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## **Corporate governance and efficiency of a firm**

Research on corporate governance (boards of directors) is very popular in Western countries. The focus of the research has generally been on the relationships between different characteristics of the board and performance of the firm<sup>1</sup>. However, this subject of research was not popular in centrally-planned economies, as there were no typical institutions of corporate governance. The process of economic transformation initiated a lot of changes in this area. Institutions of external control over the firms started to create and develop, such as capital market, effective labor and product markets. At the same time, privatization of the state property enabled creation of new forms of enterprises: joint-stock companies, with their internal institution of control: board of directors (corporate governance).

The objective of the paper is to develop empirical knowledge about corporate governance in Poland in the period of economic transformation. The point of departure is a conceptual framework about types of corporate governance, based on the so called orientation of a board of directors and its rate of involvement. Theoretical model was tested on a sample of 59 Polish and 91 Swedish companies listed at the Warsaw and Stockholm Stock Exchanges (as the Polish research was a part of international program)<sup>2</sup>.

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<sup>1</sup> See for example: S.A. Zahra, J.A. Pearce Jr., Boards of Directors and Corporate Financial Performance: A Review and Integrative Model, *Journal of Management* 1989, vol. 15, no 2; S.C. Vance, *Boards of directors: Structure and performance*, Eugene, OR: University of Oregon Press, 1964.; J. Pfeffer, *Size and Composition of Corporate Boards of Directors: The Organization and Its Environment*, *Administrative Science Quarterly* 1972, s. 218-228; I.F. Kesner, *Directors' stock ownership and organizational performance: An investigation of Fortune 500 companies*, *Journal of Management* 1987, no 13, s. 499-508; R. Schmidt, *Does board composition really make a difference?*, *Conference Board Record* 1975, vol. 12, no 10, s. 38-41; J.A. Pearce Jr., S.A. Zahra, *Board composition from a strategic contingency perspective*, *Journal of Management Studies* 1992 vol. 29, no 4, s. 411-438; R. Molz, *Managerial Domination of Boards of Directors and Financial Performance*, *Journal of Business Research* 1988, no 16, s. 235-249; J.A. Pearce Jr., S.A. Zahra, *The relative power of CEOs and boards of directors: Associations with corporate performance*, *Strategic Management Journal* 1991, no 12, s. 135-153.

<sup>2</sup> The program was headed by prof. C. Svensson from Lund University, Sweden. Researchers from Lund University and University of Lodz participated in the program. This part of the paper is summing up of results of empirical research, presented in: J. Działo, K. Jonnergard, M. Karreman, C. Svensson, P. Urbanek, *Corporate board's line of reasoning - comparison between corporate governance in Poland and*

Four categories of boards (types of corporate governance) were identified. Distribution of boards between different clusters (groups) of boards according to their nationality (Polish or Swedish) was clearly visible. The national antecedents of mentioned distribution were tested, however, they are not subject of this paper. In the paper the effects of different types of corporate governance on performance of the firm were tested (only for the Polish sample). Support was given to hypothesis that particular types of corporate governance influence the firm efficiency.

## **Introduction**

Corporate governance is a system of external and internal control mechanisms that allows the owners to control activities of the firms, especially activities of their managers. One element of corporate governance system is a board of directors. The paper focuses on this mechanism of control. Necessity of existence of the corporate governance system results from the process of the so called separation of ownership and control. According to many economists, in large joint-stock companies their managers use their position to protect their own interests and do not take care of the interests of the firms' owners. In other words, interests of shareholders and managers are divergent. Shareholders tend to maximize their wealth (for example through increase of share prices) while managers look for prestige, high salaries, safety of their jobs, etc. Therefore there is a need for controlling the activities of managers. One of the ways is to appoint the board of directors as a representative body of the owners.

## **Theoretical framework**

In the paper it is assumed that there exist different types of corporate governance (boards of directors) in the economy, based on orientation of the board and its rate of involvement. Board orientation may be defined as a way of fulfilling the functions of the board. To extract the possible contents of the board orientation, the distinction utilized by Walsh and Seward will be used: a/ the identification and rank-ordering of a firm's

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Sweden, in: M.A. Hitt, J.E.R. Costa, R.D. Nixon (eds.), *Managing strategically in an interconnected world*, J. Wiley & Sons, Chichester 1998.

claimants or stakeholders; b/ the appropriate measure of firm performance<sup>3</sup>. Applying the categories of Walsh and Seward, a number of aspects which constitute the board's orientation can be distinguished. These aspects may be decomposed in two different dimensions. First, a board orientation where the financial markets and the interest of shareholders is the main focus of the board. In this context, the objective of the board is primarily to protect shareholders' interests. This implies an emphasis on company performance related to financial market, i.e. stock market. The focus is on financial measures and devices when initiating, ratifying and monitoring activities. Accordingly, boards working in this manner may be described as having financial orientation in the way their functions are carried out. A second orientation a board may apply in its work, is an orientation toward the industrial markets of the firm and ranking of other stakeholders of the firm as being just as important as the shareholders. This implies that the board applies a wider area of measures and devices than merely the financial ones when initiating, ratifying and monitoring activities. The focus would be on the performance of the firm in its industrial markets rather than in financial market and on securing the company's continuity. Accordingly, boards working in this manner may be described as having an industrial orientation in the way their functions are carried out.

It is important to underline that the financial and industrial orientation is a matter of degree. The decision leading to an acquisition, for example, may be advocated primarily for the assumed growth of stock value provided that the board places a financial emphasis in its work. On the other hand, the same acquisition may be supported primarily from an assumed growth of market share, provided that the board places an industrial emphasis in its work. Empirical studies are expected to show that each board of directors acts more or less with both a financial and an industrial orientation.

Most boards are likely to have a more or less financial and/or industrial emphasis when performing their tasks. This means that board behavior appears to be a multicomposed. In order to get a point of departure for empirical research, however,

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<sup>3</sup> Walsh, J.P, Seward, J.K., On the Efficiency of Internal and External Corporate Control Mechanisms, *Academy of Management Review* 1990, vol. 15, no 3, pp. 421-450.

„pure types" of boards as combinations of the orientation and involvement dimensions have to be developed.

Table 1. Types of corporate governance based on kind of orientation and rate of involvement

Kind of orientation		Financial orientation	
		high	low
Industrial orientation	high	Active boards	Industrially oriented boards
	low	Financially oriented boards	Passive boards

Source: K. Jonnergard, M. Karreman, C. Svensson, Classifying board behavior - an empirical test on large Swedish companies, paper presented at the 1995 Academy of Management meeting, August 6-9, 1995, on Business Policy and Strategy Division

The active board is actively involved in issues with both an industrial and a financial orientation and performs its functions with a high rate of involvement. This kind of board covers issues on the agenda from both a financial and an industrial point of view. If a board of this kind really exists, it probably consists of a number of directors with an industrial perspective as well as directors who advocate and guard the interests of the stock market and who are conscious about how the company's operations affect this market.

The industrially-oriented board is involved in the industrial development of the company.

Boards in this category are active in setting strategic goals as well as in participating in strategy making and reviewing the outcome of strategies.

The directors' knowledge about the industry or industries is an important input in the work of the board. The financial emphasis is limited to ex post control through budgets and financial measures.

The financially-oriented board is a board which primarily emphasizes the effects on the financial market as a criterion for decisions. The financial emphasis implies that the board actively pursues financial control, both ex ante and ex post through budgets and financial measures. Financial issues dominate the work of the board. The board is the recipient of reports about planned strategies and investments so control is pursued ex post. This kind of board is more likely to be found in companies which have been listed on the stock market for a long time .

The passive board is not particularly active and consequently the emphasis is of subordinate importance. It is a board that leaves most of the work in the hands of the management. The role of the board is to ratify decisions which are prepared by management and in reality also made by management. This kind of board is the logical result of the emergence of the managerial revolution as discussed in literature<sup>4</sup>. If the managerial revolution actually has occurred, the passive board ought to be the most common type of board in an empirical setting.

### **Instrument development**

In order to measure the board orientation an instrument for this purpose was developed. The directors and CEOs of each company studied were asked to assess a number of different types of decisions likely to appear on the agenda of boards. The types of decisions were: investments in fixed assets, mergers and acquisitions, decisions about product development, strategic planning, and introduction of the company's stocks on a foreign stock exchange.

For each type of decision, the theoretical aspects were defined: industrially related aspects (industrial foresight, industrial synergy, market opportunities, and technological

innovativeness), and financially related aspects (stock-market reaction, fast payback, effects on the firm's capital structure, and growth of dividends). A Likert scale ranging from one (a value of non-influence) to seven (a value of decisive importance) was used in order to assess the perceived importance of the aspects. An example of a question used in the survey is given in Figure 1.

**Figure 1** Example of question for measuring the orientation: *When dealing with product development, to what degree does the board of (Company name) emphasize the following?*

a. Market opportunities	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
b. Fast payback	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
c. Industrial foresight	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
d. Stock-market reaction	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
e. Growth of dividends	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
f. Technological innovativeness	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
g. Industrial synergy effects	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance
h. Effects on the firm's capital structure	No importance = <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> = Decisive importance

Both the types of decisions and the aspects used when measuring the contents of a board's orientation were deduced from the literature on strategy and corporate governance. Aspects have been chosen that are likely to be generally regarded as meaningful in market economies. Furthermore, those aspects were industrially and financially related. Use of international literature on strategy and corporate governance increased the likelihood that the aspects chosen had the desired features.

## **Sample descriptions and procedures**

The Swedish sample

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<sup>4</sup> A.A. Bearle Jr., G. C. Means, *The modern corporation and private property*, Macmillan, New York 1932.

In order to perform the comparative study with Poland, data about boards of directors of companies listed on the Swedish Stock Exchange<sup>5</sup> in 1994 was collected. At the time of investigation, 104 companies were listed. Questionnaires were personally sent to directors and CEOs of the companies. In 1993, 969 positions were held by 694 different persons. Since the directors of the boards of banks and pure investment companies usually occupy positions in one or more companies' boards, banks and pure investment companies were excluded from our population. Accordingly, questionnaires were sent to directors and CEOs in 97 companies<sup>6</sup>. After two reminder letters, the overall response rate was 66%. Due to low response rates in six companies, these companies were excluded from the further analysis.

Table 2: The population and response rate of the Swedish sample

	<b>Board members</b>	<b>CEOs</b>	<b>All categories</b>
Total number of positions	872	97	969
Number of individuals	597	97	694
Responded	397	64	461
Response rate	66,5%	65,98%	66,43%

a The response rates refer to the ratio between the number of individuals approached and the number of individuals that responded to the questionnaire

#### The Polish sample

At the time when the Polish investigation was conducted, there were 70 companies listed on the Warsaw Stock Exchange. Questionnaires were sent to members of the supervisory boards and presidents of management boards (CEOs) in 78 companies, as 8 of them had already started a formal qualifying procedure at the Securities Commission. There were 553 positions in the supervisory boards at that time, occupied by 530 members, so the total number of investigated individuals amounted to 608 (530 board members plus 78 presidents of the management boards). Two reminder letters were sent. Finally 199

<sup>5</sup> The companies studied are all included in the A-list, the official list for marketed shares. Apart from this list, an O-list exists which less rigid demands for accounting information and dispersion of shares, as well as an OTC list for smaller companies.

<sup>6</sup> Another reason for excluding banks and investment companies is that most directors in these companies are elected due to their position as large customers rather than as owners. Four banks and three investment companies were listed at the time of the study.

questionnaires from board members and 47 questionnaires from presidents were collected, which gives a 37,4% response rate for board members and 60,3% for CEOs. In the case of 59 companies, there were two or more questionnaires collected and those companies were included into the sample.

Table 3: The population and response rate of the Polish sample

	<b>Board members</b>	<b>Presidents</b>	<b>All categories</b>
Total number of positions	553	78	631
Number of individuals	530	78	608
Responded	199	47	246
Response rate	37,4%	60,3%	40,5%

To be able to describe and compare boards of directors in Poland and Sweden, an adequate measure has to be developed and a statistical method of comparison chosen. In this section, the measurement and the statistical method used, a cluster analysis, is described in some length. The result of the cluster analysis is then discussed.

### **Factor and cluster analysis**

In each of the four types of decisions', eight different aspects were examined, yielding a total of 32 items that describe perceptions of the board's orientation. In order to explore the consistency and underlying structure in the respondents' answers, factor analysis was applied to the 32 items. The method of extraction used was principal components, considering the ordinal nature of the Likert scale. To achieve a more distinct factor definition, varimax rotation was used. The data were thus reduced from 32 variables to 8 factors on the basis of a eigenvalue above a cut-off of 1.

Table 4: Variables covered by the different factors, eigenvalues and weights

<b>Factor</b>	<b>Eigenvalue</b>	<b>% of Var.</b>	<b>Cum. var.</b>	<b>Weight<sup>a</sup></b>
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1. Items regarding technological innovativeness	8,60	26,9	26,9	37,0
2. Items regarding growth of dividends	3,93	12,3	39,2	16,9
3. Items regarding synergy	2,73	8,5	47,7	11,7
4. Items regarding capital structure	2,20	6,9	54,6	9,5
5. Items regarding payback	1,90	5,9	60,5	8,2
6. Items regarding market opportunities	1,48	4,6	65,1	6,4
Items regarding stock-market reactions	1,32	4,1	69,3	5,7
7 Items regarding industrial foresight	1,08	3,4	72,6	4,6

<sup>a</sup> Factor weights were calculated as follows: weight for factor 1 =  $\frac{\text{eigenvalue for factor 1}}{\sum \text{eigenvalue for factors 1 - 7}} \cdot 100\%$ . Analogous calculations were made for other factors.

Source: J. Dzia³o, K. Jonnergard, M. Karreman, C. Svensson, P. Urbanek, Corporate board's line of reasoning - comparison between corporate governance in Poland and Sweden, in: M.A. Hitt, J.E.R. Costa, R.D. Nixon (eds.), *Managing strategically in an interconnected world*, J. Wiley & Sons, Chichester 1998, s. 242.

To compute factor scores, a weighted average of responses for the variables highly correlated with the factors was calculated with the corresponding factor loadings as weights. The factor scores for the individual directors were aggregated into an index for each board. The index was built upon the mean of the different observations.

With the resulting factor scores as inputs, cluster analysis was used to identify key groups of boards with similar lines of reasoning. A non-hierarchical clustering approach (centroid method) was chosen. To eliminate bias due to extreme cases, an analysis of outliers was made, identifying companies with extreme scores. They were excluded, and the number of companies in the cluster analysis consequently became 150. Prior to clustering the boards, it was decided that the number of clusters should be kept between 2 and 7, considering that the resulting factors strictly define only two dimensions: financial and industrial orientation.

Clustering results were evaluated according to how the clusters differentiated on the factor distribution. In interpreting the differences, the factors were given weights for appropriate influence according to their eigenvalue (see Table 4). After careful review of several cluster runs, the four-cluster solution, as summarized in Table 5, was considered.

The four clusters were given names: the active, passive, financially-oriented, and industrially-oriented boards.

Table 5: Cluster means in relation to grand mean

Factors	Grand mean	Cluster 1 - mean	Cluster 2 - mean	Cluster 3 - mean	Cluster 4 - mean
1. Technological development	4,47	5,27	4,47	3,27	4,69
2. Growth of dividends	3,98	4,94	3,45	4,13	3,91
3. Synergy effects	4,94	5,13	3,97	4,47	5,40
4. Capital structure	4,86	5,21	4,47	5,42	4,96
Fast pay back	4,56	5,22	4,60	4,41	4,37
6. Market opportunity	6,23	6,45	6,01	6,09	6,31
7. Stock market reaction	3,63	4,65	3,21	3,84	3,42
8. Industrial foresight	5,69	5,88	5,38	5,31	5,86

Source: as in table 4

Table 6: Cluster profiles in relation to factors.

Cluster 1		Cluster 2		Cluster 3		Cluster 4	
technological innovativeness	29,60	fast payback	0,33	capital structure effects	5,32	technological innovativeness	8,14
growth of dividends	16,22	technological innovativeness	0,00	growth of dividends	2,54	synergy effects	5,38
stock market reaction	5,81	market opportunities	-1,41	stock market reaction	1,20	capital structure effects	0,95
fast payback	5,41	industrial foresight	-1,43	market opportunities	-0,90	industrial foresight	0,78
capital structure effects	3,33	stock market reaction	-2,39	fast payback	-1,23	market opportunities	0,51
synergy effects	2,22	capital structure effects	-3,71	industrial foresight	-1,75	growth of dividends	-1,18
market opportunities	1,41	growth of dividends	-8,96	synergy effects	-5,50	stock market reaction	-1,20
industrial				technological			

foresight	0,87	synergy effects	-11,35	innovativeness	-44,40	fast payback	-1,56
28 boards (19% of the total sample)		31 boards (21% of the total sample)		28 boards (19% of the total sample)		63 boards (42% of the total sample)	
15 Polish boards (25% of the Polish sample)		25 Polish boards (42% of the Polish sample)		4 Polish boards (7% of the Polish sample)		15 Polish boards (25% of the Polish sample)	
13 Swedish boards (14% of the Swedish sample)		6 Swedish boards (7% of the Swedish sample)		24 Swedish boards (26% of the Swedish sample)		48 Swedish boards (53% of the Swedish sample)	

Source: as in table 4

The factor analysis revealed factors consisting of the dimensions that were generated as possible dimensions indicating the board's orientation. The fact that the factors were not blurred, but appeared as "clean" and followed theoretically generated dimensions, seems to provide evidence of the relevance of the dimensions when it is to express the contents of a board's orientation. The first of the tables (Table 5) presents the grand mean and the means for the different clusters of the eight factors. The second table (Table 6) shows the weighted factors' means for different clusters, ordered according to the factors' relative importance for the specific cluster. As mentioned above, the weighted factors were used as input for interpreting differences between clusters. The result of the analysis gives four clusters: one large cluster (cluster no. 4) and three of about the same size.

## Discussion

Looking at the ordering of factors that constitute the clusters, the third and the fourth clusters appear to have an ordering of the factors that follows the financially and industrially related dimensions. The third cluster appears to contain boards of directors that - compared to the rest of the boards - emphasize factors connected to the capital market and capital structure of the firm. The impression is strengthened by the fact that this cluster is the one cluster among the clusters with the highest mean for the importance

of capital structure and the second highest mean regarding the factors related to increases in dividends and stock-market reactions. Another characteristic of this cluster is the relatively low score that the factor "technological development" was given. Looking at the factors as a pattern of different dimensions expressing the boards' orientations in their work when preparing, taking, and following up decisions, it is apparent that the directors of these boards carefully take into account the effects of the firm's relationship with the stock market. The boards of this cluster are therefore labeled *financially-oriented boards*.

Unlike the cluster representing the financially-oriented boards, boards included in the second cluster appear to put a very low emphasis on factors related to the capital market. Relative to these aspects, the boards of this cluster appear to emphasize factors concerning the company's internal efficiency, such as rapid payback and technological development. One feature of boards in this cluster, however, is that the emphasis put on the different factors, compared with boards in other clusters, is very low. The means of the factors for this cluster have the lowest scores of all clusters, except for the factors reflecting payback and technological development. Here, the means are the next-highest and, respectively the next-lowest. The cluster is therefore named passive boards.

A contrast to the passive boards are the boards included in cluster one. This cluster contains a mixture of financially-related and industrially-related factors, which all exhibit a positive deviation from the grand mean. Looking at the means of the different factors, the cluster has the highest mean of all factors, except from synergy and capital structure, where the cluster has the second-highest mean. Given that the two factors with the highest differentiating value (F-value) in the cluster analysis are technological development and increase in dividends, a pattern is revealed consisting of boards with an orientation emphasizing both financially related and industrially-related dimensions in the logic behind their work. The cluster is therefore labeled *active boards*.

In the fourth cluster, technological development, synergy, and capital structure receive more emphasis, compared to the other clusters. It gives an impression of a mainly industrial orientation in these boards. This impression is strengthened by the mixture of the factors of technological development, synergy, industrial foresight and market

opportunities, which all exhibit a positive deviation from the grand mean, while increase in dividends, stock-market reaction and payback, all reflective of the financial dimensions, exhibit a negative deviation from the grand mean. This might imply an orientation on the part of the board towards change and restructuring of the industry. The board is therefore labeled *the industrially-oriented board*. The industrially-oriented board profile is somewhat similar to the profile of the passive board. However, when comparing the profiles, it becomes clear that the passive board considers the factors as less significant for decision making compared to the industrially-oriented board.

The passive boards include mostly Polish boards. 80% of the boards in this cluster are Polish. This corresponds to 42,4% of all Polish boards. The cluster labeled financially oriented boards, on the other hand, contains mainly Swedish boards. 86% of the boards in this cluster are Swedish, corresponding to 26,4% of all Swedish boards of directors. Most Swedish boards, however, are found in the cluster for boards with an industrial orientation, where 52,7% of all Swedish boards are positioned. In the same cluster, 25,4% of the Polish boards are positioned. The same percentage of Polish boards is found in the active cluster, which also contains 14,3 % of the Swedish boards. From this, one may conclude that the clusters include one that is "Polish" and one "Swedish" and two mixed clusters where the active is relatively dominated by Polish boards and the industrially-oriented cluster is relatively dominated by Swedish boards.

From this a conclusion may be drawn that there are differences in the board's orientations among Polish and Swedish firms. The overall pattern shows that the industrial orientation is the most general (42% of the merged Polish and Swedish populations) while the three other orientations show about equal sizes. However, the domination of the industrial orientation depends mainly on Swedish boards (52,7% of these boards belong to the industrial cluster), while 25,4 % of the Polish boards belong to the cluster. There is also a Swedish domination in the financially oriented cluster with 26,4% of the Swedish boards positioned in this cluster, but only 6,8% of the Polish. The Polish domination is largest in the cluster with the passive boards. Here, 42,4% of the Polish boards wind up (but only

6,6% of the Swedish boards). Polish boards also dominate the active cluster (25,4%), but 14,3% of the Swedish boards also belong to this cluster.

### **Analysis of financial ratios**

The next step in an analysis of corporate governance was to find out whether different types of boards have an impact on efficiency of a company. Economic efficiency of a firm is determined by many factors, for example macroeconomic conditions, company's market characteristics, as well as size of a company, modernity of production equipment and technologies, employee qualifications (especially managers). One of the factors that may influence financial standing of a company is its board of directors. One may expect that financial standing of companies will vary according to type of corporate governance. Due to existence of many factors influencing company's activity, the impact of a board is rather difficult to evaluate. The most probably seems to be hypothesis that companies with active boards will find themselves in relatively better financial standing compared to companies from remaining clusters, since they are highly involved in both financial and industrial aspects of a firm's activity.

As there were only four Polish companies in financially oriented cluster, and only one of them could be included into analysis of financial standing (bank and two insurance companies had to be excluded due to difficulties with comparison of financial data), this cluster was excluded from further analysis. For the same reason banks and insurance companies from other clusters were also excluded. Therefore, financial ratios for companies with active boards were compared with ratios for companies with passive and industrially oriented boards. Finally, 43 companies were subject to analysis: 12 with active boards, 18 with passive boards, and 13 with industrially oriented boards.

Four groups of financial ratios were calculated: liquidity, profitability, debt, and market value ratios. In the case of the last group, due to lack of data, only one ratio was calculated: earnings per share for the years 1994-1995. Efficiency ratios were excluded as they depend mostly on a kind of a company's activity and should be compared between

firms operating in the same branch. As in particular clusters there were companies operating in different branches of industry, comparison of efficiency ratios between clusters was useless.

### 1. Profitability ratios

Gross profit margin (%)	1993			1994			1995		
	AB	PB	IB	AB	PB	IB	AB	PB	IB
	12,4	11,4	8,0	10,9	9,8	8,6	11,4	5,4	7,7

<sup>1</sup> Value of gross profit margin ratio for each group of companies was calculated according to the formula:  $\text{gross profit margin} = \frac{\sum \text{gross profit}}{\sum \text{return on sales}}$ , where numerator shows total gross profit of all companies in a given group, and denominator total return on sales in those companies. Calculations for remaining ratios were made in the same way. This is weighted average ratio for companies in a given cluster.

<sup>2</sup> AB - active boards

<sup>3</sup> PB- passive boards

<sup>4</sup> IB - industrial boards

Source: Own calculations based on statistical data (balance sheets and profit and loss accounts) for the Polish sample for the period 1993-1995

Operating margin (%)	1993			1994			1995		
	AB	PB	IB	AB	PB	IB	AB	PB	IB
	11,8	9,8	7,0	9,9	9,2	8,8	8,9	4,4	7,4

Net profit margin (%)	1993			1994			1995		
	AB	PB	IB	AB	PB	IB	AB	PB	IB
	8,0	4,6	3,5	8,8	6,8	5,6	8,7	2,0	5,2

Return on assets (ROA) (%)	1993			1994			1995		
	AB	PB	IB	AB	PB	IB	AB	PB	IB
	10,6	6,7	6,3	15,2	9,1	9,1	13,8	3,1	8,4

Return on equity (ROE) (%)	1993	1994	1995

	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>
	17,1	12,1	11,4	24,7	15,6	14,8	20,0	5,0	13,4

## 2. Liquidity ratios

<b>Current ratio</b>	<b>1993</b>			<b>1994</b>			<b>1995</b>		
	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>
	1,69	1,65	1,82	1,98	2,07	1,96	2,11	1,53	1,54

<b>Quick ratio</b>	<b>1993</b>			<b>1994</b>			<b>1995</b>		
	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>
	1,22	1,12	1,15	1,29	1,32	1,01	1,48	0,84	0,76

## 3. Debt ratios

<b>Debt ratio (%)</b>	<b>1993</b>			<b>1994</b>			<b>1995</b>		
	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>
	36,4	42,4	37,0	30,6	28,8	31,4	23,9	32,9	37,6

<b>Debt to equity ratio (%)</b>	<b>1993</b>			<b>1994</b>			<b>1995</b>		
	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>
	63,6	78,1	66,2	46,9	44,3	47,7	33,6	54,9	61,9

<b>Long-term debt ratio (%)</b>	<b>1993</b>			<b>1994</b>			<b>1995</b>		
	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>	<b>AB</b>	<b>PB</b>	<b>IB</b>
	12,9	16,5	6,8	8,2	8,3	4,6	3,0	8,1	6,0

## 4. Capital market ratios

<b>Earning per share (PLN)</b>	<b>1994</b>			<b>1995</b>		
	<b>RA</b>	<b>RB</b>	<b>RP</b>	<b>RA</b>	<b>RB</b>	<b>RP</b>
	1,15	0,13	1,32	1,44	0,55	1,57

## Discussion

Analysis of financial ratios proved existence of relationship between type of corporate governance and financial standing of a firm. A hypothesis was positively verified that active boards contribute to relatively better financial results of companies. This is especially visible in a case of profitability ratios. All of them have better values in companies with active boards in the whole investigated period, but differences are most clearly visible in 1995. Similar, although a bit weaker tendency, was visible in a case of liquidity ratios. Again, the biggest differences took place in the final year of analysis. Analysis of debt ratios shows that in the years 1993-1994 position of companies with active boards was not visibly better compared to other groups, and in some case companies with industrial boards and passive boards had better values of debt ratios. However, it should be underlined that in a case of debt ratios it is difficult to define their optimal values as they can be different taking into account an accepted criterion of evaluation. From the viewpoint of creditors lower debt ratios are better because they minimize their risk, but in a case of investors low level of debt ratios is not so favourable, as it usually informs about low efficiency of management. Use of external source of capital often raises profitability of own capital (through financial leverage) and minimization of debt ratios reduces such possibilities. Therefore values of debt ratios in particular groups of companies can reflect not only demands of creditors, but also needs of raising return on equity. For this reason there are no optimal values of debt ratios.

Visible tendency of improvement of financial ratios in active group in 1995 may partly result from the fact that positive influence of active type of corporate governance on financial standing of companies needs time. Therefore differences at the beginning of investigation (1993) were significantly lower than at the end (1995).

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