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Stock exchange governance and market quality

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Abstract

We show that organization structure of a stock exchange matters by utilizing the unique setting prevailing in India. India has two major stock markets, the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). These two exchanges adopt similar trading systems, trade essentially identical stocks, and follow the same trading hours. However, these exchanges have different organizational structures: BSE is mutualized whereas NSE is demutualized. Using the Hasbrouck [Review of Financial Studies 6 (1993) 191] measure of market quality we show that NSE provides a better quality market than BSE. This result is consistent with the work of Domowitz and Steil [Brookings–Wharton Papers on Financial Services, 1999], who proposed that demutualized exchanges are superior to mutualized in governance.

JEL classification: G32; G34; G14; G15
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1. Introduction

In sharp contrast to the plethora of studies that examined the impact of corporate governance provisions adopted by manufacturing and service firms, [1] there has

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[1] Gompers et al. (2001), in a recent study, find a striking relationship between corporate governance and stock returns. In their paper, they also conclude that firm value is highly correlated with a "Governance Index" that they develop.

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been little research attention devoted to governance of stock exchanges. A notable exception is recent work by Domowitz and Steil (1999), who examine interrelationships between stock exchange automation, governance, and quality of markets. [2] Traditionally, stock exchanges have been organized as non-profit, mutual/membership associations. A recent trend has been conversion of mutualized exchanges into publicly owned corporations, which are themselves listed and traded on a stock exchange. Domowitz and Steil (1999) list several benefits of demutualized as compared to mutualized stock exchanges. The primary driver for such benefits is the favorable governance structure associated with demutualized exchanges. Domowitz and Steil (1999) argue that members of mutualized stock exchanges have incentives to oppose innovations even if they increase the exchange's value. Since traditional stock exchanges are mostly regional monopolies, they could, in the extreme case, even oppose enhancements to quality of services they provide if such improvements are thought to diminish the welfare of the respective exchange members.

One important implication of the Domowitz and Steil (1999) argument is that demutualized stock exchanges should provide a better quality market than mutualized ones. For expositional convenience, we refer to this implication as the "Domowitz and Steil Proposition". Our paper's primary focus is to examine the Domowitz and Steil Proposition using data from two competing stock exchanges in India, which differ in their governance structure – namely, the Bombay Stock Exchange and the National Stock Exchange. Direct comparisons of market quality in the two stock exchanges are facilitated by the simultaneous trading of at least 40 major stocks on both exchanges, with both utilizing similar trading systems. While prior studies have compared the quality of stock markets with different trading systems, reliable comparisons are, in fact, difficult to achieve. [3] There exist two counterexamples to the proposition that *good governance results in market dominance*. Instinet and Tradepoint, despite being organized as for-profit firms, failed to capture significant market share from the floor-based NYSE and London Stock Exchange, respectively. [4] Given evidence suggesting that incumbency places entry barriers to potential entrants, the importance of stock exchange governance is an empirical issue.

Our study makes unique contributions to the literature. First, unlike previous studies to date, using transaction cost as the proxy for market quality, we compare the quality of two stock exchanges, which are similar in most respects except for their governance structure. Second, since our study is conducted in an emerging market

[2] Other recent papers that examine stock exchange governance include DiNoia (1999) and Bradley (2002).

[3] Prior studies have compared quality of different markets by examining measures of liquidity and execution costs of comparable stocks. In such studies, one cannot be certain that firm-specific characteristics are not, in fact, driving the observed results. See, for instance, Affleck-Graves et al. (1994), Huang and Stoll (1996b), and Bessembinder and Kaufman (1997).

[4] We wish to thank our discussant, Jim Angel, for pointing out this counterexample.