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Networks and equity market integration: European evidence☆

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Abstract

Deregulation, globalization, and technological developments have altered the business strategies of stock exchanges around the world. We investigate whether the adoption of network strategies by stock exchanges creates additional value in the provision of trading services. Using unbalanced panel data from all major European exchanges over the period 1996–2000, we examine the consequences of network cooperation on a number of stock market performance measures. We show that adopting a network strategy is associated with higher market capitalization, lower transaction costs, higher growth, and enhanced international stock market integration.

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1. Introduction

Stock exchanges have experienced a challenging environment in recent years. Globalization and integration of all types of financial markets, the continuous emergence of innovative technology, new deregulatory initiatives, and the adoption

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of alternative corporate governance systems are among some of the key issues faced by exchanges around the world. The integration process has increased the popularity of mergers, especially implicit mergers or network deals among exchanges. As companies seek to broaden their shareholder base and raise capital beyond local markets (Domowitz, Glen, & Madhavan, 1998; Lee, 1998; Licht, 1998; Pagano, Randl, Röell, & Zechner, 2001), such implicit mergers[1] are often preferred by investors as an alternative to multiple listings across markets. Exchanges also prefer this type of deal, which allows them to avoid direct competition from stronger markets. This type of arrangement is also capable of developing a more competitive environment, where the most efficient exchanges will eventually win the confidence of investors, traders and companies (Cybo-Ottone, Di Noia, & Murgia, 2000). It provides a common trading platform among exchanges that are willing to open up to each others' markets for cross-listing and trading purposes, with ample freedom for brokers and traders to operate across markets. Network arrangements also help in gaining new demand for exchange products, and can bring efficiency gains through economies of scale (Economides, 1993, 1995; Hasan & Malkamäki, 2001).

Shapiro and Varian (1999) point out that computer technology, that is, networks, will tend to dominate the trading business as they provide investors with enhanced options The recent success of EUREX is a good example of how networks can replace a trading floor in another country.[2] European exchanges, historically local monopolies, are the most active players in adopting the network or common trading platform. Taking their cue from NASDAQ's proposed and partially implemented global plan to list and trade across markets, the European exchanges have taken the lead in forming and joining in active network cooperation among European markets. In fact, the majority of the 100 executed or potential merger-related deals in the world are in Europe (Cybo-Ottone et al., 2000). There are four interexchange cooperation models that link security markets within and outside European boundaries.

While the finance literature is abundant in introducing and describing the potential benefits of network arrangements in terms of increased participation, liquidity, efficiency, and transaction costs, no paper to date discusses the potential consequences of adopting such network cooperation. Cybo-Ottone et al. (2000) provide the first descriptive approach to understanding mergers and cooperation across exchanges, but their study was focused on the factors associated with consolidation efforts. A separate volume of papers has focused on the motives as well as on the consequences of cross-border listings and cross-listed stocks (Blass & Yafeh, 2001; Chaplinsky & Ramchand, 2000; Foerster & Karolyi, 1998; Karolyi, 1998; Pagano, Röell, & Zechner, 2003). None of these papers, however, deals with issues associated with networks or implicit mergers. In this paper, we attempt to

[1] A definition also used by Di Noia (2001) and Domowitz (1995) for equity and derivative markets, respectively.

[2] An additional example is the emergence of network externalities especially in the United States, where there has been a huge invasion of new equity routing/matching/trading systems, for example, Instinet, POSIT, AZ, Attain, etc. These systems have gained increasing volume, especially in stocks listed on NASDAQ as well as many NYSE-listed stocks. This situation has opened increased pressure and possibilities for exchanges to cooperate and compete for market share.