago  
820 North Michigan Avenue  
Chicago, Illinois 60611  
Tel: (312) 915-7075  
Fax: (312) 915-8508  
E-mail: gkaufma@luc.edu

Statement No. 353

Albert S. Kyle  
(919)-225-9696

Erik Sirri  
(508)-655-1068

Chester Spatt  
(412)-260-8153

Statement of the Shadow Financial Regulatory Committee on  
**Revisiting Equity Market Structure: Principles to Promote  
Efficiency and Fairness**

September 15, 2014

Introduction

Considerable attention has focused recently upon the channels through which financial instruments trade in the United States. The structure of our system for trading equity has come under particular scrutiny. Because important coordination features underlie our trading system, many of the principles underlying the market architecture are determined by the Securities and Exchange Commission (SEC). As a result of regulatory changes, including the 2005 adoption of Regulation NMS, our trading system has changed dramatically in the last decade. Rather than a single major platform in which a dominant market maker, the specialist, has considerable market power (the NYSE's market share has fallen from almost 80% to 20% for stocks that are listed on the NYSE), we have moved to a system in which trading is highly fragmented and there is tremendous competition among platforms. While the new landscape is complex and highly prescriptive in regulating the microstructure of setting prices, trading costs have declined substantially in the aftermath of Regulation NMS (see Angel, Harris and Spatt (2011, 2014)), thereby benefiting all investors.

There are competing values and objectives in the design of our market architecture. For example, the SEC has often looked favorably upon market structures that favor small investors, a subject of special interest by the SEC under its investor protection mandate. Yet much

of the capital market investments of individual investors in recent years occurred through institutional asset managers, who presumably have trading and market-making expertise. The strong competition between market centers favored in our current market structure also creates the potential for agency conflicts (different preferences between the investor and the broker) in the order routing decision. The meaning of “best execution” requirements is central to this question.

In addition, new complaints and questions have emerged about the “fairness” of US equity markets. For example, to what extent do the various tactics of other traders disadvantage order placement? To the extent that regulatory reforms are needed, what are key principles that regulators should consider as they grapple with these challenges? Arguably, there is insufficient attention to asking strategic questions and more narrowly focusing attention upon whether particular tactics are “fair”. Indeed, the purpose of promoting market competition more broadly is less about fairness or equality and more about ensuring efficient outcomes for society. Of course, there could be tradeoffs between fairness and access (or efficiency).

Allowing traders who have made investments in technology to trade at better prices and on better terms than traders who are slower or less sophisticated could be reasonable policy. For example, on the buy side our regulations generally allow such practices with respect to the production and use of fundamental information. On the other hand, there may be situations in which traders are evading the rules and obtaining unfair advantage. Complexity renders opaque the underlying economics of many of these issues, and it may be hard for the public or SEC to fully evaluate what should constitute reasonable and economically appropriate behavior.

There are broad philosophical and practical judgments that regulators should consider to help guide their decision-making. Indeed, in our current regulatory environment, cost-benefit analysis plays an important role. The potential for serious cost-benefit analysis is especially great in the context of market structure questions due to the readily identifiable market failures (market power, externalities and costly private information), the potential richness of the available data, and the ability to design and undertake pilot studies and controlled experiments to generate relevant data. For example, experimental approaches were highly successful in evaluating the up-tick restrictions on short sales in 2007, and the approaches are now the focus of attention in evaluating potential changes in tick size. Even in market structure contexts, designing suitable ways to generate and evaluate evidence can be challenging, but we believe there is a genuine opportunity for data-driven regulatory reform and that the SEC should pursue this activity.

### Problems and Issues

The fragmentation of trading (executions are split among a number of platforms) and the proliferation of platforms have enhanced concerns about the fairness of trading, especially because the executions of a transaction occur at a range of prices (both within and across platforms). Of course to some degree this is inherent in filling a large order in the limit order book even in a single platform. However, aspects of this are a direct consequence of the

regulatory structure, as the order protection rule within Regulation NMS requires execution against the most favorable price on a platform. Indeed, the regulation potentially promotes entry of platforms because of the special treatment afforded to the top of the book on a platform whose pricing is advantageous (though we note that protecting only the top of the book leads to various inconsistencies in regulatory impact in addition to promoting additional entry of platforms).

A specific criticism of our fragmented system is that the faster executions obtain more favorable pricing. Yet this is in the spirit of market design in which larger trades receive less favorable pricing. Theoretical models of the sequential trading of positions of large trades also suggest that the submission of an order reflects the possibility of further quantity beyond it. This is one of the economic forces behind dark pools and dark liquidity. Once some initial quantity is traded, the possibility of further trading (and the subsequent less favorable pricing) becomes more evident. This consequence would seem to be reinforced by a structure in which executions at nearby platforms are announced more quickly than those at more distant platforms. Indeed, the potential order cancellations that are associated with the initial fill reports can be understood from that perspective.

Even this preliminary discussion of our system for trading equity highlights some of the tension between competition for an individual order, as in central limit order clearing versus competing platforms, as in a (inherently fragmented) dealer market. Ultimately, these represent somewhat alternative paths. In a sense our current regulatory regime attempts to reflect both. Regulation NMS and the U.S. regulatory framework clearly promote intermarket competition while simultaneously addressing the competition for an individual order.

#### A consideration regarding investment

To promote investment in information and infrastructure requires advantaging market participants who undertake such investments. This may lead to diminished access (e.g., higher latency) or other disadvantages for those who don't make such investments (and indeed, this has been important for creating the right incentives in various aspects of the financial system). Advantages derived from investment may be necessary to promote innovation and is an important concept for regulators to consider.

At least some innovations may not be universally desirable, but balancing out winners and losers from a given change is a difficult task. Some criticism in the public arena in recent years is tied to the dramatic technological progress in trading, which has resulted in trading decisions that are much quicker than human traders can plausibly make. One of the interesting challenges that the regulators now face is concern whether the past extent of technological innovation and benefits that have resulted should influence the desirability of future innovation and the extent to which such continued innovation should be encouraged. The potential availability of economic profits naturally encourages competition to try to capture these profits. What would have been the consequences of discouraging such competition a decade ago? Over the years differential access and speed have often been an issue in trading—while times are now measured in micro seconds, similar issues were present

in the old trading systems that technology replaced as well as when trading ships returned to Europe from the Far East many centuries ago and also at the time of the Pony Express.

### Shadow Committee Proposals

1. It would be extremely helpful for regulators to release on a one-time basis a substantial panel of regulatory data, appropriately sanitized for privacy reasons, to help assess such issues as order routing, execution quality, inducements for order routing, and differential treatment of customers. Among the relevant data would be information about the executing broker, the venues to which the order was routed before execution, and pertinent customer characteristics. This would facilitate analyses by third parties such as investors, market centers, industry service providers, and academics, which could help inform the regulatory review. We note that there are precedents for releasing regulatory data to facilitate independent policy guidance as illustrated by the SEC's Regulation SHO pilot.

2. The current regulatory system allows for non-discriminatory sale of market data with differing degrees of latency. This has raised fairness concerns by market commentators. As part of its broader market structure review the SEC should develop a detailed understanding of which types of participants are using core and non-core data and whether the uses of these data reflect incentive conflicts. This could be relevant to understanding how broker-dealers implement best execution.

3. The availability and use of data by broker-dealers is a central aspect of best execution determinations. There is an inherent agency conflict in order routing. Currently, the SEC lacks the data to evaluate execution quality. It is important that the SEC have both an analytical and empirical basis for evaluating these decisions. The SEC should foster the creation of statistics that facilitate the evaluation of broker execution quality. For example, the SEC could create and publish such statistics directly. Alternatively, the SEC could require brokers to create such statistics based upon their own routing decisions. Finally, the SEC could allow the periodic release of samples of raw data into the public domain that would allow others to create statistics to evaluate quality. We note that setting up a regime to solve the best execution routing problem could take many years, but a one-time public release of routing data containing information about prices, venues, executions, brokers and trading data could be done much more expeditiously. Others would be in a position to analyze the data and help guide the SEC. A central advantage of sharing SEC data is that it would substantially increase the resources available to the securities regulator for examining this issue.

4. Another source of concern expressed by market commentators is trading outside of publicly displayed orders on transparent exchange markets. This trading can occur in broker-dealers via internalization, in dark pools, or via dark orders traded on traditional exchanges. Maintaining investor confidence in equity markets is paramount. As the SEC studies market structure, it should study who uses non-displayed orders and dark pools. We note that there are sound economic reasons for investors not wanting to display their orders prior to its

execution. If the SEC were to find that these dark orders convey important benefits to the markets, so that it could better defend its view.