Available online at www.sciencedirect.com

ScienceDirect

Journal of Financial Markets 17 (2014) 174–198

Journal of FINANCIAL MARKETS

www.elsevier.com/locate/finmar

Market transparency, market quality, and sunshine trading ☆

M. Ángeles de Frutos[a], Carolina Manzano[b,*]

[a]Department of Economics, Universidad Carlos III de Madrid, Spain
[b]Department of Economics and CREIP, Universitat Rovira i Virgili, Av. de la Universitat 1, Reus 43204, Spain

Received 23 November 2012; received in revised form 3 June 2013; accepted 3 June 2013
Available online 18 June 2013

Abstract

This paper analyzes the implications of pre-trade transparency on market performance. In competitive markets, transparency increases market liquidity and reduces price volatility, whereas these results may not hold under imperfect competition. More importantly, market depth and volatility might be positively related with proper priors. Moreover, we study the incentives for liquidity traders to engage in sunshine trading. We obtain that the choice of sunshine/dark trading for a noise trader is independent of his order size. The traders with higher liquidity needs are more interested in sunshine trading, as long as this practice is desirable.

JEL classification: D82; G12; G14

Keywords: Market microstructure; Transparency; Prior information; Market quality; Sunshine trading

1. Introduction

One of the most surprising phenomena in the microstructure of financial markets is the heterogeneity in pre-trade transparency exhibited by different trading venues.[1] Although one could argue that most of the modern stock trading platforms distribute information on depth, accessible to traders either by subscribing directly to the market feed, or by purchasing

☆The first author acknowledges financial support from Project ECO2012-34581, and the second author from Project ECO2010-19733. We would like to thank Jordi Caballé and Montserrat Ferré for helpful comments.
*Corresponding author. Tel.: +34 977 758914.
E-mail address: carolina.manzano@urv.cat (C. Manzano).
[1]Pre-trade transparency refers to the wide dissemination of price quotations and orders before trade takes place.

1386-4181/$ - see front matter © 2013 Elsevier B.V. All rights reserved.
http://dx.doi.org/10.1016/j.finmar.2013.06.001

a consolidated feed, it is also true that in the last ten years there has been a tendency to introduce anonymity into stock, bond, and foreign exchange markets.[2] Similarly, we are nowadays envisioning the evolution to dark trading in exchange markets.[3] An investigation on dark trading can be found in Bloomfield, O'Hara, and Saar (2011). They compare visible markets in which all orders must be displayed, iceberg (or reserve) markets that allow both displayed and partially displayed orders, and hidden markets in which orders can be non-displayed.[4]

There is broad agreement that transparency matters; it affects the informativeness of the order flow and, hence, the process of price discovery, but the key effects of transparency on security markets are complex and contradictory. As pointed out by Eom, Ok, and Park (2007, p. 319) "… there is no consensus on whether an increase in pre-trade transparency results in an improvement or deterioration in market quality." These authors study changes in pre-trade transparency in the Korea Exchange. They conclude that market quality is increasing in pre-trade transparency. In the same line, Boehmer, Saar, and Yu (2005) find that the introduction of OpenBook by the NYSE leads to a more active management of trading strategies and improvements in terms of liquidity and informational efficiency. These results contrast with findings derived in Madhavan, Porter, and Weaver (2005). This paper shows that an increase in pre-trade transparency in the Toronto Stock Exchange leads to wider spreads, lower depth, and higher volatility. This is consistent with the empirical evidence from the French Stock Exchange, where liquidity increased after anonymity was introduced (Foucault, Moinas, and Theissen, 2007), the same occurred when brokers identification codes were removed at the Tokyo Stock Exchange (Comerton-Forde, Frino, and Mollica, 2005). Similarly, the experiments by Bloomfield, O'Hara, and Saar (2011) support the robustness of informational efficiency and liquidity in opaque regimes too.

In this paper we focus on anonymity, which is a particular aspect of pre-trade transparency. When broker identities are displayed, investors learn about order flows.[5] Thus, we investigate the effects of disclosing information about the composition of the order flow to market participants. Depending on who makes the disclosure decision, two types of pre-trade transparency can be distinguished: mandatory/prohibited and voluntary. In the former, the decision whether to reveal (or not to reveal) information about the composition of the order flow is taken by the exchange. In the later, the investors voluntarily decide whether to reveal the orders.

One of the studies focused on the implications of the first type of pre-trade transparency is Madhavan (1996). He compares two trading mechanisms, called opaque and transparent. In the opaque market, the exchange does not reveal any information about the composition of the order flow, whereas in the transparent market the exchange reveals the price insensitive component that comes from traders who have liquidity needs. He shows that there exists an inverse relationship between price volatility and market depth; for some parameter configurations, an increase in transparency delivers the desirable properties of higher liquidity and lower price volatility, whereas for others it can exacerbate volatility and decrease liquidity. These results are derived

[2]Anonymity was introduced into the French Stock Exchange in 2001 and into the Italian one in 2004.

[3]Dark pools are trading systems where there is no pre-trade transparency of orders in the system. They can be split into two types: systems such as crossing networks in which cross orders are not subject to pre-trade transparency requirements, and trading venues, such as regulated markets and MTFs, that use waivers for avoiding to display orders. By contrast, lit markets are pre-trade transparent.

[4]Other issues related to pre-trade transparency are the comparison of floor versus automated trading systems and the logic for trading halts, among others.

[5]Linnainmaa and Saar (2012) show that broker identities can be used to extract meaningful signals about the types of investors who initiate trades.