THE ANALYSIS OF THE POLISH SHAREHOLDERS STRUCTURE IN REGARD TO THE PROCESS OF TAKING OVER COMPANIES.

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Abstract

Nowadays, taking over comapnies are becoming increasingly common in Europe. Of course, one cannot buy every number of shares without any limitations. Legalities are conforming to directive of the European Parliament 2004/25/WE. In Poland, the public offering act from 2005 is in force. It activates a great discussions. The rules are criticized inter alia in view of a fixed threshold of mandatory bid at the level of 66%. . Ministry of Finance has been working on the amendment of the Act on a public offer. The draft amendment of the Act in Poland is similar to the law of many Member States. However, there are many negative opinions of it in Poland. One should consider that there are usually widely dispersed shareholders in countries with the threshold at the level of one – third. It seems to be not so obvious in Poland.

In this work the structure of shareholders in Poland is examined. The statistical tools are used to describe it. Chosen sectors are compared. There is also a discussion about the limit of obligatory offer in view of obtained results. The solution based on the theory of games is proposed to solve the problem of the limit of obligatory offer.

Key words: shareholders, free float, takeover, power index

JEL Code: G1, G18, C71

Introduction

The history of takeovers is connected at most with American market. However, the changes proceeding in Europe have caused the increase of takeovers, especially hostile. The European Union forming process, globalization and the increase of competitiveness make the takeover bids process necessary for the companies to keep on the market. The increase of takeovers is expected in Poland as well because of falling pricing and higher rates of return for investors in comparison to West Europe or USA (Fura, 2013). There is visible considerable interest in

hostile takeovers in Poland. Big company KGHM commissioned JP Morgan to examine threats for the company due to potential "invaders" in 2013. What is more, even two years earlier, global law firm Dewey&LeBoeuf with UniCredit CAIB Poland wanted to organize the special conference for the companies connected with the possibilities of hostile takeovers on Polish Market.

Of course, it is not possible to acquire every quantities of securities by offeror (without any limits). There are legal regulations relating to takeover bids and securities sale in each Member State. They should be according to European Parliament and Council Directive 2004/25/EC of 21 April on takeover bids. The rightness and assumptions of the directive stirred up great discussion (Clarke, 2009). In Poland, the act concerning a public offer from 2005 is in force. Nowadays, the rules are criticized inter alia in view of a fixed threshold of mandatory bid at the level of 66%. Ministry of Finance has been working on the amendment of the Act on a public offer. However, the draft amendment of the Act in Poland started a great discussion. The project is similar to the law of many other Member States but met with many negative opinions in Poland (Obrycka, 2012). One should consider that there are usually widely dispersed shareholders in countries with the threshold at the level of one – third what is not so obvious in Poland .

In this work, the problem of the structure of Polish shareholders will be examined. Four sectors will be chosen and analyzed in respect of free float by statistical tools. Chosen sectors were pointed by experts as the most exposed to the risk of hostile takeovers (Fura, 2013, Piszczowska, 2009, Elżbieciak 2014). The idea how to solve the problem of threshold of mandatory bid will be shown at the end. Percentages seems to be not always proper solution because the powers of the players are, in generally, not proportional to the weights (Leech, 2013). The solution based on the theory of games (Gambarelli & Owen, 2004) will be proposed (Sroczyńska – Baron, 2013b). Banzhaf index, as a tool of cooperative games, will be pointed as the most proper one (Leech, 2002), which can be calculated by special algorithm (Levy, 2011).

The main aim of this work is to evaluate the shape of shareholders of companies traded at the stock exchange in Warsaw for chosen sectors and the project of the threshold of mandatory bid. The problem of the measurement of influences is always actual and important. Good solutions of this kind of problem in one area could help to solve similar problems in other, which the European Union meets. Good example is the rotation voting system adopted by the European Central Bank (Di Giannatale & Passarelli, 2013).

1   Legal regulations for takeover bids in Poland

Legal regulations connected with takeovers should respect European Parliament and Council Directive 2004/25/EC of 21 April on takeover bids. But the Directive only establishes a framework of general requirements which Member States are to implement through more detailed rules in accordance with national systems and cultural contexts. Till now, in Poland an offeror is obliged to keep the following legal rules applicable to the conduct of bids according to the Act of 29 July 2005 on a public offer:

- the offeror is required to make a bid of the purchase of shares representing not less than 66% of all in the offeree company when the offeror is going to hold shares representing at least 33% of them in that company,
- the offeror is required to make a bid of the purchase of all other shares of the offeree company when the offeror is going to hold shares representing at least 66% of them in that company.

The rules are criticized inter alia in view of two fixed thresholds of mandatory bids: 33% and 66%. The limit 33% often confers control in a company but it allows to launch a bid only till 66% of shares. There are fears for protection of minority shareholders – not all of holders of remaining securities are able to require the offeror to buy their securities at a fair price and to withdraw from the investment in such a situation. On the other hand, the obligation to launch a bid for all other holdings after the threshold of 66% of securities applies when the takeover is in principle conducted. The majority shareholder can stop the acquiring at the level of 65% of securities which certainly gives him the control of the offeree company without the obligation of a bid for the rest of securities. It is visible that defensive action for minority shareholders is too weak and do not satisfy the assumptions of the Directive in Poland. Although the Directive does provide for arrangements in the area of the protection of minority shareholders, it leaves it up to Member States themselves to establish the threshold of mandatory bid. Ministry of Finance has been working on the amendment of the Act on a public offer. There are still proposed two thresholds: 33% and 66% of securities for mandatory bids but for all other holdings in both cases.

1   Methodology

In this work the analysis of variance is conducted to determine if the various sample means come from a single population or populations with different means (Montgomery 2009). The assumptions are the following:

- the populations follow the normal distribution,
- the populations have equal standard deviations
- the populations are independent.

Total variation determined as the sum of the squared differences between each observation and the overall mean is broken into two components: one is due to the treatments and one is random. Treatment variation is the sum of the squared differences between each treatment mean and the grand or overall mean. The second source of variation is referred to the random component. Random variation is the sum of the squared differences between each observation and its treatment mean. The test statistic is a ratio of the two estimates of the population variance.

Barlett's test is used to check the equality of standard deviations and Shapiro – Wilk test to check the normality of distributions.

2   The researches

2.1   Data

The analysis of chosen sectors of stock exchange in Warsaw was conducted during the researches. Four sectors were chosen for examination: telecommunication, information, construction and food industry. There are said to be the most exposed to the risk of hostile takeovers. All four sectors are characterized by the biggest free – float. What is more, the companies from the telecommunication sector have worse results that the market – index WIG – telecom had the value of -14,85% for the last year (Fura, 2013). Construction industry companies were pointed by the chairman of Rothchild Poland – J. Chwedoruk in 2009. He claimed that one could expect the investors to invest in this sector because of a great differentiation of developers' situation in Poland (Piszczowska, 2009). However, next few years brought big crisis in this sector. The first quarter of 2012 ended with 60% more bankruptcies than the year before (report of Euler Hermes). WIG – Construction lost more than 30% during this time. But the year 2014 is the beginning of a new seven – year Union budget with a new part for construction industry, for example road and rail investments will get 27,5mld euro from Operational Program Infrastructure and Environment (Elżbieciak, 2014). It may cause more number of takeovers in this sector. The food industry also has

difficult situation for the sake of high prices of feedstock and their fast increase in 2012 and concurrently no possibility to make consumers share the burden of cost because of discount shops. So this sector is also indicated to be exposed to takeovers (Drewnowska, 2013).

There are 6 companies in telecommunication sector, 25 companies of information sector, 22 companies of construction sector and 26 companies of food industry traded at the stock exchange in Warsaw. There are usually four main shareholders for telecommunication and information sectors and three main shareholders for construction and food industry sectors. About 42% of companies have majority shareholders (shareholder who possesses more than 50% of shares). But most of them are really exposed to hostile takeovers because of minority control. The level of free float of companies from construction industry sector is presented on Fig. 1.
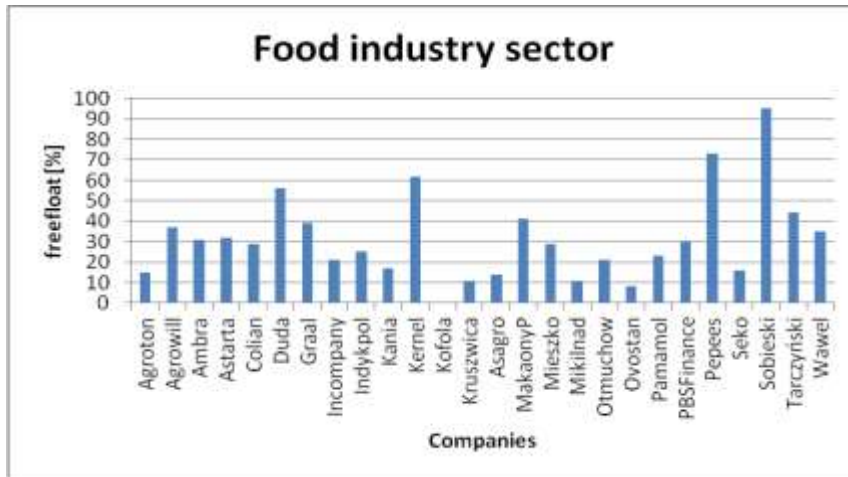
Fig. 1: **Free float of construction industry sector Warsaw Stock Exchange 04.2014 in [%]**

Source: own work based on http://www.stockwatch.pl
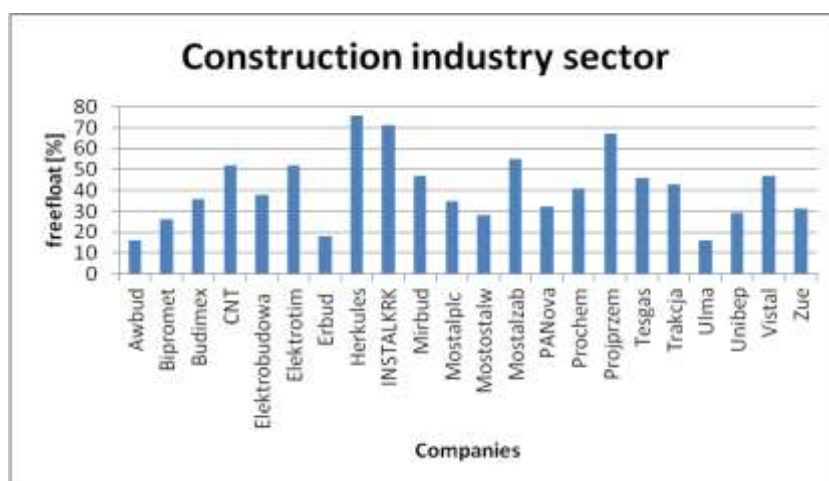
The level of free float of companies from food industry sector is presented on Fig. 2.

Fig. 2: **Free float of food industry sector Warsaw Stock Exchange 04.2014 in [%]**

Source: own work based on http://www.stockwatch.pl

The level of free float of companies from telecommunication sector is presented on Fig. 3.
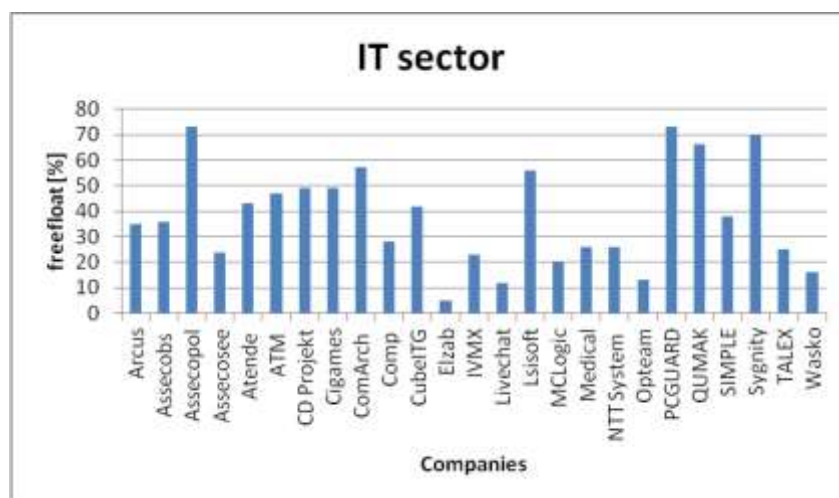
Fig. 3: **Free float of telecommunication sector Warsaw Stock Exchange 04.2014 in [%]**

Source: own work based on http://www.stockwatch.pl
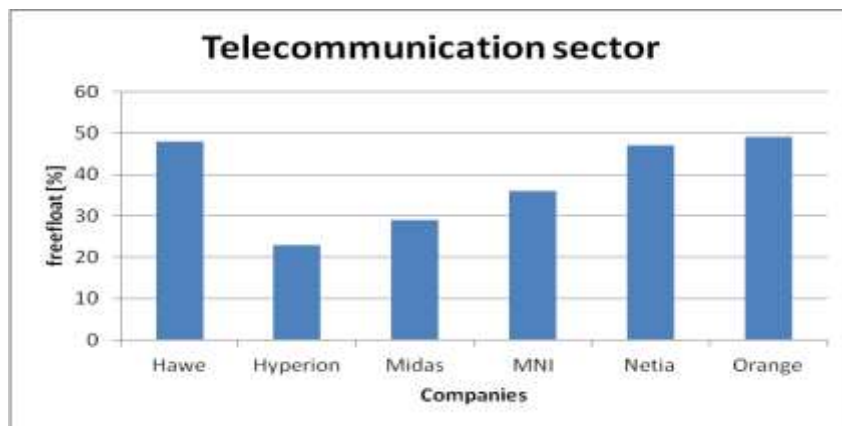
The level of free float of companies from IT sector is presented on Fig. 4.

Fig. 4: **Free float of IT sector Warsaw Stock Exchange 04.2014 in [%]**

Source: own work based on http://www.stockwatch.pl

2.2 Run of researches

First, the assumptions were checked. Test Shapiro – Wilk was used to verify the hypothesis if all sectors followed the normal distribution. The null and alternative hypothesis were expressed as follows for all four sectors:

H_0: $F(x) = F_N(x)$

H_1: $F(x) \neq F_N(x)$

The value 0,01 was taken as the level of significance. The appropriate test statistics for construction industry sector was equal $W = 0,961$. The critical value from Shapiro – Wilk tables is $W^* = 0,878$. So there is no reason to reject the null hipothesis. The appropriate test statistics for food industry sector was equal $W = 0,904$. The critical value from Shapiro – Wilk tables is $W^* = 0,891$. So there is no reason to reject the null hipothesis. The appropriate test statistics for telecommunication sector was equal $W = 0,869$. The critical value from Shapiro – Wilk tables is $W^* = 0,713$. So there is no reason to reject the null hipothesis. The appropriate test statistics for IT industry sector was equal $W = 0,953$. The critical value from Shapiro – Wilk tables is $W^* = 0,888$. So there is no reason to reject the null hipothesis. Freefloat of all sectors followed the normal distribution.

Next, Barlett's test was used to check if all four sectors had equal standard deviations. The null and alternative hypothesis were expressed as follows:

H_0: $\sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \sigma_4^2$

H_1: *the variations are not all equal*

The appropriate test statistics was equal $\chi^2 = 3{,}43$. The value 0,05 was taken as the level of significance. The critical value from χ^2 tables is $\chi_{0,05}^2 = 7{,}815$ for 3 degrees of freedom. So there is no reason to reject the null hipothesis. The freefloat of all four sectors had equal standard deviations.

Then the analysis of variance was conducted. The null and alternative hypothesis were expressed as follows:

H_0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$

H_1: *the means are not all equal*

The table of the analysis of variance was computed and the results are presented in Table 1.

Table 1: **The table of the analysis of variance for freefloat at Warsaw Stock Exchange**

Source of variation	Sum of squares	Degrees of freedom	Mean square	F
treatments	1222,815	3	407,6	1,12
error	27407,06	75	365,43	

Source: own work

The value 0,05 was selected as the significance level. The degrees of freedom in the numerator are 3, and the degrees of freedom in the denominator are 75. The critical value for the F – statistic is 2,74 so there is no reason to reject the null hipothesis. It means that the levels of freefloat for all four sectors come from a single population. The shape of shareholders in all companies from four examined sectors are similar. The overall mean of free float is rather low - 36,7%. It confirms the anxiety that the amendment of the Act on a public offer in Poland should be changed. Threshold of 33% would not rather serve as a good tool in Poland. The companies are characterized by low dispersion of shareholder structure. The level of free float in companies which are the most exposed to the risk of hostile takeovers is not enough for such a solution. What is more, the shape of shareholders structure in all four examined sectors are similar so good solution in one of them should work in others. In previous work (Sroczyńska – Baron, 2011) there was presented the solution based on the

theory of cooperative games for chosen sector. The theory of games is widely practiced in different problems connected with stock exchange (Sroczyńska – Baron, 2013a), it seems to be a good addendum for traditional methods (Węgrzyn 2013a,b), it helps players to act in conflict situations and when there are problems in communication and common acting. It is alternative method such a for example gray systems (Barczak 2013a, b). So using cooperative games it is proposed to calculate just Banzhaf index instead of percentages as the threshold. It is universal tool analyzing the structure of the power, insensitive to shareholder structure. Fixing one level of this index as the threshold of obligatory bid would standardize the situations of companies – offerors at the moment of excess of it and better protect the interests of small shareholders who are the most exposed to the risk of hostile takeovers. And on the other hand, the offerors would not be required to make an obligatory offer without the position of dominator.

Conclusion

In his work, there are examined four sectors of Warsaw Stock Exchange which are the most exposed to the risk of hostile takeovers. Free float is compared and evaluated. The participation of small shareholders is rather low and the structure of all four sectors is similar. There are a few significant players (3 or 4) who own most shares and slight free float.

The researches showed that the threshold of 33% for obligatory offer would not work properly in Poland. This is neither universal nor effective limit in many situations. One should consider that there are not widely dispersed shareholders, what is visible in countries with the threshold at the level of one – third.

To conclude the discussion, the threshold of 33% seems to be proper in countries, where the companies with dispersion of shareholder structure are predominate. However, in countries – for example Poland - with opposed tendency, the solution should be different. It would be better to use just Banzhaf index instead of percentages.

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