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Board Members Oversight System—A Polish Example

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The goal of the study was the development of a system to monitor the members of supervisory and management boards. The system currently covers 8,454 joint stock companies registered in Poland. The main purpose of the system is to monitor every change in the composition of every board of every joint stock company, from March 2001 up to the present, and it is updated every month. This system, however, also enables us to confirm some of the theories from the field of corporate governance. A generation change has been identified in the boards of the joint stock companies which were examined. Women constitute a large, and continuously increasing, section of the board members. The number of family companies, and of family involvement in boards, is still increasing. Board members of financial institutions (and not just of banks) possess significantly more directorates than board members of non-financial institutions. The number of interlocking directorates is positively linked to the macroeconomic development indicator of the total investment as percentage of GDP for Poland.

Keywords: board composition, supervisory board, two-tiered board, Poland

Introduction

The goal of the studies, the results of which are presented here, was to develop a tool that would enable the overseeing and identification of trends which appears in the area of the corporate governance of joint stock companies in Poland. The object of interest was joint stock companies, because the biggest and most important enterprises in the Polish economy usually possess this legal form. It must be remembered that a legal form of joint stock companies was absent in Poland from 1939 until 1989. After this period, it was revived and "spontaneously" developed. This "spontaneous" development also caused new and dangerous situations to arise.

In Poland, as in Germany, there is a two-tier system in whose framework there an oversight board and a management board may occur. When we want to compare a one-tier system and a two-tier system, we must decide whether the whole board of directors from the one-tier system can be compared to the oversight board from the two tier-system, whether only outsiders from the board of directors can be compared to the supervisory board (Mac Canna, Brennan, & O'Higgins, 1998), or whether only the monitoring committee from the board of directors can be compared to the supervisory board.

The research described here possesses a long-term character. It was started in 2005 and the data taken into consideration were that which joint stock companies began to publish from March 2001 onwards. The main source of data is a journal called *Business and Court Gazette* (BCG). These studies are still being continued and it is planned to take into consideration some additional aspects, such as the geographical allocation of the

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companies.

The rest of this paper is organized as follows: In section 2, a comparison of the Anglo-American governance model and the two-tier system in Poland is presented; in section 3, some results of previous long-term studies in the area of corporate governance are presented; in section 4, the data source is described; and in section 5, the database and its development; section 6 includes some of the studies' results; and section 7 contains the conclusions.

A Comparison Between the Anglo-American Governance Model and the Polish Two-Tier System

The Anglo-American Governance Model From the Agency Theory Perspective

Board introduction. The board of directors' legal construct was first introduced into American company law in the 1844 Joint Stock Companies Legislation (Brennan, 2006). As has been said by Brennan, it is likely that the legislators then (and now) introduced this legal mechanism with the intention of protecting/safeguarding shareholder investment.

Justification of existence. Fama and Jensen (1983) justified the presence of the board of directors as the result of the dividing up of the decision-making process in the company into four steps: (1) initiation, (2) ratification, (3) implementation, and (4) monitoring. In their opinion, steps (1) and (3) are usually allocated to the same agents and are called decision management, and steps (2) and (4) are also combined under the term decision control. "The function of ratifying and monitoring important decisions is assigned to the board of directors. Such boards also always have the power to hire, fire and compensate the top level decision manager".

Main function. The main function of the board of directors is monitoring. Agency theorists have identified boards of directors as a primary monitoring device protecting shareholder interests. Weisbach described a board as "the shareholders' first line of defense against incompetent management" (Finkelstein & D'Aveni, 1994, p. 1081).

From an agency's perspective, boards are agents for shareholders. From this perspective, boards exist to monitor management performance and to protect shareholders' rights and interests (Maullette & Fowler, 1992, p. 1014).

According to Molz (1985), control is one of the fundamental responsibilities of the board of directors. He distinguishes between feedforward control and feedback control. Feedforward control is future-oriented, and takes corrective actions prior to problem development. It is an anticipatory control mechanism. Feedback control is used after the action to be controlled has been completed; the completed results are compared with a standard.

Other functions. Apart from this main function, the board of directors additionally possesses other functions. These are, for example: monitoring the CEO, monitoring strategy implementation, planning CEO succession, and evaluating and rewarding the CEO/top managers of the firm (Hillman & Danziel, 2003).

The next function of the board is the approval of management proposals concerning company development. Management submits policies, strategies, and programs to the board for discussion and authorization (Molz, 1985, p. 89). The board does not initiate any enterprise and corporate strategy, but acts as a yes/no or go/no-go control point.

This "review and approve" concept is consistent with the "Principles of Corporate Governance and Structure: Restatement and Recommendations" proposed by the American Law Institute. It characterizes the duties of the board as follows (Molz, 1985):

(1) Select, evaluate, remove, and replace the principal senior executives;

(2) Monitor the conduct of the corporation's business to determine whether such conduct is consistent with corporate plans and policies and the standards of the corporation;

(3) Review and approve major corporate plans and policies;

(4) Review and approve major commitments of corporate resources and changes in corporate accounting standards.

The next important board function is to advise. According to Lehn, Patro, and Zhao (2009), apart from monitoring the performance of the management, advising managers concerning the firm's business strategy is the board of directors' second main function.

Another function of the board which is consistent with the agency theory is the assessment of information contented in financial reports. Vafeas (2005) described this function in the following way: "Corporate boards in general, and audit committees in particular, are responsible for monitoring the information contained in financial reports".

Insiders and outsiders. Although Fama and Jensen (1983), and Molz (1985) assigned the control function to the whole board of directors, Westphal and Stern (2007) allocated this function only to outsiders as members of board of directors, they stated:

> According to the agency theory outside directors exercise control over top managements' strategic decision making and evaluate management performance. In carrying out their decision control function, directors are expected to ask for the information about the progress of executives in implementing corporate strategies.

Outsiders are also expected to "ratify" management initiatives that promote shareholder interests, whilst blocking or forcing changes in initiatives that do not serve shareholders. Outside directors are especially critical of effective decision control, because they are formally independent of management and thus better able than inside directors to objectively evaluate management proposals and assess overall management performance (Westphal & Stern, 2007).

In a similar way, Conyon and Peck (1998, p. 147) differentiated the roles of inside directors and outside directors in the United Kingdom. A unitary board is characterized by a mix of executive (inside) and nonexecutive (outside) directors. The function of the executive directors is decision management. In contrast, the function of the nonexecutive directors includes decision control.

Sarbanes-Oxley Act. In the United States, boards are composed of inside and outside directors, although the proportions of these two groups are still changing. Prior to the Sarbanes-Oxley Act (SOX), the securities laws did not directly address the board's composition (Linck, Netter, & Yang, 2008). Boards of directors were often dominated by inside directors, although, according to Molz (1985), management theorists identified in the 1970s a shift in the nature of the capitalist system from one characterized as entrepreneurial to one characterized as managerial. This shift from entrepreneurial capitalism to managerial capitalism also saw the growth of corporations and the dominance of boards of directors by managers, either directly or through their influence. After SOX it is possible to identify a shift from boards dominated by insiders to boards dominated by outsiders. According to Linck et al. (2008), the percentage of insider-dominated boards has fallen from 45% in 1990 to about 15% in 2004 in small companies. In large firms, this index has fallen from about 10% to 5%.

As Adams, Hermalin, and Weisbach (2010) have stated, "The vast majority of the literature focuses on

Anglo-American firms. Studies of boards in non-Anglo-American firms and the comparison of boards across countries is, in contrast, an underestimated area".

The Polish Two-Tier Model From the Legal Perspective

The legal regulations concerning joint stock companies are collected in the Code of Commercial Partnerships and Companies. This law was introduced for the first time in 1934, and then modified in the year 2000 in the form that is currently binding. According to the code's regulations, every joint stock company possesses three bodies: a general meeting of shareholders, an oversight board, and a management board.

The management board is composed of one or more members. The responsibility of this board is to manage the affairs of the company and to represent the company. Appointments to the management boards may be made from amongst shareholders or non-shareholders. The members of the management boards are appointed and recalled by the supervisory board, unless otherwise provided for in the company articles. A management board member may be also recalled or suspended by the general meeting of shareholders. Where the management board consists of more than one person, all members shall have the duty and right to jointly manage the affairs of the company, unless the company articles provide otherwise.

In a joint-stock company, there must be a supervisory board. The supervisory board must be composed of no less than three, and in public companies of no less than five, members who are appointed and recalled by the general meeting. This board must exercise the day-to-day supervision of the performance of the company in all areas of the company's activities. The special duties of the supervisory board include appraising the management board's report on the company's activities and the financial statements for the preceding financial year, to the extent of their conformity with books and documents and with the actual state of things, and the management board's motions on the distribution of profit or covering loss, as well as submitting written reports on the findings of the appraisals to the general annual meeting.

The supervisory board may, for the purposes of discharging its duties, inspect all the documents of the company, request reports and explanations from the management board and employees, and audit the position of the company assets.

The company articles may extend the powers of the supervisory board, in particular by providing that the management board must obtain the consent of the supervisory board prior to performing the acts stated in the company articles.

Membership of the management board is separated from membership of the supervisory board. The member of the management board, procurator, liquidator, head of a branch or establishment, likewise a chief accountant who is an employee of the company, legal counselor or advocate shall not sit on the supervisory board at the same time.

The general meeting and the supervisory board may not issue binding instructions to the management board as to the running of the affairs of the company.

The supervisory board shall determine the remuneration of the management board members employed under contracts of employment or other contracts.

Poland is not the only country with the two board system. This arrangement is also used in Austria, Belgium, China, Croatia, the Czech Republic, Denmark, Estonia, Georgia, Germany, Holland, Indonesia, Latvia, Mauritius, and Spain (Adams & Ferreira, 2007). In particular countries there are some differences concerning the detailed arrangement of the dual board system. For example, in Germany, worker representatives have a strong position as members of the supervisory board.

Figure 1 shows a comparison of the Anglo-American governance model and the Polish two-tier model.

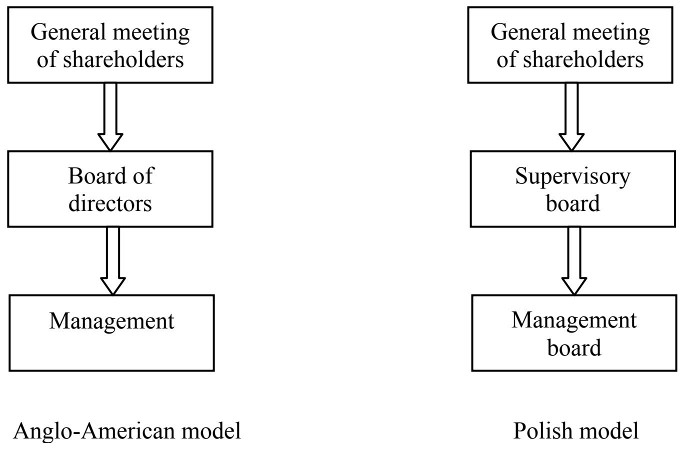

Figure 1. Anglo-American and Polish governance models.

This short review of the board of directors' roles, and also of the oversight board's roles, shows that there are many similarities. The board of directors as a whole can be compared to the oversight board. This assumption is made from the perspective of the agency theory and takes into consideration the fact that, after SOX, the percentage of insiders as board members is still decreasing. This issue is discussed more thoroughly in section 3.

Long-Term Studies of the Boards' Composition

Although board composition has many dimensions, in research the term typically refers to the proportion of inside directors (individuals employed by the firm) and outside directors serving on the board (Ellstrand, Tihanyi, & Johnson, 2002).

Board characteristics and board composition (structure, makeup) have been the subject of intense studies for many years. Many researchers have studied the association between board composition and company performance (Hillman & Dalziel, 2003), although the results were mixed. Several coefficients have been used to describe the composition of U.S. corporate boards: board size, proportion of inside and outside directors, proportion of independent/interdependent directors, representations of affiliated directors (Daily, Johnson, & Dalton, 1999); percentage of representatives form financial institutions, percentage of attorneys (Pfeffer, 1972); and the percentage of busy directors and CEO positions as chairman (Fich & Shivdasani, 2006).

In some studies, the board's composition was considered over a particular period of time. Chhaochharia and Grinstein (2007) studied the structures of U.S. Corporate boards between 1997 and 2003. They were interested in such characteristics as director independence, committee independence, board size, CEO chairmanship, interlocking directorships, director occupation, and multiple directorships. The sample captured about 80% of the total market capitalization of U.S. public firms. Board characteristics were studied three times, in 1997, 2000 and 2003. The authors studied, amongst other things, the change in the boards' characteristics over time. They found that there has been an increase in the percentage of independent directors that enter the boards, an increase in the percentage of firms that have an independent audit committee, independent compensation committee, independent nominating committee, and an independent audit committee. The average board size decreased between 1997 and 2003. There was a slight decrease in CEO-chairman positions. There was a decline in the percentage of interlocked directorates. There was a significant decrease in the percentage of directors from the industrial sector and a significant increase in retired directors, directors from the financial sector, and directors from law firms. There was no increase in the directors' holdings over the years.

Vafeas (2005) studied data on 252 U.S. firms between 1994 and 2000 and, amongst other things, documented several changes in the audit committee and board profile during the sample period. He employed the following audit committee characteristics: percentage of committee insiders, percentage of active business executives, percentage of members with other audit committee experience, audit committee size, audit committee meetings, stock ownership of committee members, mean tenure per committee member, mean directorships for committee members, mean committee memberships per committee member, inside ownership, percentage of board outsiders, and board size. As a result, Vafeas observed a decline in the relative number of insiders serving on the committee, from 3.69% in 1994 to 1.86% in 2000, a substantial increase in the percentage of active business executives serving on the audit committee from 48.47% in 1994 to 59.16% in 2000, and in the level of audit committee activity as approximated by committee meetings from 3.51 meetings in 1994 to 3.90 meetings in 2000. Committees did not change meaningfully in size over the sample period.

Fich and Shivdasani (2006) studied a sample of the 1992 "Forbes 500" list of the largest corporations during the seven-year period from 1989 to 1995. They excluded private, utility and financial companies. The final sample consisted of 3,366 observations for 508 industrial companies across the seven years. A typical board had approximately 11.88 directors, 55.33% of whom were outsiders. The CEO's average age was 58.06. They found a negative and statistically significant relation between the presence of busy outside directors and the market-to-book ratio, and an inverse and statistically significant association between board size and firm performance. On the whole, the sample firms appointed 2,314 outside directors during 1989 to 1995. It was possible to identify a total of 1,676 director departures in the same period. The appointee was, on average, 57 years old and possessed 3.04 directorships.

Linck et al. (2008) also performed a big study of board structure changes. They examined a population consisting of nearly 7,000 firms, and the data were collected from 1990 to 2004. As a measure of board structure they used three values: board size, board independence, and board leadership. They defined board size as the number of directors on the board, board independence as the proportion of the board composed of non-executive directors (outsiders), and board leadership as whether the CEO is also COB (which is also referred to as combined leadership or CEO duality).

They found that both the mean and median CEO age was 53. The average CEO had been in the job for seven years. The mean board size was 7.5. The mean proportion of executive directors on the board was 34.3%, and 21.7% sample firms had an insider-dominated board. The CEO was also the COB in 58.3% of the sample firms. These studies also showed substantially different board structures in small, medium and large firms. For example, in small firms the board size was 5.9, and the percentage of insiders is 41.8%. In large firms the board size was 10.0 and the percentage of insiders is 26.7%.

What is interesting from the point of view of this study is that Linck et al. (2008) also showed the time trends of board independence, board size, and board leadership from 1990 to 2004. Large, medium and small firms showed a downward trend in the percentage of insiders on the board. It was possible to identify a general decline in board size from 1990 to the late 1990s. After about 1997, board size remained relatively flat for a couple of years, at which point it began an upward trend. Furthermore, for small firms the proportion of insider-dominated boards showed a downward trend from about 45% in 1990 to about 15% in 2004.

The studies conducted by Linck et al. (2008) have enabled us to identify the distinct trend of a decrease in the proportion of insiders on the boards of directors, and the percentage of insider-dominated boards. It enabled us to state that the boards of directors, to some extent, have become more similar to the oversight boards from the two-tier system. The same study has enabled us to identify any changes concerning CEO duality. The percentage of boards with a CEO as COB is about 70% for large firms, about 55% for medium, and about 50% for small. These data point out that the traditional United States model of joining these two roles remains unchanged.

It seems that the Sarbanes-Oxley Act (2002) had an important influence on the composition of the boards of directors. As Linck et al. (2008) have stated "Prior to SOX, the securities laws did not directly address board composition, board size, and director qualifications. In addition, courts have been reluctant to mandate board structure because doing so is difficult". This legal flexibility can be interpreted as proof that it is efficient to allow firms to tailor board structure to the functions that are the most important.

Lehn et al. (2009) studied a sample of 134 manufacturing firms that survived from 1935 to 2000. They collected for each firm and year, amongst other things, the data concerning: (1) the board size, (2) the number of inside directors, and a lot of other such information.

The median board size increased from 11 in 1935 to a peak of 15 in 1960, and declined rather steadily thereafter to a low of 11 in 2000. The standard deviation in board size declined substantially from 5.545 in 1935 to 2.682 in 2000, which indicated a convergence in board size over time. The mean number of insiders increased from 5.19 in 1935 to approximately 6 through the 1950s and 1960s. Since then, the mean number of insiders has declined steadily from 6.03 in 1960 to 1.77 in 2000. The decrease in board size from 1960 to 2000 was mainly due to a decrease in the number of insiders. Also, the percentage of inside directors decreased from about 50% in 1945 to about 15% in 2000. Lehn et al. (2009) did not find any strong relationship between the firm's performance and the board characteristics studied.

Huson, Parrino, and Starks (2001) examined the CEO turnover at large public firms over the 24-year period from 1971 to 1994. They found that, during this period, outsider representation on boards, the level of incentive compensation paid to outside directors, and the external pressure on directors by institutional shareholders all increased, whereas the average board size decreased. The sample studied consisted of 1,316 CEOs who relinquished their position at large public firms during the 1971 to 1994 period. In this period the mean board size decreased from 14.3 to 13.0. The percentage of nonofficial directors increased from 73.31% to 78.60%. The stock ownership of institutions increased from 44.79% to 54.41%.

Looking from the agency theory perspective and taking into consideration that the percentage of insiders in management boards still decreased in subsequent years, from the studies described here, it can be assumed that the board of directors from the one-tier model corresponds to the supervisory board in the two-tier model.

Data Source

In Poland, there is a central register of commercial companies called the National Companies Register. Every company at the moment of its registration is introduced into the register and at the moment of liquidation is crossed out. In this register, there are also numerous data about every company introduced, such as: place of incorporation, the sector of activity, the main shareholders, the initial capital and also the management board members, supervisory board members and commercial representatives (procurators).

Apart from entering these data into the central register, it is also published in a special journal called *Business and Court Gazette* (BCG). These data are published when the company is established and introduced into the register, and also in every case where any changes occur in the previously published information. The BCG is available to the public, but is published only in a paper printed version. This is quite a big difficulty because every month about 200 pages of announcements are published concerning joint stock companies alone.

The BCG began to be published in March 2001. Every company that existed before this time was obliged to publish information about its registration and update this information when any changes appeared. Companies which were established after March 2001 must also publish data about their registration, and after that must also publish data concerning every change. The data about the company are published until the moment when the company is liquidated and crossed out from the companies' register.

The Database and Its Development

Database Framework

Since the subject of the studies described here was the composition of supervisory boards and management boards of joint stock companies, the idea arose to move the data concerning the makeup of these bodies from the journal to a computer database.

The database developed comprises a set of three tables. The relationship between the tables is shown in Figure 2. The first table, "Main" consists of nine fields which describe entries in the BCG. "Id" means the number of record in the table. "Position" represents the identification number of the announcement in the BCG. "Krs" is the unique company number. "Person_id" is the unique identification number of the person. The value of "body" can be management board, supervisory board, or procurator. "Function" is used only when the person is appointed as a management board member. It can be CEO, vice-CEO, or Member. "Entry_remove" points out whether a particular person was introduced or removed from a particular position. "Publi_date" denotes when particular information was published. "First-next" informs us whether it was the "first" announcement when the company was established, or a "next" announcement, informing us about changes made.

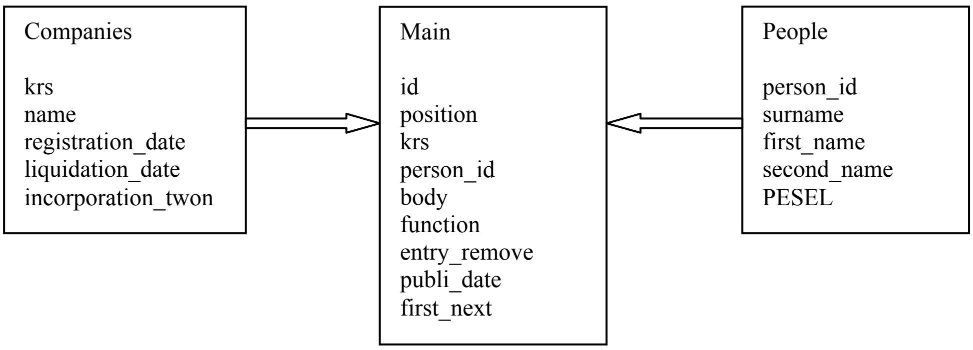

Figure 2. The relationship in the database.

The second table, "People", consists of five fields describing people. This table contains the personal data of every person: "surname", "first_name", and "second_name" with a personal identification number "PESEL", and those who have not been assigned such a number. This, however, makes it impossible to use the PESEL number to search the database and identify the people listed in the table. Therefore, the problem was solved by each person receiving a unique numerical identifier ("person_id") which is generated by the computer system.

The third table is used to identify companies. For every company, it contains the number of the National Court Register ("KRS")—the same as in the first table, the "name" of the company, "registration_date", "liquidation_date", and "incorporation_town". The KRS number is unique for each company, which allows for accurate identification.

As can be seen, the composition of the management boards and supervisory boards is not registered in the database, only changes in their composition. Thanks to this approach, it is possible to identify what was the composition of the supervisory board and management board of every company at any point of time.

Entering Data Into the Database

Since between 500 and 1,000 announcements are published monthly concerning joint stock companies, introducing these data manually into the database would be very laborious and time-consuming. In order to eliminate this inconvenience a procedure was developed which enables us to move the data from the paper announcements onto the computer database. The procedure is executed in the following steps:

(1) Choosing pages from BCG which concern joint stock companies;

(2) Scanning the selected pages and creating .pdf files;

(3) Converting the text from .pdf format to .txt format;

(4) Selecting the text fragments that concern joint stock companies;

(5) Checking the text and correcting mistakes;

(6) Applying PHP scripts for the extraction of text fragments and moving them onto the database;

(7) Checking the data and correcting the mistakes.

An example of a page from BCG, which contains data concerning joint stock companies, is presented in Figure 3. In this case, they are so called "subsequent announcements" concerning changes in boards. As we can see, only a part of this page is occupied by announcements concerning joint stock companies ("Spółki akcyjne"). On the page presented, there are also announcements concerning limited liabilities companies, which in this case are not the subject of interest.

The key element of the process is the conversion of .pdf files into text files, because there are errors which are difficult to eliminate. There are two kinds of errors:

(1) Errors which appear in BCG announcements and are made by the Gazette's editors;

(2) Errors which are made while converting the text from .pdf format to .txt format. These errors result from an inaccurate printing of the text. Inaccurate printing causes text recognition software to make mistakes during text recognition. Errors can be made in particular during the recognition of names, surnames, company names, and foreign languages.

The database was implemented using MySQL open source software and is available via the Internet.

The Current Shape of the Database

As of 30 June 2010, all changes in the composition of boards of directors, management boards, and commercial representatives in joint stock companies incorporated in Poland made during the period from March 2001 had been recorded in the database (i.e., 198,916 announcements). The same number of entries was therefore made in the first ("main") table. These announcements referred to 79,891 people (This is the number of entries in the second table), and 8,454 companies (i.e., the number of entries in the third table). At present, the database is regularly updated to include data from the previous month.

MSiG 220/2008 (3069)

WPISY DO KRAJOWEGO REJESTRU SĄDOWEGO

Poz. 194673. „WAYSS & FREYTAG" SPÓŁKA PROJEKTOWA SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000092830. SĄD REJONOWY DLA M.ST. WARSZAWY W WARSZAWIE, XIII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 18.02.2002.
[WA.XIII NS-REJ.KRS/30062/8/773]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 16 następującej treści:
Dz. 3. Rub. 2. Wzmianki o złożonych dokumentach wpisać: 1 1. data złożenia 15.10.2008 okres 01.01.2007 - 31.12.2007 1 2. 01.01.2007 - 31.12.2007 1 3. 01.01.2007 - 31.12.2007 1 4. 01.01.2007 - - 31.12.2007

Poz. 194674. WBC SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ W LIKWIDACJI. KRS 0000007902. SĄD REJONOWY DLA WROCŁAWIA-FABRYCZNEJ WE WROCŁAWIU, VI WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 18.04.2001.
[WR.VI NS-REJ.KRS/18360/8/828]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 11 następującej treści:
WYKREŚLENIE WSZYSTKICH WPISÓW Z KRAJOWEGO REJESTRU SĄDOWEGO. WPIS NIE JEST PRAWOMOCNY.

Poz. 194675. „WIMART" SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000192699. SĄD REJONOWY DLA WROCŁAWIA-FABRYCZNEJ WE WROCŁAWIU, VI WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 10.02.2004.
[WR.VI NS-REJ.KRS/15743/8/580]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 6 następującej treści:
Dz. 3. Rub. 2. Wzmianki o złożonych dokumentach wpisać: 1 1. data złożenia 12.08.2008 okres 01.01.2007-31.12.2007 1 3. 01.01.2007-31.12.2007 1 4. 01.01.2007-31.12.2007

Poz. 194676. WYTWÓRNIA CZĘŚCI SAMOCHODOWYCH „KOMETAL" SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000193548. SĄD REJONOWY W KOSZALINIE, IX WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 11.02.2004.
[KO.IX NS-REJ.KRS/6347/8/844]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 13 następującej treści:
Dz. 1. Rub. 4. Informacje o umowie wpisać: 1 1. 06.10.2008 R., NOTARIUSZ JOANNA PAPLARCZYK, KANCELARIA NOTARIALNA W KOSZALINIE, REP. „A" NR 4858/2008, ZMIANA: § 25, § 30, § 29, § 37, § 41, § 11, § 20, § 14, § 31, § 19, § 20A, § 21, § 36.

Poz. 194677. XIN FEI TEX SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000314154. SĄD REJONOWY DLA M.ST. WARSZAWY W WARSZAWIE, XIV WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 23.09.2008.
[WA.XIV NS-REJ.KRS/21985/8/591]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 2 następującej treści:
Dz. 1. Rub. 2. Siedziba i adres podmiotu wykreślić: 1. kraj POLSKA województwo MAZOWIECKIE powiat PIASECZYŃSKI gmina LESZNOWOLA miejscowość WÓLKA KOSOWSKA wpisać: 1. kraj POLSKA województwo MAZOWIECKIE powiat PIASECZYŃSKI gmina LESZNOWOLA miejscowość WÓLKA KOSOWSKA wykreślić: 2. miejscowość WÓLKA KOSOWSKA ulica NADRZECZNA nr domu 16 nr lokalu H.5/C25 kod pocztowy 05-552 poczta WÓLKA KOSOWSKA kraj POLSKA wpisać: 2. miejscowość WÓLKA KOSOWSKA ulica ALEJA KRAKOWSKA nr domu 129 kod pocztowy 05-552 poczta WÓLKA KOSOWSKA kraj POLSKA

Poz. 194678. ZAKŁAD GOSPODRKI KOMUNALNEJ I MIESZKANIOWEJ W MALBORKU SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000299365. SĄD REJONOWY GDAŃSK-PÓŁNOC W GDAŃSKU, VII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 15.02.2008.
[GD.VII NS-REJ.KRS/14096/8/610]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 2 następującej treści:
Dz. 2. Rub. 3. Prokurenci wykreślić: 1 1. POGRANICZNY 2. ANDRZEJ WIESŁAW 3. 62031405799 4. ŁĄCZNA - Z DRUGIM PROKURENTEM wpisać: 2 1. SARNA 2. EWA MIROSŁAWA 3. 63031512526 4. ŁĄCZNA - Z DRUGIM PROKURENTEM

Poz. 194679. ZAKŁAD PROJEKTOWANIA MALARNI I GALWANIZERNI „ZUGIL-PROJEKT" - SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000172238. SĄD REJONOWY DLA ŁODZI-ŚRÓDMIEŚCIA W ŁODZI, XX WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 10.09.2003.
[LD.XX NS-REJ.KRS/13540/8/33]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 9 następującej treści:
Dz. 1. Rub. 7. Dane wspólników wpisać: 1 1. BATOR 2. EDWARD 3. 56070206653 5. 11 UDZIAŁÓW O ŁĄCZNEJ WYSOKOŚCI 5.500,00 ZŁ 6. NIE

Poz. 194680. ZONE COMPANY POLAND SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ. KRS 0000291433. SĄD REJONOWY DLA M.ST. WARSZAWY W WARSZAWIE, XII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 30.10.2007.
[WA.XII NS-REJ.KRS/27716/8/969]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 4 następującej treści:
Dz. 2. Rub. 1. Organ uprawniony do reprezentacji podmiotu 1 (dla pozycji: 1. ZARZĄD) PRub. Dane osób wchodzących w skład organu wykreślić: 1 1. LYHNE 2. OLE BALSBY 5. CZŁONEK ZARZĄDU 6. NIE

g) Spółki akcyjne

Poz. 194681. BILFINGER BERGER POLSKA SPÓŁKA AKCYJNA. KRS 0000026184. SĄD REJONOWY DLA M.ST. WARSZAWY W WARSZAWIE, XIII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 09.07.2001.
[WA.XIII NS-REJ.KRS/29944/8/474]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 24 następującej treści:
Dz. 2. Rub. 1. Organ uprawniony do reprezentacji podmiotu 1 (dla pozycji: 1. ZARZĄD SPÓŁKI) PRub. Dane osób wchodzących w skład organu wykreślić: 1 1. LEWANDOWSKI 2. JERZY KAZIMIERZ 3. 43032303057 5. CZŁONEK ZARZĄDU 6. NIE
Rub. 2. Organ nadzoru 1 (dla pozycji: 1. RADA NADZORCZA) PRub. Dane osób wchodzących w skład organu wpisać: 1 1. LEWANDOWSKI 2. JERZY KAZIMIERZ 3. 43032303057

Poz. 194682. CASPIAN CAPITAL TOWARZYSTWO FUNDUSZY INWESTYCYJNYCH SPÓŁKA AKCYJNA. KRS 0000291752. SĄD REJONOWY DLA M.ST. WARSZAWY W WARSZAWIE, XII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 05.11.2007.
[WA.XII NS-REJ.KRS/28509/8/720]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 5 następującej treści:
Dz. 1. Rub. 4. Informacje o statucie wpisać: 1 1. AKT NOTARIALNY Z DNIA 30-07-2008, REPERTORIUM A NR 7266/2008, KANCELARIA NOTARIALNA BEATA OTKAŁA PRZY ULICY ŁUCKIEJ NR 2/4/6 LOKAL 35 W WARSZAWIE, ZMIANA § § 7 UST. 1, 16, 32, 34.
Rub. 8. Kapitał spółki wykreślić: 1. 1300000,00 ZŁ wpisać: 1. 3001000,00 ZŁ wykreślić: 3. 1300 wpisać: 3. 3001 wykreślić: 4. 1000,00 ZŁ wpisać: 4. 1000,00 ZŁ wykreślić: 5. 1300000,00 ZŁ wpisać: 5. 3001000,00 ZŁ
Rub. 9. Emisje akcji wpisać: 1 1. SERIA C 2. 1701 3. AKCJE NIE SĄ UPRZYWILEJOWANE
Dz. 2. Rub. 1. Organ uprawniony do reprezentacji podmiotu wykreślić: 1 (dla pozycji: 1. ZARZĄD) 2. OŚWIADCZENIA WOLI W IMIENIU SPÓŁKI SKŁADA PREZES ZARZĄDU DZIAŁAJĄCY SAMODZIELNIE LUB DWÓCH CZŁONKÓW ZARZĄDU DZIAŁAJĄCYCH ŁĄCZNIE LUB CZŁONEK ZARZĄDU DZIAŁAJĄCY ŁĄCZNIE Z PROKURENTEM. wpisać: 2. OŚWIADCZENIE WOLI W IMIENIU SPÓŁKI SKŁADA DWÓCH CZŁONKÓW ZARZĄDU DZIAŁAJĄCYCH ŁĄCZNIE LUB CZŁONEK ZARZĄDU DZIAŁAJĄCY ŁĄCZNIE Z PROKURENTEM.

Poz. 194683. „CGH INTERNATIONAL" - SPÓŁKA AKCYJNA. KRS 0000111913. SĄD REJONOWY W BYDGOSZCZY, XIII WYDZIAŁ GOSPODARCZY KRAJOWEGO REJESTRU SĄDOWEGO, wpis do rejestru: 17.05.2002.
[BY.XIII NS-REJ.KRS/8501/8/498]

W dniu 22.10.2008 dokonano wpisu do rejestru KRS nr 15 następującej treści:
Dz. 1. Rub. 4. Informacje o statucie wpisać: 1 1. 26.09.2008 R., REP. A NR 4512/2008, AGNIESZKA KACPRZYCKA, NOTARIUSZ W WARSZAWIE, AL. JANA PAWŁA II 61/215, ZMIANA BRZMIENIA § 6, § 10, § 14; ZMIANA TYTUŁU DZIAŁÓW II, III; SKREŚLENIE § 9. PRZYJĘTO TEKST JEDNOLITY SPÓŁKI.
Dz. 3. Rub. 1. Przedmiot działalności wykreślić: 1 1. 28 11 PRODUKCJA KONSTRUKCJI METALOWYCH I ICH CZĘŚCI 2 1. 28 21 Z PRODUKCJA CYSTERN, POJEMNIKÓW I ZBIORNIKÓW METALOWYCH 3 1. 28 75 PRODUKCJA WYROBÓW METALOWYCH GOTOWYCH, TJ. OSPRZĘTU DO PRODUKOWANYCH KONSTRUKCJI METALOWYCH, CYSTERN, POJEMNIKÓW I ZBIORNIKÓW METALOWYCH 4 1. 50 20 A OBSŁUGA I NAPRAWA POJAZDÓW SAMOCHODOWYCH 5 1. 51 4 SPRZEDAŻ HURTOWA ARTYKUŁÓW UŻYTKU DOMOWEGO I OSOBISTEGO 6 1. 51 8 SPRZEDAŻ HURTOWA MASZYN, SPRZĘTU I DODATKOWEGO WYPOSAŻENIA. 7 1. 51 8 SPRZEDAŻ HURTOWA WYSPECJALIZOWANA, TJ. SPRZEDAŻ TECHNOLOGII I LICENCJI W ZAKRESIE PRODUKCJI ZBIORNIKÓW, OSPRZĘTU I KONSTRUKCJI METALOWYCH 8 1. 51 8 SPRZEDAŻ HURTOWA NIEWYSPECJALIZOWANA, TJ. SPRZEDAŻ HURTOWA ZBIORNIKÓW, CYSTERN, KONSTRUKCJI METALOWYCH, GOTOWYCH WYROBÓW METALOWYCH I HUTNICZYCH 9 1. 60 24 TOWAROWY TRANSPORT DROGOWY. 10 1. 63 11 PRZEŁADUNEK TOWARÓW 11 1. 63 12 C MAGAZYNOWANIE I PRZECHOWYWANIE TOWARÓW 12 1. 71 21 Z WYNAJEM ŚRODKÓW TRANSPORTU LĄDOWEGO 13 1. 71 22 Z WYNAJEM ŚRODKÓW TRANSPORTU WODNEGO 14 1. 71 3 WYNAJEM MASZYN I URZĄDZEŃ 15 1. 72 10 Z DORADZTWO W ZAKRESIE SPRZĘTU KOMPUTEROWEGO 16 1. 72 10 Z DZIAŁALNOŚĆ W ZAKRESIE OPROGRAMOWANIA 17 1. 74 13 Z BADANIE RYNKU I OPINII PUBLICZNEJ 18 1. 74 14 A DORADZTWO W ZAKRESIE PROWADZENIA DZIAŁALNOŚCI GOSPODARCZEJ I ZARZĄDZANIA 19 1. 74 30 Z BADANIA I ANALIZY TECHNICZNE 20 1. 74 40 Z REKLAMA 21 1. 80 42 B POZASZKOLNE FORMY KSZTAŁCENIA ZAWODOWEGO DLA DOROSŁYCH W FORMIE KURSÓW I SZKOLEŃ 22 1. 92 DZIAŁALNOŚĆ ZWIĄZANA Z KULTURĄ, REKREACJĄ I SPORTEM 23 1. 70 20 Z WYNAJEM NIERUCHOMOŚCI NA WŁASNY RACHUNEK 24 1. 28 11 C DZIAŁALNOŚĆ USŁUGOWA W ZAKRESIE INSTALOWANIA KONSTRUKCJI METALOWYCH 25 1. 29 24 B DZIAŁALNOŚĆ USŁUGOWA W ZAKRESIE INSTALOWANIA I KONSERWACJI MASZYN OGÓLNEGO PRZEZNA-

MONITOR SĄDOWY I GOSPODARCZY — 96 — 10 LISTOPADA 2008 R.

Figure 3. An example of a page from BCG.

Results of the Study

Board Size

The size of the board of directors has been a subject of studies for many years. Pfeffer (1972) suggested that "Management may be using the board as an instrument with which to deal with the organization's external environment". On the basis of a random sample of 80 corporations drawn from the Dun and Bradstreet Reference Book of Corporate Managements (1969), he found that the number of directors is significantly related to the organization's size, as measured by total sales volume, and to its need for access to the external capital markets as measured by its debt-equity ratio.

The major advantage of large boards is the greater collection of information, which is valuable for both the advisory and monitoring functions of the board. However, the major disadvantage of large boards is the coordination costs and free rider problems (Lehn et al., 2009).

In the database, there are 8,454 joint stock companies. Although currently (June 2010) 6,644 are still operating, the remaining 1,810 were liquidated in the period of time studied. In Figure 4 the changes in supervisory board sizes are presented.

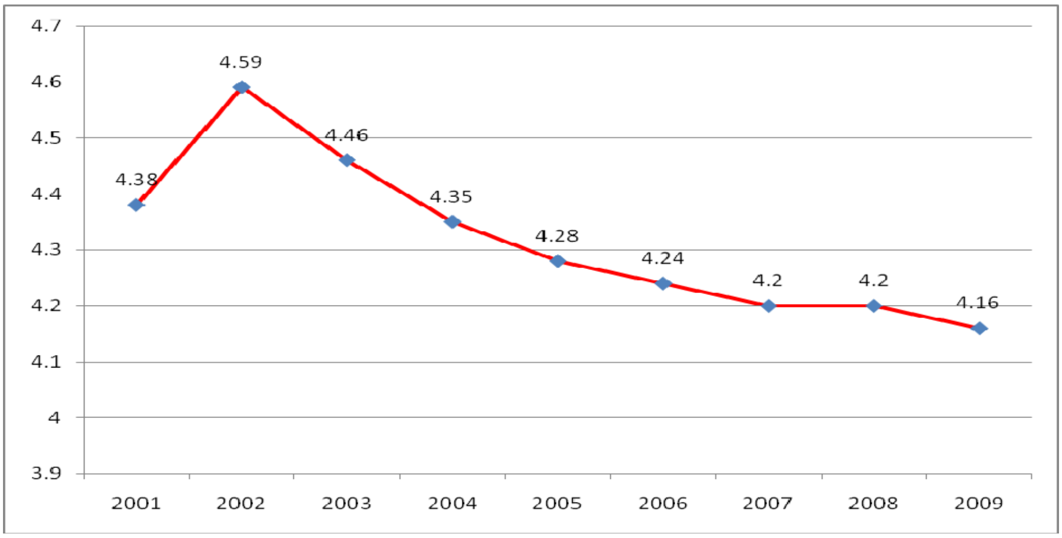

Figure 4. The average number of supervisory board members in subsequent years.

As we can see, the average number of supervisory board members has been decreasing since the year 2002. This could be the result of the tendency for companies to get smaller and smaller. From the research carried out, it is known that board size is linked to company size. This can also mean that supervision itself is still weaker and weaker. In Figure 5 the relationship between supervisory board size and management board size is shown. It can be seen from this that the proportion has decreased substantially over the last few years.

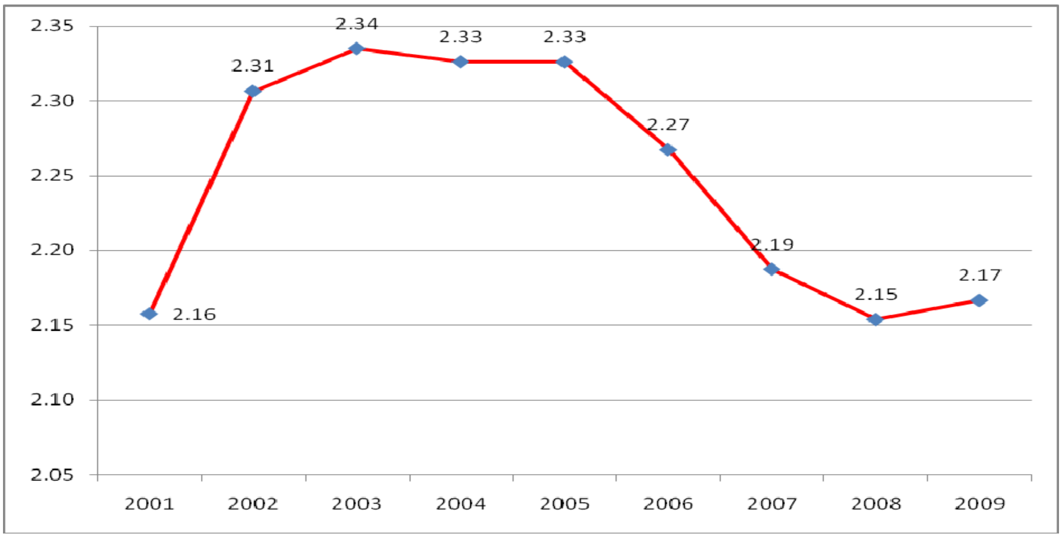

Figure 5. Supervisory board size to management board size in subsequent years.

The frequency of the supervisory board size at the end of 2009 is shown in Figure 6. The board consists of at least three members. Appointing four persons to the board is usually avoided, probably because when the number of members is even, the problem of the balance of votes can appear more frequently.

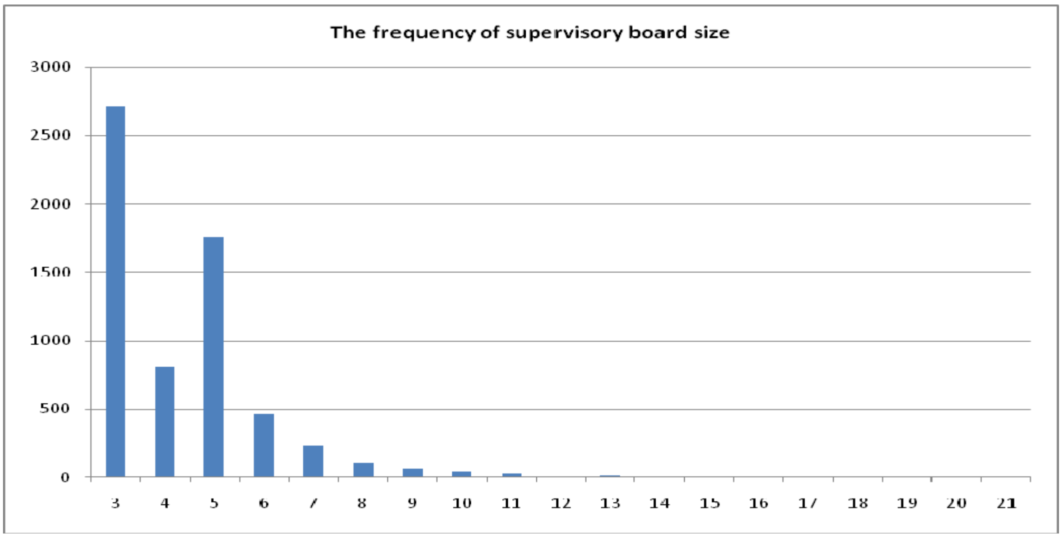

Figure 6. The frequency of supervisory board size at the end of 2009.

Board Members' Age

The age of the board members is usually not treated as an important subject of studies, although some researchers write down information about the boards members' average age as additional information about their composition. In some countries, for example in the Netherlands, there are limitations concerning the maximal supervisory board member age. This maximal age can be as high as 72 (Maassen & Van Den Bosch, 1999).

In the monitoring system described here, it is possible to identify the age of the person who possesses the PESEL number. From the population studied, 87.78% people possess this number. Usually foreigners do not have this number, although this is not a rule.

The average age of people appointed to supervisory boards is shown in Figure 7. It can be seen that from 2002 to 2007 younger and younger people were being appointed to boards, although this tendency changed in 2007.

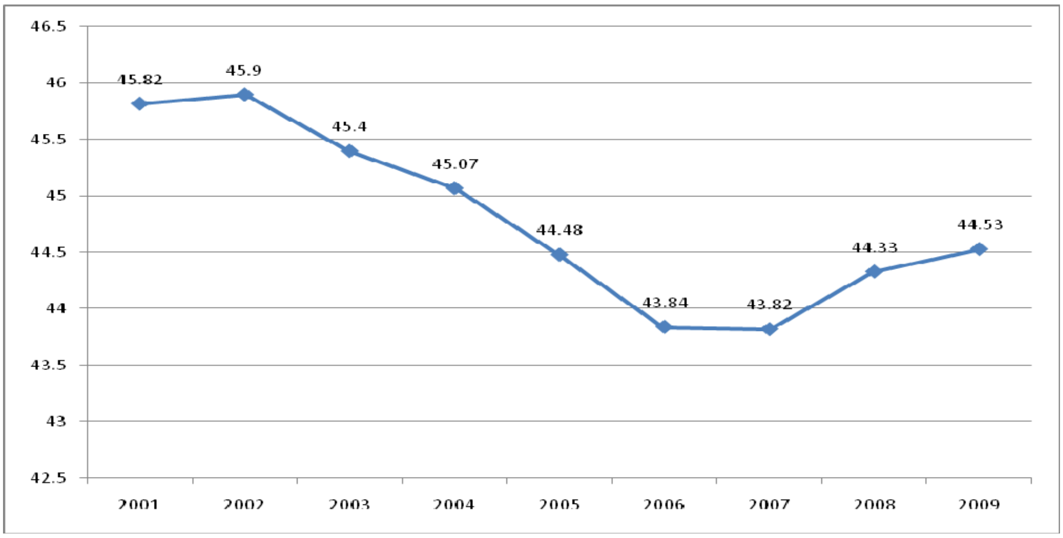

Figure 7. The average age of people appointed to supervisory boards in subsequent years.

The average supervisory board member age in subsequent years is shown in Figure 8. It can be seen that this average age is still increasing.

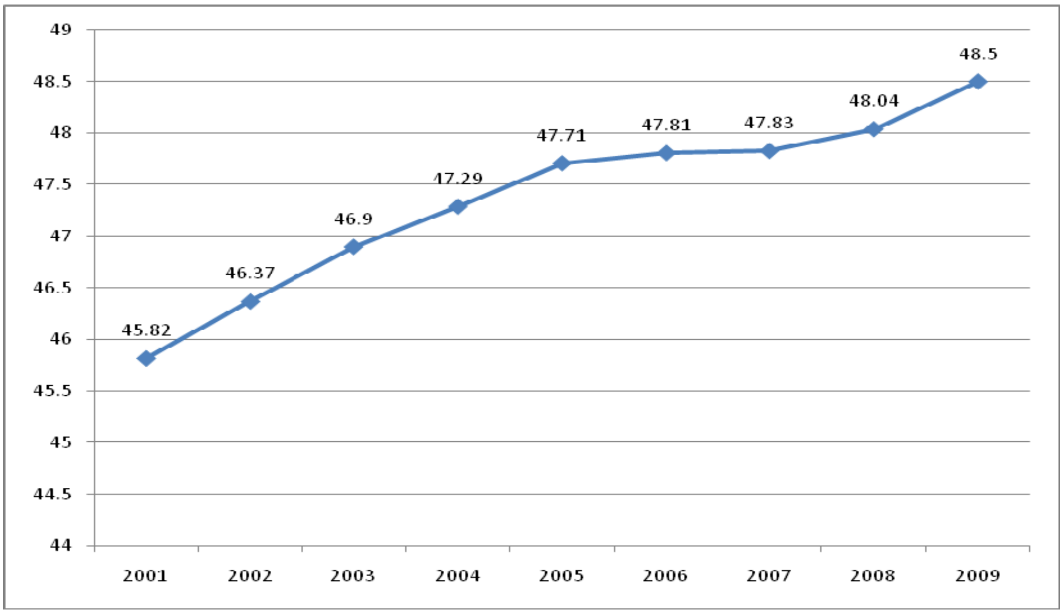

Figure 8. The average age of supervisory board members in subsequent years.

It is also possible to study the age frequency in subsequent years—Figure 9. Every curve here represents one year. As we can see, the shape of the curves is still changing. Between the years 2001 and 2009 it rose, and is still increasing for the group of "young" people aged about 36 years old. Besides this "younger" group, there is a second "older" group aged about 52, which is becoming older and older, and at the same time is decreasing. The "older" group, however, still dominates. Therefore, we can talk here about the "generation change". In the year 2009, the age frequency has a visibly bimodal distribution.

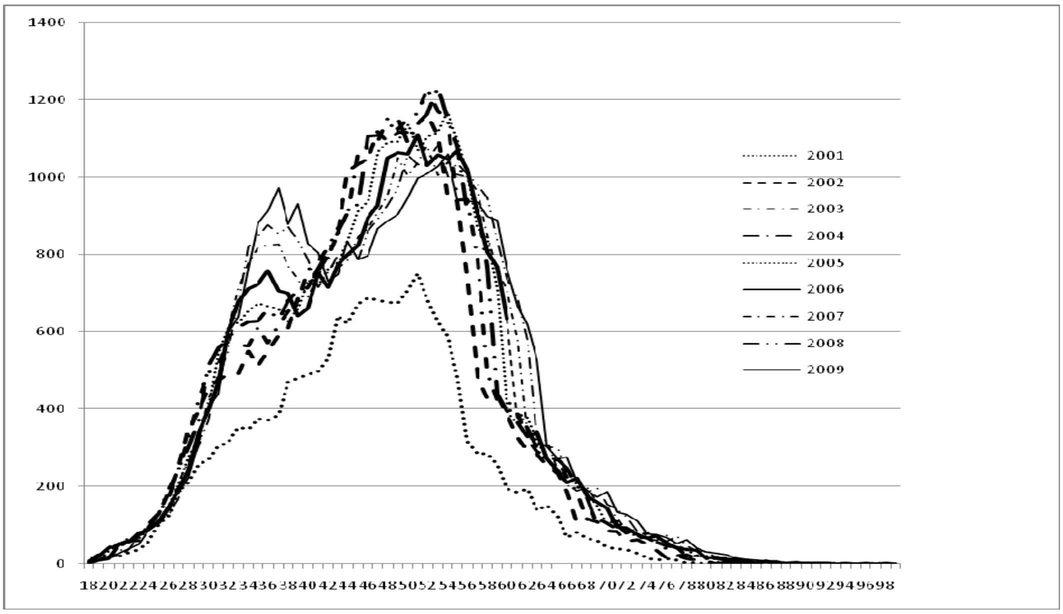

Figure 9. Age frequency of board members.

The Position of Women

The position of women in boards of directors has been the subject of studies for many years, but usually the data were collected from the biggest companies, for example the "U.S. Fortune 500" firms.

Harrigan (1981) studied women's positions in 112 publicly traded firms using a questionnaire. She studied firms whose sales volumes ranged from $1 million to $1 billion. She found that the average probability of a firm electing at least one woman director was 20.54%; the likelihood of a woman director being elected was positively influenced by the firm's size; on the boards of directors of smaller firms there served 6.7% women; on the boards of directors of "U.S. Fortune 500" firms served only 1.4% women. The findings from this survey indicated that a larger proportion of directors within smaller firms are women than within the leading U.S. corporations (Harrigan, 1981).

Thirteen years later, Bilimoria and Piderit (1994, p. 1453) also studied the position of women in "U.S. Fortune 500" firms, and found that in the year 1993 they held 5.9% of the total directorships. Although women at this time constituted 46% of the U.S. work force, only 3% of senior executives in large companies were women.

Twelve years later, in 2005, according to the U.S. Bureau of Labor Statistics, women held 14.7% of the board seats in "U.S. Fortune 500" companies. At the same time, they made up 37% of the managerial work force (Hillman, Shropshire, & Cannella, 2007).

Hillman et al. (2007) examined 950 publicly traded U.S. firms that had the largest sales between 1990 and 2003. They found that organizational size was positively associated with female representation on the board of directors. Although women constituted only a small percentage of board members, this amount increased from 1981 until 2005.

It is also possible to study the women's position in the supervisory boards of Polish joint stock companies, because the PESEL number enables us to identify every person's gender. The participation of women in the supervisory boards is shown in Figure 10. As can be seen, this participation is quite high, is still increasing, and at the end of 2009 was as high as 28.46%.

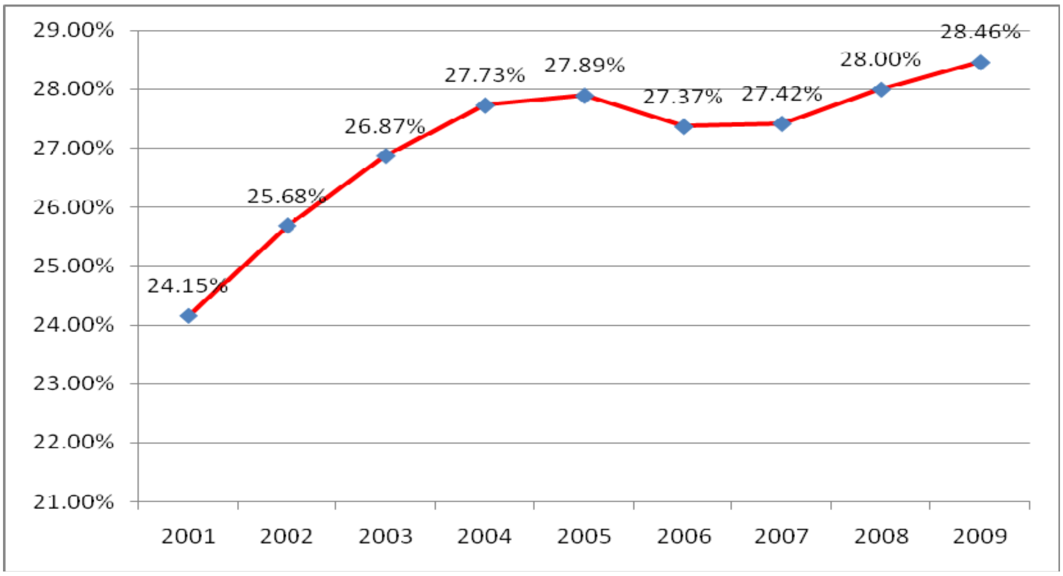

Figure 10. Women participation in supervisory boards.

Interlocking Directorates

A huge amount of literature has been devoted to the studies of interlocking directorates. They were analyzed from historical (Brayshay, Cleary, & Selwood, 2005; Stanworth & Giddens, 1975) or political (Carroll & Alexander, 1999; Brayshay, Cleary, & Sellwood, 2006, 2007; Burris, 1991) perspectives; in different countries (Hughes, Scott, & Mackenzie, 1977; Carroll & Alexander, 1999; Mac Canna et al., 1998; C. Ong, Wan, & K. Ong, 2003; Aguilera, 1998); and as a sociological phenomenon (Mizruchi, 1996; Kono, Palmer, Friedland, & Zafonte, 1998). Very often researchers studied how the directors of business influence the company's performance. It seems that the extent of this phenomenon is similar in different countries, but again usually only big companies were the subject of studies. For example, Harford (2003) studied a sample of 1,091 directors from 91 "Fortune 1000" firms which were targeted from 1988 to 1991. He found that the mean board size was as high as 11.99, and the mean number of additional directorships was 1.94.

Jiraporn, Kim, and Davidson (2008) examined a sample of about 700 U.S. big firms and found that the average board size was 8.61, and the average number of other directorships was 0.86.

In 1995, more than 120 persons held eight or more board seats simultaneously in major American companies, and that number had dropped to only two persons five years later (Yermack, 2006).

Figure 11 shows the mean number of interlocking directorates of supervisory board members in subsequent years. When calculating this number, every supervisory board member of every company was taken into consideration. Because the same person can serve on different boards, every person can be taken many times into consideration. Supervisory board members can also possess additional positions as management board members.

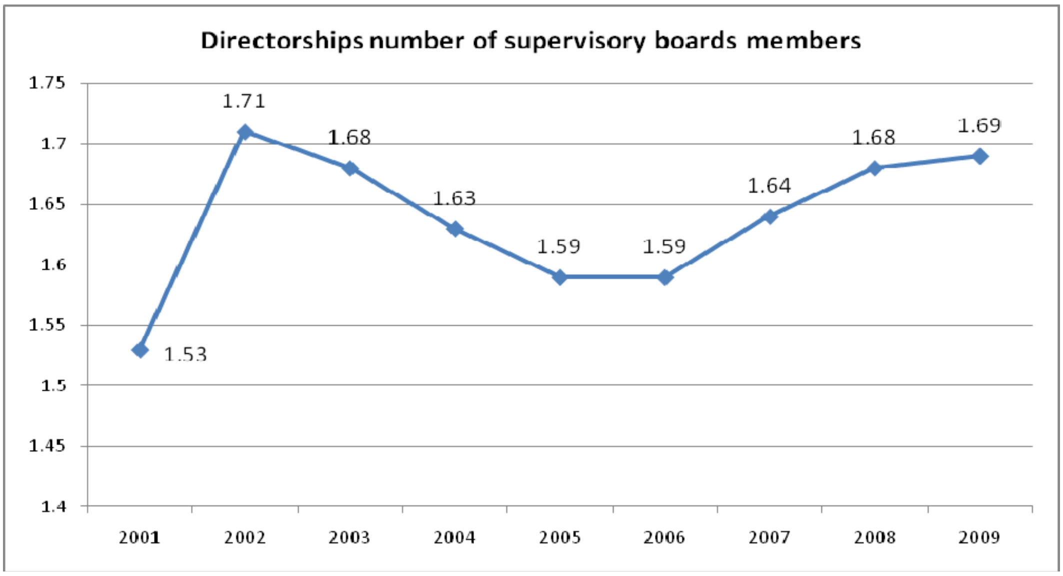

Figure 11. Number of directorships of supervisory board members.

Figure 12 shows the number of directorships for the whole population of management boards and supervisory board members. When calculating this number every person was taken into consideration only once. The figure also shows the number of directorates for men and women. It is easy to see that women possess substantially less directorships than men.

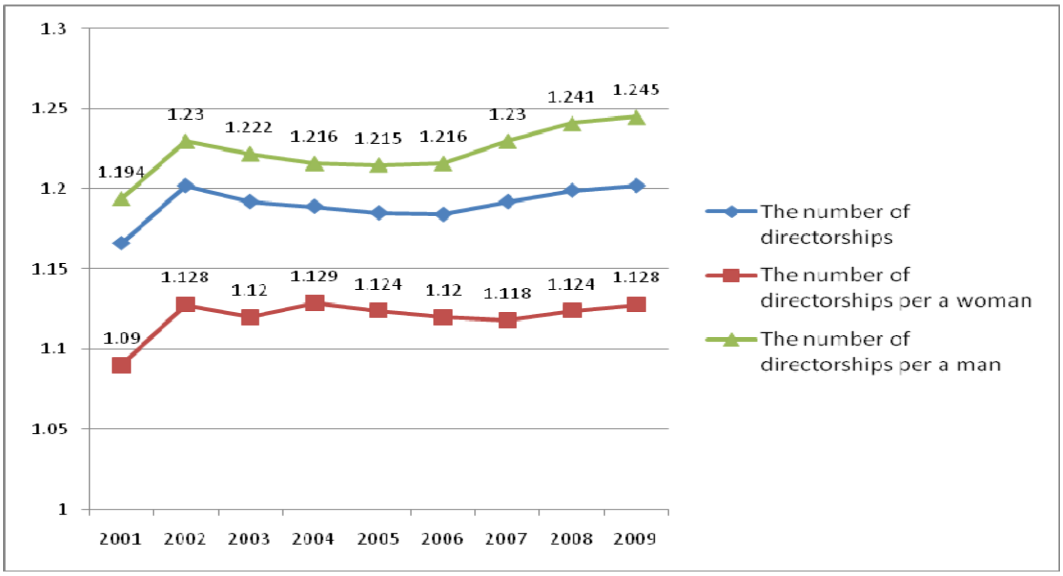

Figure 12. The number of directorships per one person.

This difference between the numbers of directorates is much more visible when we also take into consideration the number of additional directorships. Figure 13 shows what percentage of women is in a group of people possessing a particular number of directorships. The maximal number of directorships per woman is eight, and the same number per man is 17.

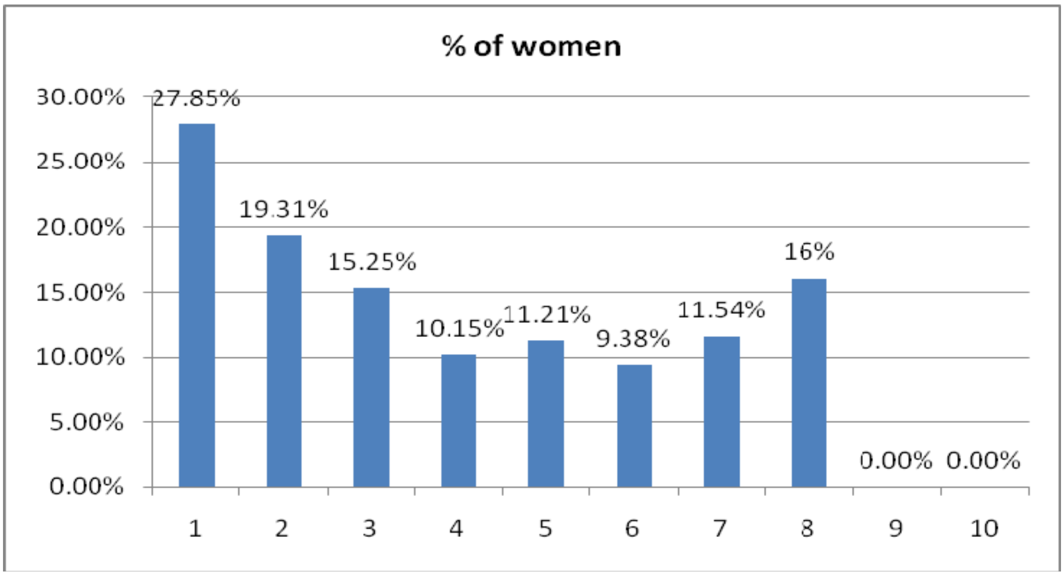

Figure 13. The participation of women in groups possessing a particular number of directorships.

Families in Boards

It is not easy to study the participation of families in company boards using data collected in the database, although a convention has been adopted that, when on a company board at least two people possess the same surname, then this company can be called a family company. Using this assumption, it is possible to calculate the percentage of "family companies" in subsequent years. As can be seen in Figure 14, the percentage of family companies is still growing in subsequent years. From Figure 4 we know that supervisory boards are becoming smaller and smaller. Because, as many researchers have stressed, company size is associated with board size, it is possible to conclude that, in the group of joint stock companies, there are more and more small family companies.

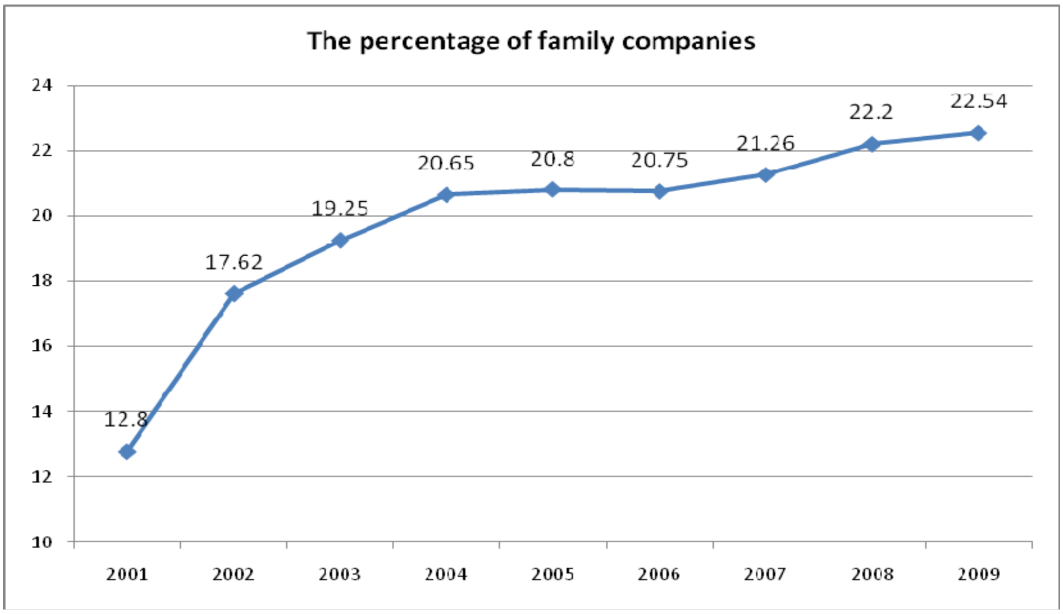

Figure 14. The percentage of family companies in subsequent years.

Average Tenure of Board Members

The database contains data concerning every change in the boards of the companies studied. This enables us, amongst other things, to observe the tenure of oversight board members. This issue is presented in Figure 15.

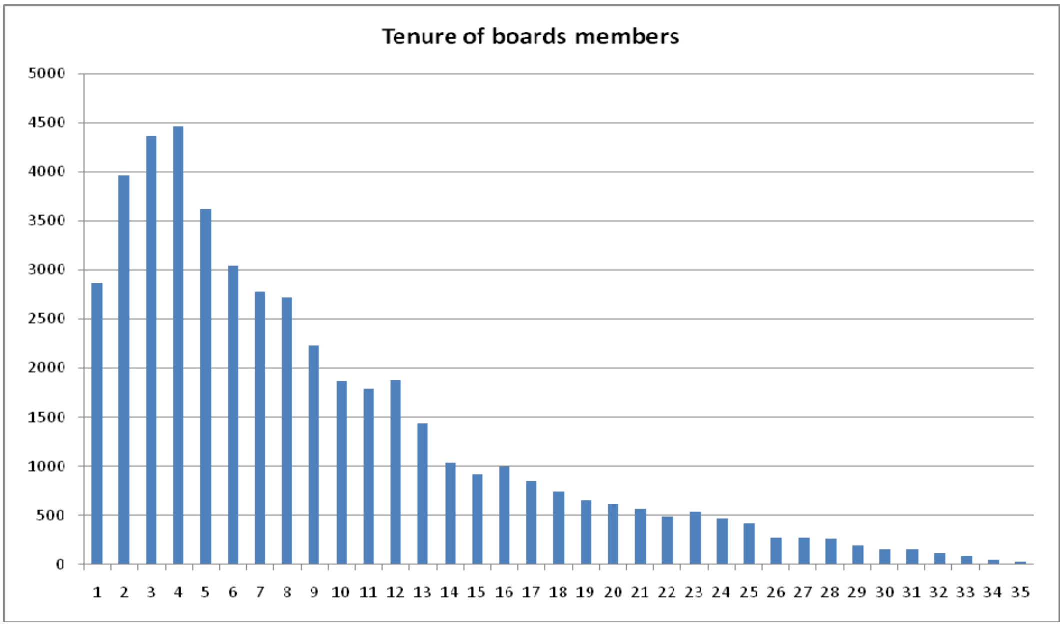

Figure 15. Frequency of tenure of oversight board members.

We have here tenure in quarters, and the number of cases for a particular tenure time at the end of 2009. It can be seen that the highest proportion possesses tenure of four quarters, that is, one year. But there are also many cases where tenure is shorter than one year. It just goes to show that there is a high member fluctuation in oversight boards. The legal binding maximum tenure time is as high as four years.

This seems to be a problem that needs deeper study: Why, in so many cases, was tenure shorter than one year?

Supervisory Boards in Different Kind of Companies

Unfortunately, the company identification number "krs" does not include information regarding which sector the company operates in. Therefore, only the company name has been used to identify its operation area. For example, if the company's name entails the word "production" this company is classified as a production company. Using this assumption, it is possible to compare the supervisory boards of different kinds of companies. Some results are shown in Table 1.

Table 1

Supervisory Board Characteristics of Companies at the End of 2009

	Banks	Plants (factories)	Production enterprises	Insurance companies	Investments funds	All companies
Number of companies	41	49	94	66	140	6,566
Average board size	7.95	4.16	3.90	5.06	3.78	4.15
Average age of board members	52.81	49.34	50.14	49.50	46.68	48.50
Number of directorates per board member	1.75	1.64	1.34	2.29	2.07	1.69
Number of connections with other companies	6.00	2.65	1.33	6.52	4.06	2.87

Banks possess the biggest and oldest boards. Investment funds and production enterprises possess the smallest boards. As for the mean board members' age, it can be seen that the oldest boards are in banks and the youngest in investment funds. Board members of insurance companies possess the highest number of directorates. Also, these companies possess the highest number of connections which constitute interlocking directorates with other enterprises.

Some Hypothesis Testing

The data collected in the database enable us to also verify some hypotheses.

Board members' age and number of directorships. There is an opinion to be found in the literature that supervisory board members should be people with experience and knowledge concerning company management. Usually older people possess more experience. It can then be hypothesized that:

H_1: Older supervisory board members will be more likely to have a greater number of directorships.

To verify this opinion, we can analyze the number of directorates which people of a particular age possess. We can study this dependency for each one of the 31,576 people who were board members at the end of 2009 and who possess a PESEL number enabling us to quantify the person's age.

An estimation of the least-square regression line gives the following result:

$$\overline{Y}_c = a + bX = 1.297 - 0.0018X_i \tag{1}$$

As b is very close to zero, we can say that there is no tendency for the number of mandates to vary as the age of person varies. The Pearson correlation coefficient for this model is very small because $r = 0.031$.

Dispersion of age for family members and the whole population of board members. From an analysis of particular cases of Polish joint stock companies, it can be seen that in family companies supervisory board members are often family members, such as children or grandfathers. It can then be hypothesized that:

H_2: In family companies, the standard deviation of supervisory board members' mean age will be substantially greater than in the whole population of companies.

For family companies, the mean age of family members and, at the same time, board members is as high as 46.72599. Standard deviation = 14.4753.

For the whole population of companies, the mean age of supervisory board members is as high as 48.50206. Standard deviation = 12.12879.

The results of the calculations show that the standard deviation of family members' age is higher for family members than for the whole population of board members.

Number of directorships and economic growth. The shape of the curve in Figure 11 illustrating the number of directorships of supervisory board members suggests that that the number of directorships is influenced by economic growth. When the economy grows, the number of directorships increases; when the economy slows down, the number of directorships falls. It can then be hypothesized that:

H_3: The number of directorships is associated with economic growth measured as the total investment percentage of GDP.

When calculating, the data shown in Figure 11 have been used, as has the total investments as a percentage of GDP and published by Eurostat (This indicator is defined as gross fixed capital formation—GFCF). The years 2001 and 2002 were omitted, because in these years companies started publishing their data and therefore these years are not comparable. As a result, we have data for seven years. The calculation of the regression line gives the following result:

$$\overline{Y}_c = a + bX = 1.43408 + 0.01052 X_i \tag{2}$$

$R^2 = 0.185$, and the Pearson correlation coefficient $r = 0.430$. Since we have a small sample we must use t distribution. For our sample $t = 2.638$. Since 2.638 > 2.571 (*p 0.05), we cannot accept H_0. Thus, we can say that there is reason to believe that there is a relationship between total investment as a percentage of GDP and the number of supervisory board member directorships.

Conclusions

This paper describes an overview system that contains data concerning joint stock companies incorporated in Poland. The structures of the system, its way of operation and some results have been presented. The goal of this paper was not the presentation of more sophisticated statistical studies using the data collected. Only some examples have been shown.

Concerning the future studies and the expansion of the system, two strategies come to mind. The first is to take into consideration the financial situation of every company. This strategy of research is risky, however, because many studies have been conducted to find a link between the board's characteristics and the company's performance. The results of these studies were mixed. The second strategy is to expand the system and introduce data concerning limited liability companies. This strategy is quite easy and can offer a more complete picture of Polish companies, although this strategy is more laborious, because limited liability companies publish about 15 times more announcements every month than joint stock companies.

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