Mgr Olga Krzeczewska
Department of Corporate Finance
Faculty of Economics and Sociology
University of Lodz
Supervisor: dr hab. Radosław Pastusiak, prof. UŁ
Auxiliary supervisor: dr Michał Soliwoda

Summary of doctoral thesis

Topic: The significance of bankruptcy information for stock returns in selected sectors

The doctoral dissertation is devoted to the impact of bankruptcy information on stock returns in selected sectors. The academic literature indicates that a given event may affect the stock returns of announcing and non-announcing firms in the same direction (contagion effect) or the opposite direction (competitive effect). Most of the studies on information transfer on the stock market were conducted on the American stock market and concerned bankruptcy aimed at reorganization, not liquidation of the company. In such an instance, the dominance of the contagion effect is indicated. However, some academic literature indicates that investors' reactions may differ when bankruptcy leads to liquidation.

In Poland, the bankruptcy system has undergone many changes in recent years. In 2016 the restructuring law was separated from the bankruptcy law. The purpose of separating the bankruptcy and restructuring proceedings was, among others, to avoid stigmatization of enterprises that have a chance to return to the market. This raises a question on the full meaning of the information provided to investors at the time of bankruptcy filing, in the conditions of the Polish legal system.

Therefore, **the main objective** of the doctoral dissertation is to assess the significance of bankruptcy filing announcement for stock returns in sectors, in which the bankruptcy filing occurred, illustrated by the example of the Polish stock market in a short period. It is also worth noticing, that there is also presented a set of auxiliary aims.

The analysis of the literature allowed the author of the dissertation to formulate research hypotheses. Three main hypotheses were put forward (H1, H2, H3) and, additionally, two auxiliary hypotheses were stated for the H2 hypothesis (H2.1 and H2.2).

H1: Bankruptcy filing announcements made by stock-listed companies induce abnormal returns exhibited by announcing firms.

H2: Bankruptcy filing announcements made by stock-listed companies induce abnormal returns exhibited by sectoral competitors.

> H2.1. Bankruptcy filing announcements, which are motivated by precaution, cause a predominant contagion effect for competitors.
>
> H2.2 Bankruptcy filing announcements, which are motivated by the lack of prospects for improvement, cause a predominant competitive effect for competitors.

H3: The average abnormal returns, exhibited by sectoral competitors due to the bankruptcy filing announcement, are determined by sectoral characteristics.

The analysis period covers the years 2016-2020, i.e. the period from the introduction of the Restructuring Law, which significantly changed the Polish legal system in the field of bankruptcy. Such an approach allowed the analysis to cover a relatively homogeneous period in terms of legal regime. There were identified 18 events of bankruptcy filing referring to 17 stock-listed companies on the Warsaw Stock Exchange Main Market. Moreover, 98 competing companies were selected, which operated in the same sub-sectors according to the classification of the Warsaw Stock Exchange.

The research methods used in the study are a critical review of the literature, in-depth with bibliometric analysis, event study analysis, and econometric methods aimed at developing a model showing the determinants of average abnormal returns for sectoral competitors in case of bankruptcy filing announcement.

The prepared dissertation consists of four chapters. The first chapter aims to define the meaning of bankruptcy in the context of legal and economic conditions in Poland. Definition problems related to the phenomenon of cessation of activity and extinction of company were presented. There were indicated the fundamental regulations and changes in the Polish bankruptcy system, as well as the economic aspects of corporate bankruptcy, such as the place of bankruptcy in the life cycle of the enterprise, or the problem of insolvency and lack of liquidity. The problem of bankruptcy costs was also pointed out.

The purpose of the second chapter was to determine the importance of sectoral characteristics for the functioning of enterprises in terms of the analyzed phenomenon of bankruptcy. The starting point was the issue of delimiting sector boundaries. Various types of interactions among competitors and their changes related to the sector's lifecycle were pointed out. The basic features that are related to the intensity of competition and the profitability of the sector were described. Moreover, there were identified 18 events of bankruptcy filings referring to companies listed on the Warsaw Stock Exchange Main Market in the period between 2016 and 2020. The situation of sectors in which the bankruptcy filings occurred was compared to the situation of the macro-sector, as the benchmark, as well as the changing economic situation.

The third chapter is devoted to the impact of bankruptcy filing information on companies that are not directly affected by bankruptcy. Its' aim is to identify determinants that influence market reaction toward non-announcing firms. The channels of bankruptcy spillover were discussed. The problem of information efficiency was also addressed and the literature on the effects induced by bankruptcy filing was reviewed. There are identified variables that may determine the reaction of investors toward sectoral competitors of bankrupt or distressed enterprises.

The fourth chapter is of methodological and empirical character. It presents the methodology used in research on investors' reactions to various events, which was later implemented in the study, as well as it presents the results of the empirical analyzes. The cross-sectional event study analysis was conducted, and an econometric model showing the determinants of average abnormal returns for competitors in selected sectors was presented.

The results show that the announcing firms experienced negative market valuation due to bankruptcy filing announcements in the days surrounding the event, with this reaction being the strongest on the day of the event. The analysis of the stock exchange announcements showed that a part of the companies filed not only for bankruptcy but also for restructuring. It was assumed that these companies aimed to restructure, not liquidate the business[1] and the reason for bankruptcy filing was a precaution. A separate analysis for these companies showed that the effect on their

[1] When the company files for both, restructuring and bankruptcy, the restructuring application is examined first by the court.

market valuation is weaker and more short-lived than on the rest of the companies (defined in the work as companies filing for bankruptcy due to the lack of prospects for improvement).

The effect of the event on non-announcing companies was short-lived (concerning narrowed ranges of the event window). Averaged results for the whole sample showed the positive and delayed externalities exhibited by the competitors. Further analysis showed that the investors' reaction differs depending on the motive for the bankruptcy filing. When the bankruptcy filing was motivated by the lack of prospects for improvement, the non-announcing firms exhibited **positive** effects on their market valuation, which is evidence of the predominance of **the competitive effect**. When the reason for bankruptcy filing was a precaution, the sectoral competitors exhibited a **negative** market reaction, which is evidence of the predominance of **the contagion effect**.

In addition, the econometric model confirmed that the motive of bankruptcy filing differentiates investors' reactions, and the characteristic of the sector, that determined the value of cumulative average abnormal returns in the event window established on days 0 to 1, was the level of debt financing.

In the context of the considerations carried out, it can be concluded that the study on the contagion and competitive effects requires taking into account the regulatory and institutional conditions of economies. Even though the American market seems to be commonly considered a certain reference point, the impact of corporate bankruptcy on other markets, depending on the legal system, may be different. In addition, a seemingly identical event may evoke a different reaction in a given market, depending on the situational context or the motives behind it. The conclusions from the study may be a contribution to further research on information transfers, and above all, they may be an indication that certain events, although seemingly identical, may send a different signal to investors.

14.02.2023