Executive Summary

The effect of firm internationalization, market development, and Financial crisis on capital structure. Evidence from Western European and Eastern European firms

University of Groningen
Faculty of economics and business
Masters Finance

Student: Emmanuel Vuyof Atsimbom
S3850838

Supervisor: Dr. Swarnodeep Homroy
The accession of Eastern Europe and Western Europe follows a recent trend of integration between developing countries (Eastern European countries) and Developed countries (Western European countries). Despite this accession, Eastern European still experiences differences in legal, political, and financial institutions when compared with western Europe. As a result of variations in these regional institutional differences, firms in Eastern Europe and Western Europe experience differences in the leverage choices. Firm internationalization allows for the possibility to compare the leverage of Eastern European firms and Western European (WE) Firms. Through the accession, Eastern European firms can exploit the institutional opportunities of Western European firms as the Eastern European firms become exposed to the same quality of financing that firms in developed countries are exposed to. Internationalization can be considered from two points of view. On the one hand, when firms in countries based on the less stable economies internationalize to countries based on more stable economies, they are exposed to lesser risk. On the other hand, when firms based in more stable countries internationalize into less stable economies, there is a higher tendency to increase the risk of international firms (Lee and Kwok, 1986). Extant findings on the effect of firm internationalization on leverage contradict one another. The period that the sample of this study covers offers opportunities to look at the effect of the financial crisis on the capital structure of EU firms. The European Union Financial markets are well integrated with financial markets in the United States (U.S). This connection enables the U.S credit crisis to spread across Europe in the form of the European sovereign crisis. The sovereign crisis created liquidity uncertainty that is believed to have reduced the availability of leverage for EU firms.

The leverage of Eastern European firms is believed to quickly adjust to that of western European firms because, during the accession period that lasted between 1998 and 2004, the EU was implementing its legal, political and financial institutional characteristics in Eastern Europe. Firms in Eastern Europe were already adjusting to these changes before those countries officially joint the EU. However, this paper expects the differences in capital structure because despite joining the EU, Eastern Europe is still lagging in its effort to fully implement the institutional characteristics that the region is adopting from the EU.

The EU is suitable for this analysis because the developing and the developed countries share the same economic market region. The effect of differences in the institutions on the leverage of firms and the effect of the crisis can be captured and comparisons can be made on the leverage between developing country firms and developed country firms. Eastern Europe is characterized by less developed and sophisticated markets and inefficient capital markets that engage in m debt financing than equity financing. These result in high levels of information asymmetry and high cost of obtaining external financing. The purpose of this study is to provide evidence that firms in the same economic market environment with differences in their institutional development have different leverage. Also, this paper adds to the existing literature in this area of study by looking at the effect of both firm
internationalization and the financial crisis on the capital structure of EU firms. This paper therefore hypothesis as follows: (1) whether firm internationalization results in a positive change in firms’ leverage. (2) Whether institutional factors leading up to the level of regional development results in the difference in firms’ leverage. (3) whether there is a difference in capital structure between Eastern European multinational firms and Eastern European domestic firms (5) Whether the credit crisis result in the change of capital structure for EU firms.

The sample for this analysis consists of 21282 firm-year observations, collected between 2004-2017 from the countries that constitute the EU in May 2004. Linear regression methods are implemented to analyze the leverage dependent variables and their relationship with independent variables. The variables that proxy regional institutional development and Eastern European multinational firms are time-invariant dependent variables. Because these variables are very important for this analysis, only the random effect model can be implemented to capture the relationship between these independent variables and the leverage ratios. The downside here is that the random effect does not capture the presence of serial correlation. Thus, the application of GLS regression methods. This way serial autocorrelation is accounted for. However, the problem of unobserved effect remains. Also, the independent variable necessary to measure the effect of the financial crisis is not time-variant, implying fixed-effects models can be implemented. Because this is the key variable necessary for this hypothesis, this paper implements the use of the time fixed effect regression model. The Hausman test is rejected at the 1% level, indicating that the fixed effect model is suitable to analyze the hypothesis involving the crisis independent variables. A within transformation time fixed effect model is implemented, which accounts for unobserved effects. The time fixed effect also accounts for the presence of serial autocorrelation in the regression model.

This paper finds contradicting results in the relationship between firm internationalization and capital structure. EU firms show inconclusive results in their relationship with leverage, but the subsample of EE firms shows a positive result between firm internationalization and capital structure. This paper further shows regional institutional differences result in differences in firms leverage as WE firm show better own average more leverage than their eastern European counterparts. Also, Eastern European multinational firms show more leverage when compared with their domestic counterparts. Finally, this paper finds mixed results on EU firms' leverage as a result of the financial crisis as total debts increased after the financial crisis while long term debts increased after the financial crisis.

This paper recommends accounting for heterogeneity between countries in the variable by including more of the firms’ home country (dummy) variables. This improves the quality of the results. To further improve the results of future research in this area, this paper recommends including eastern European countries that joint the EU after 2004 in the sample size.