

Foreign Capital and Stock Return Volatility: An Investigation on Borsa Istanbul

Yılmaz YILDIZ

Hacettepe University

Faculty of Economics and Administrative Sciences

Department of Business Administration, Ankara, Turkey

orcid.org/0000-0003-4503-8283

yilmazyildiz@hacettepe.edu.tr

Extensive Summary

The impact of foreign capital on local economies, markets and firms has gained significant attention for over the years. One of the potential effect of foreign capital on financial markets and firms is related to the riskiness of the stock markets and volatility of the firm-level stock returns. The relationship between foreign capital and risk can be investigated under two different aspects. First, international investments enable investors to diversify their investment risks and gain higher returns with less risk due to risk sharing between investors (Bakaert and Harvey, 1997; Gupta and Yuan, 2009; Sorensen et al., 2007). Opponents of this argument argue that international capital flows increase the risk exposure of the domestic markets since foreign capital can easily leave the home country particularly during the financial crisis periods which in turn deepen the negative impacts of the crisis (Bae et al., 2004). Second, not only investors but also home countries and firms are also affected by transactions of the foreign investors. In other words, growing body of research in the prior literature investigate the impact of foreign investments on firm-level volatility. However, there is no consensus on the impact of foreign capital on the riskiness of the firms.

The main of this study is to investigate the relationship between firm-level foreign ownership and stock return volatility. Moreover, different from the prior research we also disaggregate the foreign investors as foreign institutions, foreign funds and foreign corporate investors and observe the relationship between their ownership level and stock return volatility.

Our sample includes the 192 non-financial firms listed in Borsa Istanbul and 1828 observations from 2006 to 2015. We obtained the foreign ownership data from the Central Securities Depository of Turkey. Other firm-level data including stock prices are obtained from the Datastream.

Following prior research, we use two different proxies for the stock return volatility. Our first proxy is measured as the standard deviation of the daily stock returns (total volatility). Our second proxy is the firm-specific stock return volatility

(residual volatility) which is measured by taking the standard deviation of the residuals which are estimated from the market model using daily returns of stocks and the market benchmark. We use BIST100 index as our benchmark. Our main variables of interest are the total foreign ownership level (capital held by total foreign investors divided by firm-level float-based market capitalization), foreign institutional ownership level (capital held by foreign institutional investors divided by firm-level float-based market capitalization), foreign funds ownership level (capital held by foreign funds divided by firm-level float-based market capitalization) and foreign corporate ownership level (capital held by foreign corporate investors divided by firm-level float-based market capitalization). Other than foreign ownership variables, we also include size (logarithm of total assets), leverage (total debt divided by total assets), market-to-book ratio (market value divided by book value) and trading volume (average daily trading volume in a given year divided by the common shares outstanding) as control variables. It should be noted that we used one year lag of all independent variables to avoid endogeneity. We also include year and firm dummies to control for the year and firm fixed effects. To avoid any heterogeneity problems, we clustered standard errors in all of the regression models.

Our findings suggest that there is a negative relationship between ownership of foreign funds and our two volatility measures. In other words, any increase in the ownership of foreign funds decrease the stock return volatility. On the other hand, we do not find any impact of total foreign ownership and foreign corporate ownership on the firm-level stock volatility. These findings support the argument that foreign funds and foreign corporations have different motives and investments strategies and as a consequence their impact on the stock prices are different. In other words, ownership of foreign funds decreases the volatility of stock returns whereas ownership of foreign corporate investors does not have any impact on the stock return volatility.

Considering the control variables, we find significant negative relationship between size and stock return volatility which suggests that large firms experience lower volatility in stock returns. Positive coefficient of leverage indicates that any increase in the debt level associate with an increase in the volatility. These results are in line with the prior literature. Moreover, we find significant negative relationship between trading volume and residual volatility which indicates that firms with high trading volume experience low level of volatility in stock prices. Finally, we do not find any impact of market-to-book ratio on the stock return volatility.

Findings of this study is important for at least two reasons. First, we provide direct evidence of the relationship between firm-level foreign capital and stock return volatility in Turkey which is a neglected issue in the prior literature. Second, by disaggregating the foreign investors as foreign institutions, foreign funds and foreign corporations we are able to observe how different types of foreign investors have an impact on the stock price movements.