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The determinants of foreign trading volume of stocks listed in multiple markets

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ABSTRACT

We examine the determinants of the foreign trading volume of European stocks listed in multiple markets. The results suggest that stocks that cross-list in foreign markets that are larger and more liquid than their home markets, and stocks for which foreign investors acquire information at a lower cost, experience higher volumes of trade in foreign markets. Stocks that are cross-listed in the US are more attractive to foreign traders than those cross-listed in European markets. Differences in motives to trade in American vs. European markets are also uncovered. Among the fundamental motives to trade, diversification benefit and stock risk are more important for investors trading in American markets while the difference in trading costs is more vital for investors in European markets. Among the informational motives to trade, the firm's presence in foreign product markets and the foreign information factor are significant determinants of trading in American markets but not in European markets.

1. Introduction

Extant literature shows that cross-listing enhances firm value but the source of such increment remains elusive.[1] Corporate managers often suggest that the increase in stocks' liquidity is one of

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[1] See Gagnon and Karolyi (2010) for a comprehensive review of the literature in the field. Also see Siegel (2005) and Karolyi (2012) for a debate on the possible sources of value enhancement through cross-listing.

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the main sources of value creation through cross-listing (Bancel & Mittoo, 2001) implying that multi-market trading enhances the trading volume. Consistent with this view, Foerster and Karolyi (1998) report that relative to the trading before cross-listing, both the number and value of stocks traded increase substantially after cross-listing, largely due to additional trading in the foreign market.[2] Baruch, Karolyi, and Lemmon (2007) and Halling, Pagano, Randl, and Zechner (2008), however, show evidence of cross-sectional variations in foreign trading activities of cross-listed stocks. In addition, it is also possible that some stocks trade more in a particular foreign market than in other markets due to some stock and/or market specific factors; identifying such factors is the primary objective of this paper.[3]

Understanding factors that affect the level of foreign trading activity of cross-listed stocks in various foreign markets is important for corporate managers, stock exchange regulators and investors. For corporate managers, it helps to identify the characteristics of a foreign stock exchange that may be suitable for cross-listing of their stocks. An active trading of stocks in a foreign market reflects the success of the cross-listing decision as it enhances the liquidity of the stocks in the foreign market, leading to an increase in the firm's ability to raise capital and a widening in its shareholders' base. This, in turn, helps in increasing the value of the firm through reduced cost of capital. In spite of such clear importance, the existing literature says very little, if anything, about the determinants of the location of the foreign trading volume of European stocks that are listed in multiple stock exchanges around the world. From the perspective of the regulators and decision makers of stock exchanges, understanding the factors that affect the distribution of foreign trading volume is important because attracting foreign companies to list and investors to trade in their markets are closely related to the survival of a stock exchange. In recent years, stock exchanges have been exposed to an unprecedented level of competition. Owing to significant technological and organizational changes, a stock exchange's competitiveness against its industry peers depends on its ability to attract order flows and provide liquidity to investors (Aggarwal, 2002).[4] When they become aware of the preferences of potential cross-listing firms and investors, stock market regulators can set up provisions that are attractive to their clients – corporations as well as investors. Finally, for investors, especially for the arbitrageurs trading in multiple exchanges, knowing how trading volume is apportioned across markets is vital since stocks' liquidity may influence the profitability of their trading strategies mainly through transaction and inventory carrying costs.

This study provides empirical evidence on the determinants of the distribution of foreign trading volume, as measured by the foreign trading volume share, in multi-market trading environments and whether these determinants vary across foreign markets. Based on prior theories on the determinants of trading volume (e.g. Huddart, Hughes, & Brunnermeier, 1999; Pagano, 1989), we relate the foreign trading volume share to a number of foreign/home market specific and firm characteristics that represent fundamental and informational motives of trading.

The findings reveal the following patterns. First, on average, a foreign stock exchange attracts 11.4% of trading volume of a cross-listed stock and this portion is significantly higher for American host markets compared to European host markets (19.2% vs. 5.8%). Second, the distribution of foreign trading volume of cross-listed stocks is positively affected by fundamental motives to trade (such as greater market size and market liquidity of the foreign host market relative to the stock's home market and stock risk) as well as informational motives to trade (such as internationally recognized accounting standards used by the cross-listed firm and stock visibility to foreign investors measured by the duration of listing on the foreign host market). The results also show a negative effect of geographic distance between the home and foreign host markets and the intensity of financial analysts' coverage on the foreign trading volume share.

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[2] More broadly, confirming the importance of stock liquidity as a primary source of cross-listing benefit, the global trading volume of foreign listed stocks reached 175 billion depositary receipts (DRs) with trading value exceeding $3.8 trillion in 2011 (Bank of New York, 2011).

[3] An equally important issue that deserves a separate study could be which foreign market can enhance the liquidity of stocks of firms with what characteristics.

[4] For anecdotal evidence on the importance of trading volume for stock exchanges' survival, see "Lack of volume brings end to financial chapter", The Boston Globe, (October 3, 2007).