Ownership and control of Polish listed companies

Initial results

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Abstract

Ownership structure remains the crucial company's characteristics, belongs to the most important governance mechanisms and delivers fundamental legacy for oversight and control. The comparative analysis delivers insights on the degree of ownership concentration, shareholders' identity and mechanisms for separation of control and cash flow rights providing understanding for the patterns of ownership and control worldwide.

This paper focuses on the characteristics of ownership and control in Poland. The paper attempts to fill the gap in corporate governance literature since the research on the ownership structure of Polish companies is definitely insufficient, while the deeper analysis on the patterns of control and ownership remains extremely scarce. The paper presents the initial results of the empirical studies conducted on the representative sample of 100 companies listed on the Warsaw Stock Exchange.

Key words: ownership and control, corporate governance, Poland

Introduction

Ownership structure remains the crucial company's characteristics, belongs to the most important governance mechanisms, and delivers fundamental legacy for oversight and control (Fama and Jensen, 1983; Shleifer and Vishny, 1997). The studies on ownership structure patterns, dynamics and characteristics help understand the directions of strategic development of companies (Demsetz and Keith, 1985). Ownership structure appears to be amongst the crucial determinants for management, corporate strategy, the compliance with corporate governance standards and best practice in the area of board work, investor relations and

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transparency. The understanding of the relationships between the ownership structure and corporate governance and the importance of impact of different shareholders upon the quality of corporate governance reveal to be of crucial importance for the functioning of any public listed company (Allen and Gale, 2000). Particularly, the understanding of these relationships proves to be important for transition and emerging markets where the ownership and control reveals dynamic changes and significant challenges (Kostyuk and Koverga, 2007). Various ownership patters may be perceived as stimulators or inhibitors for company and economy development.

The growing interest in the comparative analysis delivers insights into the studies of different ownership types and forms, shareholder identities and the logic behind their operations. Interestingly, the literature dominated by the research on the dispersed ownership and Anglo-Saxon economies placed the ownership structure studies in the framework of principal agent theory and conflicts between executives and shareholders (Monks and Minow, 2004). Moreover, the largest companies in other countries also depict such ownership pattern and face – in the language of agency theory – the problems of hidden action, hidden information and hidden intention (Fama and Jensen, 1983; Shleifer and Vishny, 1997). Further comparative research indicate however the concentrated ownership as the dominant pattern for control. The concentrated ownership is revealed in continental Europe, Latin America, Australia, Asia (Allen and Gale, 2000; Morck, 2004; Morck, 2009). Moreover, in many companies concentrated ownership is not only the result of the simple majority stake held by the dominant shareholder but is tied to the control exerted via preferred shares and pyramidal structures which allow to lower the capital involvement (Zattonii, 1999; Almeida and Wolfenzon, 2005; Morck, 2009).

This paper focuses on the characteristics of ownership and control observed in Polish listed companies as the research sample combines the state owned enterprises, companies privatized to domestic and foreign investors, firms set up after 1989 by a founder/ entrepreneur and finally companies controlled by financial institutions. The originality of the paper is rooted in the potential for understanding the emerging patterns of ownership and control with the reference to companies of different origins. Research on ownership structure of Polish companies is definitely insufficient, while the deeper analysis on the patterns of control and ownership remains extremely scarce. Therefore, the contribution of the paper refers to the attempt of filling the gap of the ownership and control pattern emerging and developing in post socialist and post transition economy under the circumstances of scarcity of data bases and insufficient transparency of companies' ownership. The paper presents the initial results of the empirical studies conducted based on the hand collected data.

The paper is organized as follows. The first section provides the literature review on ownership and control referring to different ownership types and forms. The characteristics of the ownership structure of Polish companies is outlined in the second section. The third section delivers the initial results and discussion on the analysis of the ownership and control patterns identified in public companies listed on the Warsaw Stock Exchange. The final remarks are presented in the conclusion section.

1. Ownership and control patterns

The ownership and control patterns having been researched for over a century belong to the most important dimensions of company characteristics and determine the fundamental elements of corporate governance. The analyses on ownership structure distinguish its two types: dispersed ownership and concentrated ownership. Additionally, for the purpose of studies the identify of shareholders is analyzed identifying individual and institutional shareholders, state ownership, managerial ownership as well as the presence of financial and non financial institutions in the ownership structure (Shleifer and Vishny, 1997; Faccio and Lasfer, 2000). The analysis of ownership structure allows to relate the specific ownership patterns and characteristics to company behavior, strategy and performance (Demsetz and Villalonga, 2001). For instance dispersed ownership offers a lot of opportunities for raising significant funds and risk diversification, it however leads to increased principal-agent conflicts as the residual rights of control are in the hands of executives (Monks and Minow, 2004). Shareholders face the limited possibility to monitor and control executives and experience the problems of hidden action, hidden information and hidden intention (Jensen and Meckling, 1976; Shleifer and Vishny, 1997). Dispersed ownership also is characterized with the free rider problem as the holders of small stakes are not interested in collecting and processing information for the evaluation of the executives (Grossman and Hart, 1988). They remain passive, follow the larger shareholder and usually vote by feet not getting involved in the supervision and governance (Monks and Minow, 2004). The concentrated ownership is seen as the solution to agency conflicts and free rider problem (Jensen and Meckling, 1976; Shleifer and Vishny, 1997) and is believed to lead to higher profitability when the dominating owners are active (Neun, Rexford and Santerre, 1986; Holderness and Sheehan, 1988). The ownership concentration proves to be an important monitoring mechanism being the second best solution when market/ external mechanisms are not working well (Morck and Steier, 2005). The majority shareholder is able to internalize the costs of collecting information and to exert effective control over management as they posses significant stakes and crucial know how. The active engagement in monitoring and control appears to be an efficient strategy for majority shareholders. Some doubts refer however to the threat of the majority shareholder abusing their position via representatives on the board favoring them at the cost of minority investors (Fama and Jensen, 1983). The dominant shareholders may expropriate minority shareholders through a tunneling or compensation policy (Stulz, 1988), blocking dividend payout or limited access to information.

There are two modes of ownership concentration. First is the case of the concentration of shares in the case of one share one vote rule. In the second case the concentration of votes is carried through the preferred stock (Halpern, 2000) what is popular in e.g. German corporations and leads to pyramidal structures (Almeida and Wolfenzon, 2005; Morck and Steier, 2005). In the second case, there are no ownership barriers but control barriers (Prevezer and Ricketts, 1994). The deviation from one share one vote rule makes sense if private benefits of control are high which happens in countries with worse shareholder protection (Grossman and Hart, 1988; Harris and Raviv, 1988). Grossman and Hart (1988) built a model that shows that one share one vote and the simple majority rule are optimal only when the rival has no private benefits of control. When both candidates can have private benefits, the lack of the one share – one vote rule and the super majority rules can be optimal.

The degree of ownership concentration is closely related to the use of mechanisms of separation control and cash flow rights (Bennedsen and Nielsen, 2006). The control exerted via preferred shares and pyramidal structures which allow to lower the capital involvement (Zattonii, 1999; Almeida and Wolfenzon, 2005; Morck, 2009). As research reveals pyramids are revealed in many European countries (Bennedsen and Nielsen, 2006) such as Canada (Morck, 2004), Belgium (Renneboog, 1999), Italy (Bianchi and Bianco, 2006), France (Morck, 2004), Sweden (Holmen and Högfeldt, 2005). The pyramidal structures depicted in line with the comparative analysis of emerging markets are revealed in India (Ramachandran and Marisetty, 2009), South Korea (Kim, Youngjae, Sung, 2004; Yanagimachi, 2004), China (Lio and Sun, 2004), Thailand (Bunkanwanicha, Fan, Wiwattanakantang, 2008), Russia (Lazareva, Rachinsky, Stepanov, 2007; Radygin, 2007), Ukraine (Paskhaver and Verkhovodova, 2007), Latin American countries (mostly researched – Mexico, Brazil, Chile, Peru, Argentina, Brazil) (Rogers, Dami, Ribeiro, Sousa, 2006; Perkins and Morck, 2008). Interestingly, pyramidal structures are also to be found in developed economies.

The comparative analysis reveals that the dispersed ownership is mostly found in Anglo-Saxon economies and in the case of the largest companies worldwide. Continental European countries are characterized by significant ownership concentration (Allen and Gale, 2000) which results in the limited number of shareholders and the dominance by powerful owner over the company. A similar pattern is also depicted in companies in Latin America and Asia (Morck, 2005). The ownership concentration is connected to a different specificity of shareholder identify – families and non financial institutions play an important role in the ownership structure for continental Europe, Latin America and Asia.

With the reference to shareholder identify most studies focus on the effects of institutional and managerial ownership. The involvement of institutional investors in the ownership structure is positively correlated with corporate performance due to their skills and experience in monitoring (Brickley, Lease, Smith, 1988; McConnell and Servaes, 1990; Useem, 1996; Maug, 1998, Woidtke, 2002; Faccio and Lasfer, 2000). Managerial ownership is also believed to increase executives motivation for creating shareholder value and to improve corporate performance. Research indicates that the positive effects are noted when the manager owns a stake between 0-5% and above 25% of shares (Morck, Shleifer, Vishny, 1988). Using the literature findings on ownership structure with the reference to the degree of concentration and shareholders' identity hypothesis1 is formulated for the purpose of this paper.

<u>Hypothesis 1: The larger ownership concentration is noted in smaller companies, in pyramids, adopting one share one vote rule</u>

2. Ownership and control – the Polish case

2.1. Transition reforms and privatization schemes

The studies on ownership and control of Polish companies have been carried out for the last 23 years starting with the transition reforms and privatization schemes. There are no research conducted before 1989 since the pattern of ownership and control was exerted by the dominance of the state (via the State Treasury) and the Party (via its members appointed to serve on the executive position). The system was referred to the so called "destroyed capitalism" (Balcerowicz, 1995) as it faced the lack of private ownership and the lack of meaning of private ownership. The state control and the regime of the citizens' ownership proved to be highly inefficient in the process of rights, incentives and assets allocation. The reforms introduced in 1989 focused on the type I reforms (macroeconomic stabilization, price liberalization, the reduction of direct subsidies, the breakup of trusts, the mono-bank system) and type II reforms referring to rebuilding institutional framework, large-scale privatization, the development of a commercial banking sector and effective tax system, labor market regulations and institutions related to the social safety net and establishment and enforcement of a market-oriented legal system and accompanying institutions. These reforms appear to be crucial from the perspective of the shift in ownership and control and hence the development of corporate governance structure. The privatization programs included the so called case by case privatization understood as the sale of the state owned company to strategic (industry) investor assuring for full control in the case of the direct sale or the dominant stake in the case of companies listed on the stock exchange. Fortunately, the stakeholders' opposition delayed negotiation over the mass privatization program which to this date is viewed as the worst privatization method and which in the Polish case covered (luckily) only 512 companies (as compared to 14,000 in Russia). The popularity of management buyouts and employee stock ownership plans remained low and only a marginal number of state owned companies followed this path. The strongest impact upon the shift of ownership and control was however executed by the rise of the companies set up after 1989 and developed by the founders. The trend strengthened significantly with the economic boom noted after Poland's accession to the European Union in May 2004 supported by the start of the OTC market in 2008. The shift in ownership and control was additionally accompanied with the government determination to complete privatization process (2008-2011). According to the statistics of the Ministry of Treasury in terms of number of companies privatized of 8,453 state owned companies in 1990, 7,770 have been privatized by the end of 2011 (State Treasury, 2012a). 2,307 companies were privatized via direct privatization that appeared to be the dominant ownership transformation scheme, 1,753 companies were commertialized, 502 underwent indirect privatization, 512 were included in mass privatization program and 1,932 were covered by the liquidation procedure. However in the register as of January 1st, 2012 there were 530 state enterprises of which the state fully controls 179 (100% stake), in 47 companies the state operates as the dominant shareholder and in 156 it operates as the minority shareholder (State Treasury, 2012b).

In sum, the Polish picture on the ownership and control corresponds with the characteristics of post-transition and emerging market. Corporate governance is based upon the role of hierarchies (World Bank 2005a; World Bank 2005b). As noted by Berglöf and Claessens (2006) the crucial control role is played by large shareholders, whereas the monitoring function of external mechanisms (stock market, market for corporate control, reputation) is significantly weaker. Concentrated ownership is viewed as a result of a set of different factors such as privatization schemes (favoring strategic, industry investors), weaker investor protection (bigger stake increases safety of the investment) and the civil law tradition (Coffee, 1999). The potential of monitoring from the board remains unexplored and hindered. The board is unlikely to be influential when the controlling owner can hire and fire board members. Additionally, the quality of law enforcement depends critically on the quality of the general enforcement environment.

2.2. Ownership and control of Polish listed companies

Studies on Polish listed companies reveal the stable trend of the ownership structure over the whole period they were conducted. The shareholder structure of Polish companies shows a significant concentration of ownership characterized by the average majority shareholder stake estimated at 41% shares (Kozarzewski, 2003; Aluchna, 2007; Urbanek, 2009). The significant ownership concentration indicates that the majority of corporate governance challenges refer not to the problems of dispersed ownership and conflicts between shareholders and managers but mostly to the problems of majority shareholder policies toward minority investors (Shleifer and Vishny, 1998). The ownership structure analysis depicts a slight evolution of the identity of the dominant shareholder which results from the privatization schemes and the development of the emerging market. Not surprisingly, the strategic foreign investor appeared to be the most frequent identity Dzierżanowski and Tamowicz, 2002). Strategic foreign investors were surpassed by domestic private and domestic strategic investors in line with the economic development and surge of newly set companies controlled by the founder. The ownership structure of Polish listed companies is presented in Table 1.

Table 1: Ownership structure of Polish companies (no. of sample companies, % of sample companies)

Shareholder category	1st largest	2nd largest	3rd largest	4th largest
Executives	88 (25.1%)	49 (17.3%)	31 (15.3%)	18 (14.5%)
Supervisory board directors	39 (11.4%)	40 (14.1%)	28 (13.8%)	12 (9.7%)
Other individual	24 (7.1%)	24 (8.5%)	25 (12.3%)	13 (10.5%)
Strategic foreign inwestor	60 (17.1%)	18 (6.4%)	8 (3.9%)	5 (4.0%)
Financial foreign inwestor	6 (1.7%)	14 (4.9%)	9 (4.4%)	5 (4.0%)
Strategic domestic inwestor	71 (20.3%)	26 (9.2%)	16 (7.9%)	6 (4.8%)
Financial domestic inwestor	28 (8.0%)	66 (23.3%)	47 (23.2%)	42 (33.9%)
NIF	4 (1.1%)	2 (0.7%)	-	-
Pension fund	7 (2.0%)	36 (12.7%)	35 (17.2%)	20 (16.1%)
State	14 (4.0%)	4 (1.4%)	1 (0.5%)	1 (0.8%)
Cross shareholding (to be liquidated)	4 (1.1%)	4 (1.4%)	3 (1.5%)	2 (1.6%)
Dispersed ownership	7 (2.0%)	-	-	-
Total	350 (100%)	283 (100%)	203 (100%)	124 (100%)

Source: compilation based on Urbanek (2009), p. 392-393.

As presented in Table 1 domestic individual investors prove to be the most frequent majority shareholders of Polish listed companies. The individual investors often combine the role of majority shareholders (playing key roles via their representatives in supervisory board) and the role of executives at the management board. Therefore they may combine ownership and control exerting decision making and supervision over the company. As noted by Berglöf and Claessens (2006) and Kostyuk and Kostyuk (2005) emerging and transition economies are characterized by the ownership concentration and majority shareholders' involvement in governance and management. Therefore, the hypothesis 2 was formulated.

Hypothesis 2: The ownership concentration of Polish listed companies is the highest in companies controlled by the founder, followed by companies controlled by the strategic investors and companies controlled by the state

The importance of strategic investors as well as of individual investors acting via other companies (holding companies, financial vehicles) in the ownership structure of Polish listed companies led to creation of corporate groups and the development of pyramidal structures which show to be a popular phenomenon noted recently. Although the literature on Polish pyramidal structure is very rare, the initial research reveals that pyramids were indentified in 50% of the largest listed companies (Aluchna, 2010). The development of founder control firms as well as the emergence of pyramidal structures provide interesting potential for the analysis of the ownership and control pattern in Polish listed companies. Addressing the discussed pattern hypotheses 3 and 4 are formulated.

Hypothesis 3: Listed companies prefer pyramidal structures as the mechanisms of control as compared to preferred shares

Hypothesis 4: Pyramidal structures are more frequently to be found in the case of companies with the larger stake controlled by the founder and strategic investors, companies of more concentrated ownership structure and companies with smaller stake of financial institutions

Although the development of pyramidal structures in Poland is severely unexplored, the comparative analysis on the adoption of these structures in different countries reveals that the adoption of pyramids is associated with poorer transparency and the increased threat of the abuse of minority shareholders. These problems appear to be stronger is the case of emerging markets characterized by weaker investor protection and corporate governance standards (Berglof and Claessens, 2006). Less transparent companies are less attractive for investors controlling smaller stakes, particularly for financial institutions. Addressing this findings hypothesis 4 is formulated.

Hypothesis 5: Financial institutions are more likely to invest in smaller companies and in characterized by the smaller ownership concentration and with smaller stake controlled by the stake, smaller stake controlled by the founder, larger stake as well as in companies which adopt one share one vote rule.

3. Research

3.1. Research goal

The research aims at tracing the ownership and control pattern in Polish listed companies focusing on the shareholder identity, degree of ownership concentration and methods for increasing control (preferred shares, pyramidal structures). The existing literature does not provide patterns for the differences in ownership and control with the reference to the company origin and controlling/ dominant shareholder for post-transition economy of Poland. The research on the adoption of pyramidal structures in Poland is practically non existent as the studies are severely constrained by the lack of information.

3.2. Methodology

The research was conducted between October 2012 and January 2013. As no full data base on information on the ownership structure on Polish companies with the reference to shareholder identity and the use of control mechanisms (such as pyramidal structures, preferred shares) is available, all data used for the purpose of this analysis was hand collected. In order to assure for the representative sample of 100 companies listed on the Warsaw Stock Exchange, the set of 25% of companies were investigated. Since the majority of research focuses on the largest and most transparent companies the potential patterns of corporate governance adopted by medium or less liquid companies are not investigated. The collected data refers to the characteristics of ownership structure as of the end of December, 2011 and was obtained from the annual reports. Therefore for the purpose of the research the sample covered 25 largest companies out of every four 100 of largest companies in terms of market capitalization (there are 439 listed companies in Poland). The sample was composed of non financial companies listed on the Warsaw Stock Exchange. In the case of bankruptcy and the lack of data two companies were rejected and replaced by the subsequent companies on the list. The research is based on the following variables:

- The company size bracket – 1 for the first 100, 2 for the second 100, 3 for the third 100 and 4 for the fourth 100
- Market capitalization – as provided by the stock market statistics
- Degree of ownership concentration – 1 for concentrated (staring from 30% of shares), 2 for dispersed

- The largest shareholder identity including the state (1), foreign investor (2), domestic investor (3), individual investor (4), financial investor (5), other – 6
- The size of the largest stake – in percentage of votes controlled
- The size of the largest stake 2 – in percentage of votes controlled with the identification of likely shareholders' coalition (family members, votes controlled directly and indirectly, interlocks between shareholders)
- The number of shareholders registered – according to the Polish regulations only shareholder controlling 5% of shares are obliged to inform the Financial Supervision Authority and are disclosed in the company reports
- The presence of financial institution in the ownership structure – 0 for no, 1 for yes
- The total number of financial institutions in the ownership structure
- The stake (number of votes) controlled by the state if the case when the state is the largest shareholder
- The stake (number of votes) controlled by the strategic investor in the case when the strategic investor is the largest shareholder
- The stake (number of votes) controlled by the founder in the case when the founder is the largest shareholder
- The stake (number of votes) controlled by the financial institution in the case when the financial institution is the largest shareholder
- The use of preferred shares – 0 for no, 1 for yes
- The use of a pyramidal structure – 0 for no, 1 for yes

The statistical analysis was conducted with the use of the standard SPSS software.

3.3. Research results

The analysis allows for the presentation of the initial results on the general characteristics of the ownership and control patterns in Polish listed companies.

Descriptive statistics

The descriptive statistics reveal that 71% of sample companies are characterized by the ownership concentration understood as the stake of the majority shareholder of 30% of votes and more. The general characteristics of the concentration and size variables is presented in Table 2.

Table 2: Descriptive statistics

Variable	Average	SD	N
The stake of the largest shareholder	42.88	21.725	100
The stake of the largest shareholder 2	50.12	19.877	100
Market cap	2124.36	5775.648	

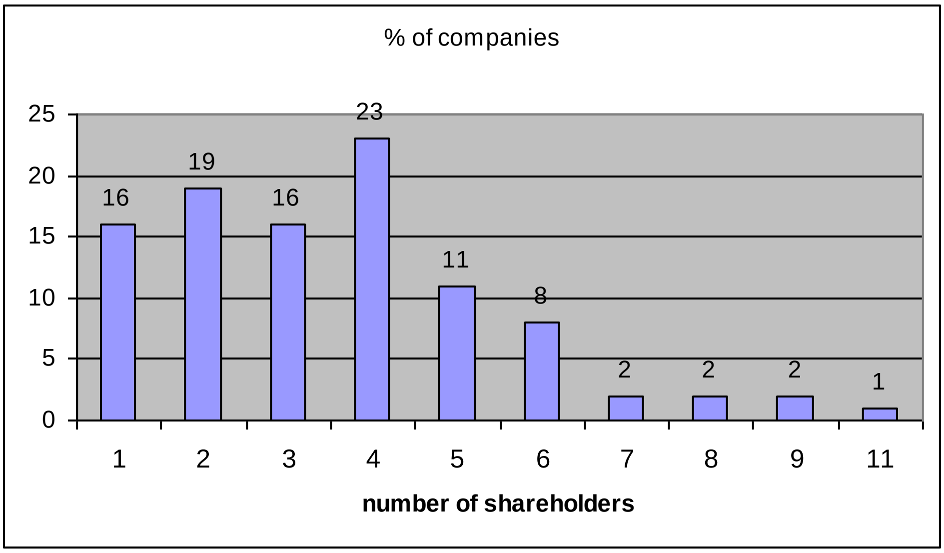
As shown in Table 2 the average stake of the largest shareholder accounted for nearly 43% of votes, while taking into account the coalitions and agreements between investors the average stake of the largest shareholder jumped to 50% of votes. The breakdown of sample companies with the reference to the identity of the largest shareholders is presented in Table 3.

Table 3: The breakdown of sample companies with the reference to the identity of the largest shareholders

Shareholder identity	Number	Percent	Cumulative percent
The state	11	11.0	11.0
Foreign investor	15	15.0	26.0
Domestic investor	30	30.0	56.0
Individual/ founder	29	29.0	85.0
Financial	14	14.0	99.0
Other	1	1.0	100
Total	100	100	

The average number of shareholders disclosed in the annual reports of sample companies was estimated at 3.5 investors. Additionally, the descriptive statistics reveal that in 74% of samples companies there are up to 4 shareholders disclosed in the annual report (i.e. controlling 5% or more). The detailed data is presented in Figure 1.

Figure 1: The number of shareholders in the ownership structure of sample companies



And finally, in the research sample 56% companies adopted pyramidal structure as the mechanism for control while 14% used preferred shares.

Statistical analysis

Statistical analysis were conducted in order to test the formulated hypotheses.

The regression analysis testing hypothesis 1 assuming that the larger ownership concentration is noted in smaller companies, in pyramids, adopting one share one vote rule revealed statistically insignificant results. Hence the hypothesis 1 was rejected.

The non parametric tests were conducted in order to test for hypothesis 2 which assumes that the larger ownership concentration is noted in companies controlled by the founder, followed by companies controlled by the strategic investors and companies controlled by the state. The results of Kruskal-Wallis test are presented in Table 4.

Table 4: The results of Kruskal-Wallis test

Concentration measure	Shareholder type	No. of companies	Average rang
The stake of the largest shareholder 1	1 – state	11	65.41
	2 – strategic domestic	15	70.47
	3 – strategic foreign	29	55.78
	4 – founder/ individual	30	38.32
	5 - financial	14	29.04
	Total	99	
The stake of the largest shareholder 2	1 – state	11	53.95
	2 – strategic domestic	14	60.21
	3 – strategic foreign	29	50.43
	4 – founder/ individual	30	53.37
	5 - financial	13	19.46
	Total	97	

The test revealed statistically significant differences for the stake of the largest shareholder (χ^2= 24.39; p<0.001) and the stake of the largest shareholder 2 (χ^2= 17.70; p<0.005). In order to investigate the differences the Mann Whitney tests were conducted. The statistically significant differences were observed between two groups – between the 1st, 2nd and 3rd shareholder type vs. 5th shareholder type (i.e. between state, domestic and foreign strategic investors vs. financial institutions) and between the 1st, 2nd and 3rd shareholder type vs. 4th shareholder type (i.e. between state, domestic and foreign strategic investors vs. founder/ individual investor). Hence, the hypothesis 2 was partially supported

As mentioned above preferred shares are used by 14% of sample companies while pyramidal structures are adopted by 56% of the samples companies (t(99)=6.74; p=0.0001). This confirms hypothesis 3 saying that pyramidal structures are more popular mechanisms of separation of control and cash flow rights as compared to preferred shares.

Hypothesis 4 assumed that pyramidal structures are more frequently to be found in the case of companies with the larger stake controlled by the founder and strategic investors, companies of more concentrated ownership structure and companies with smaller stake of financial institutions. The regression model (R^2=0.67) reveals the statistical significance three variables: the stake of the strategic investor (beta=0.007; p=0.000), the stake of the state (beta=-0.009; p=0.001) and the stake of the founder (beta=-0.006; p=0.016). The other variables were found not to be statistically significant predictors. These results are presented in Table 5a and 5b.

Table 5a: Step wise regression model - coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.508	.071		7.156	.000
	Stake of the strategic investor	.007	.002	.421	4.590	.000
	Stake of the state	-.009	.002	-.308	-3.670	.000
	Stake of the founder	-.006	.002	-.221	-2.454	.016

Table 5b: Step wise regression model – excluded variables

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Stake of financial institutions	.090	1.004	.318	.102	.713
	No. of investors	-.043	-.485	.629	-.050	.743
	Financial institution as the majority shareholder	.032	.373	.710	.038	.805
	Capitalization	.059	.549	.584	.056	.498
	The stake of the largest shareholder	.223	1.804	.074	.182	.368

Hence, the hypothesis 4 was partially supported.

To test for hypothesis 5a and 5b which assumed that financial institutions are more likely to invest in larger companies, in companies characterized by the smaller ownership concentration and with smaller stake controlled by the stake, smaller stake controlled by the founder as well as in companies which adopt one share one vote rule. The first model included the number of financial institutions in the ownership structure as the dependent variable. The model (R^2=0.48) reveals the statistical significance of three variables the stake of the largest shareholder (beta=-0.25; p=0.000), founder's stake (beta=-0.27; p=0.001) and the adoption of the one share one vote rule (beta=0.92; p=0.03). The other variables were found not to be statistically significant predictors. These results are presented in Table 6a and 6b.

Table 6a: Step wise regression model - coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.531	.555		12.172	.007
	The stake of the largest shareholder	-.025	.006	-.344	4.750	.000
	Founder	-.027	.008	-.325	12.172	.001
	One share one vote	.918	.421	.207	4.750	.032

Table 6b: Step wise regression model – excluded variables

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Capitalization	-.112	-1.193	.236	-.122	.902
	State	-.062	-.651	.517	-.067	.898
	Strategic investor	-.028	-.227	.821	-.023	.520
	Pyramidal structure	.081	.821	.414	.084	.821

Hence, the hypothesis 5a was partially supported.

The second model included the total stake controlled by financial institutions in the ownership structure as the dependent variable. The model (R^2=0.66) reveals the statistical significance five variables: the number of shareholders (beta=2.25; p=0.001, the founder's stake (beta=-0.55; p=0.000), the stake controlled by the strategic investor (beta=-0.41; p=0.000), the stake controlled by the state (beta=-0.45; p=0.000) and the stake of the largest shareholder (beta=0.37; p=0.000). The other variables were found not to be statistically significant predictors. These results are presented in Table 7a and 7b.

Table 7a: Step wise regression model - coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.437	4.479		.991	.324
	No of investors	2.251	.645	.334	3.491	.001
	Founder	-.555	.084	-.755	-6.606	.000
	Strategic investor	-.414	.073	-.848	-5.652	.000
	State	-.451	.089	-.585	-5.099	.000
	The stake of the largest shareholder	.372	.086	.589	4.336	.000

Table 7b: Step wise regression model – excluded variables

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Capitalization	-.033	-.294	.769	-.030	.475
	Pyramidal structure	.050	.465	.643	.048	.537
	One share one vote	.028	.327	.744	.034	.857

Hence, the hypothesis 5b was partially supported.

3.4. Discussion

The analysis depicts the general characteristics and patterns of ownership and control in Polish listed companies. First of all, as identified in the descriptive statistics Polish listed companies reveal significant ownership concentration – over 70% of sample companies were categorized as of concentrated ownership while the average stake of the largest shareholder accounted for nearly 43% of votes, and taking into account the coalitions and agreements between investors shareholder it jumped to 50% of votes. In addition, the sample companies reveal the low number of shareholders (average of 3.5 shareholders) – in 74% of samples companies there are up to 4 shareholders disclosed in the annual report (i.e. controlling 5% of votes or more). The ownership concentration finding is consistent with previous research (Kozarzewski, 2003; Aluchna, 2007; Urbanek, 2009) as well as with the general characteristics of transition economies (World Bank 2005a; World Bank 2005b, Berglöf and Claessens, 2006). The breakdown of sample companies with the reference to the identity of the largest shareholders shows the dominance of companies controlled by individual investor/ founder (29%), followed by domestic strategic and foreign strategic investors (15%). Interestingly, financial institutions known for their passivity and reluctance of involvement in ownership (Kozarzewski, 2003) were identified as the largest shareholder in the case of 14% of sample companies. Hence, the presence of financial institutions in the ownership structure of polish listed companies increases. Referring to the use of mechanisms of separation of control and cash flow rights 56% of analyzed companies adopted pyramidal structure while 14% used preferred shares.

The rejection of hypothesis 1 indicates that no relationships between the larger ownership concentration and the size of the companies, the use of pyramidal structures and the adoption of one share one vote rule were observed. Thus research suggests that neither smaller companies show the tendency to reveal stronger ownership concentration, nor concentration is related to the use of mechanisms of separation of control and cash flow rights. Hence, the ownership and control pattern seem not to differ statistically significantly with respect to the company's size. The analysis of the relationships between the shareholder type and the degree of ownership concentration revealed statistically significant differences indicating the differences observed between two groups – between the 1^{st}, 2^{nd} and 3^{rd} shareholder type vs. 5^{th} shareholder type (i.e. between state, domestic and foreign strategic investors vs. financial institutions) and between the 1^{st}, 2^{nd} and 3^{rd} shareholder type vs. 4^{th} shareholder type (i.e. between state, domestic and foreign strategic investors vs. founder/ individual investor). Both, companies controlled by founder/ individual investor and controlled by financial institutions revealed lower ownership concentration as compared to companies controlled by the state, domestic and foreign strategic investors. As long as the lower ownership concentration observed in companies controlled by the state, domestic and foreign strategic investors is consistent with other research, the lower ownership concentration in companies controlled by founder/ individual investor appears to be surprising as insiders are usually expected to increase the votes and stakes controlled (Berglöf and Claessens, 2006). This finding seems to contradict the assumption of insiders viewed as powerful oligarchs in other transition economies. Referring to this evidence the adoption of pyramids is connected with the presence of the strategic investors in the ownership structure while the presence of the state and the founder showed the negative relationship. Hence, the Ministry of Treasury seem not to form pyramids in controlled companies. And finally, the greater presence of financial institutions (in terms of the number of financial institutions) in the ownership structure is associated with the smaller stake controlled by the founder as well as in companies which adopt one share one vote rule. The greater presence of financial institutions (in terms of the stake controlled by financial institutions) in the ownership structure is associated with the larger number of shareholders, smaller stake controlled by the founder, smaller stake controlled by the strategic investor and smaller stake controlled by the state. Interestingly, the results for the degree of concentration delivered non conclusive results.

In sum, the concentrated ownership in analyzed companies may be seen the solution to agency problems and free rider problems (Jensen and Meckling, 1976; Shleifer and Vishny, 1997; Neun and Santerre, 1986; Holderness and Sheehan, 1988). The ownership concentration proves to be an important monitoring mechanism being the second best solution (Morck and Steier, 2005) as external mechanisms are not working well in the post transition economy of Poland. In the case of sample companies pyramids are more frequently used as the mechanisms of separation of control and cash flow rights as compared to the adoption of preferred shares what is consistent with the results of the comparative analysis (Morck, 2005, 2009).

Conclusion

This paper focuses on the characteristics of ownership and control observed in Polish listed companies as the research sample combines the state owned enterprises, companies privatized to domestic and foreign investors, firms set up after 1989 by a founder/ entrepreneur and finally companies controlled by financial institutions. Research on the ownership structure of Polish companies is definitely insufficient, while the deeper analysis on the patterns of control and ownership remains extremely scarce. This paper presents initial results of the research on the characteristics of ownership and control on the sample of companies listed on the Warsaw Stock Exchange. As shown in the paper Polish listed companies reveal significant ownership concentration and are more willing to adopt pyramidal structures as the mechanisms of separation of control and cash flow rights as compared to the adoption of preferred shares. The ownership and control pattern seem not to differ statistically significantly with respect to the company's size. Surprisingly, companies controlled by founder/ individual investor and controlled by financial institutions revealed lower ownership concentration as compared to companies controlled by the state, domestic and foreign strategic investors. However, companies denoting small stakes of founders and the state as well as the adopting of one share one vote rule seem to be more attractive investment for financial institutions.

The paper attempts to fill the gap in corporate governance literature referring to ownership and control patterns of listed companies of different majority shareholder and origin, all operating in the post socialist and post transition corporate governance reality. The paper presents the initial results of the empirical studies conducted on the representative sample of 100 Polish companies listed on the Warsaw Stock Exchange based on hand collected data on ownership structure. The research has however several constrains and limitations. First, the research is based on a small representative sample of 100 firms covering 25% of companies listed on the Warsaw Stock Exchange. The hand set data was collected for 2011 only. The wider time span of the data would allow to trace the dynamics of the ownership and control mechanisms in Poland, although as shown in a set of studies these patterns remain stable over time. Also widening the sample to all listed companies would deliver potentially interesting information of ownership and control patterns. This paper addresses a set of introductory aspects of degree of the ownership concentration, shareholder types and mechanisms for separation the cash flow and control rights (pyramids and preferred shares). The possibility to extend the analysis to other aspects of the for instance dividend payout policy, quality of corporate governance would help to see a larger case. Moreover, the analysis is based on a simple statics and characteristics of the sample companies while a more complex statistical analysis would be helpful in understanding the logic of ownership and control patterns in Poland.

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