PIOTR URBANEK

Corporate Governance and Top - Management Compensation in Public Companies

Abstract

The purpose of the paper is the presentation of initial findings of analyses focussed on factors determining the level of top-management compensation in Polish companies listed on the Warsaw Stock Exchange. Among others such factors are presented as firm size, complexity of the decision-making process, the form of control over the company, type of corporate governance. Verification of a simple model was carried out on a sample of 195 companies.

An analysis of collected empirical material confirmed a part of formulated hypotheses. Firstly, a form of control over the company determines top-management compensation level. In companies, in which executives hold a dominant block of shares the average compensation is by almost 30% lower than compensation in the remaining companies. Even bigger variations were observed in companies with a dominant foreign investor. Average executive compensation was almost twice higher in them. On the other hand, presence of a strategic domestic investor or the State Treasury did not account for any statistically significant variations in top- management compensation. A hypothesis about correlation between executive compensation and firm size was also confirmed. For the group of companies controlled by executives, this correlation is the strongest when examining sales dynamics. There were not discovered any statistically significant correlation between compensation level and dynamics and relative effectiveness indices (ROE, ROA, profitability of sales)

Statistically significant correlation between executive compensation and absolute profit level and cash flow index (profit plus depreciation) could be observed in all groups of companies with the exception of companies with foreign investor.

1. Introduction

A growing interest in issues connected with compensation of top-management heading the largest corporations can be observed for several years. One of reasons for such interest is the fact that the compensation level and dynamics do not frequently show any relationship in absolute and relative terms with corporate performance. It is confirmed by numerous empirical studies carried out primarily in U.S. and British companies.[1] The compensation is treated more as a fee, to which managers are entitled no matter what happens, than as a way of motivation to act effectively. It is also stressed that benefits received by managers significantly surpass benefits received by other groups linked with the company' s activity such as employees, shareholders, suppliers, customers, etc.[2]

It can be also seen that the gravity point in discussions concerning the compensation of management board chairmen is focussed primarily on debates on the level of compensation, whereas a much more significant issue such as a basis on which the compensation is determined remains outside the field of interest of media, trade unions, political institutions, and so on. An effect of discussions conducted in Poland is an attempt made by the Parliament to restrict directors' pay in state-owned enterprises and joint stock companies belonging to the State Treasury.

The interest shown in executive compensation has its origins in development of the so-called alternative theories of a firm including, in particular, the managerial theory and the behavioural theory. A key thesis appearing in these theories is a statement that the process of separating ownership from control takes place in contemporary corporations with dispersed ownership. Pioneer studies in this field carried out by Berle and Means became

---

[1] M. C. Jensen, K. J. Murphy, *Performance Pay and Top-Management Incentives*, 'Journal of Political Economy' 1990, vol. 98, no. 21, pp. 225-264; P. Gregg, S. Machin, S. Szymanski, *The Disappearing Relationship Between Directors' Pay and Corporate Performance,* British Journal of Industrial Relations, March 1993; L.R. Gomez-Mejia, H. Tosi, T. Hinkin, *Managerial Control, Performance and Executive Compensation*, Academy of Management Journal, 1987, vol. 30, no.1; M. Bloom, G.T. Milkovich, *Relationships Among Risk, Incentive Pay, and Organizational Performance*, Academy of Management Journal, 1998, vol. 41, no.3.

[2] A. Bruce, T. Buck, *Executive Reward and Corporate Governance*, in: K. Keasey, S. Thompson, M. Wright (ed.), *Corporate Governance. Economic, Management, and Financial Issues*, Oxford University Press, 1997, pp. 80-102.

a basis for further analyses of the issue concerning separation of ownership and control over the company.[3]

Although shareholders have a formal control over large corporations, they do not perform such control in practice. The reason for it is a dispersal of shares among a big group of small shareholders, which hampers communication among shareholders considerably and leads to losing an individual influence on the company' s performance. A reflection of it is the removing of shareholders from the decision-making process. It is intensified by lack of possibilities of establishing an effective system allowing to monitor top-management's activity. No individual shareholder has sufficiently strong incentives to incur monitoring costs. Instead, such shareholder attempts to benefit from efforts made by other shareholders, which is known as 'free ride' in the theory of economy. In the situation when pressures exerted by shareholders are absent, executives as the only persons having specialised knowledge necessary to run the company perform an effective control over it.

Owners of capital (shareholders) entrusting executives with capital management expect that the latter will pursue such policy, which will ensure for them maximisation of the market value of invested capital (understood as the discounted current net value of dividends plus the market value of shares multiplied by the number of shares held). Executives, in turn, display natural tendencies to involve themselves in such activities, which will ensure achieving their own goals.

Within managerial theories of the firm there exist many models, whose authors made an attempt to derive the company theory abandoning a traditional assumption about profit maximisation and the company' s goal. The best known models include: the model of W.J. Baumol,[4] which assumes maximisation of sales revenue as the company's alternative activity goal, the model of R. Marris,[5] where the company's goal is its expansion expressed through maximisation of the balanced growth rate, the model of O. Williams,[6] which envisages maximisation of managerial utility function. Profit in these models appears not as a function of the company' s goal but it is imposed as a constraining

[3] See: A. A. Berle, G.G. Means, *The Modern Corporation and Privaty Property*, MacMillan, New York 1932; Galbraith J.K., *The New Industrial State*, New American Library, New York 1967.

[4] Baumol W. J., *Business Behavior, Value and Growth*, New York 1959.

[5] R. Marris, *A Model of the Managerial Enterprise*, Quarterly Journal of Economics, May 1963; R. Marris, *Theory of 'Managerial' Capitalism*, MacMillan, 1964.

[6] O. Williams, *Managerial Discretion and Business Behavior*, American Economic Review, 1963.

condition.[7] In turn, the behavioural theory treats the company as a coalition of different groups, which are linked with its activity in various ways.[8] The management board' s main task is eliminating or cushioning the conflict of interests, which appears among the coalition members, whose interests cannot be fully satisfied due to limited resources possessed by the organisation.

Simultaneously, executives' freedom in setting the corporation's goals comes across certain constraints. What is meant here is primarily the necessity of achieving a satisfactory profit level, which is indispensable for pursing the dividend policy accepted by shareholders, launching investment necessary for the company' s development, ensuring financial safety (liquidity), maintaining good reputation among financial institutions. It is also very important to avoid a drop in market prices of shares, which increases probability that the company will be taken over and implies, simultaneously, a threat of executives' losing their jobs. If these conditions are fulfilled, executives can pursue a policy aiming at achieving their own goals such as: increased income, social benefits, strengthened prestige, power, status, professional achievements, job security, etc., which can be irreconcilable with goals posed before the company by its owners.

Attempts to explain the above relationships and find ways of resolving the conflict of interests appearing between shareholders and executives are most frequently made referring to the agency theory. This theory makes reference to relations commonly existing in everyday life called 'relations of agencies', in which one entity – the principal (contractor) delegates to work another entity – the agent, whose task is to carry out work entrusted by the contractor. The agency theory tries to describe and explicate the above relationships.

Two main problems appear whenever the relation of agencies appears, which are an object of analyses. The first of them appears when the principal' s and the agent' s goals remain in conflict or when the principal cannot check whether the agent behaves appropriately (from the viewpoint of a contract concluded between them). The other problem is the so-called risk distribution problem, which appears when the principal and the agent have different views regarding risk. Explanation of the fact that there exist different attitudes towards risk is based on an assumption that agents concentrate their assets in the company, where they are employed. It causes that they are less inclined to take risk than employers being able to spread their risk through diversification of the

[7] For example, in the form of so-called operational profit in Baumol' s model.

[8] See: H.A. Simon, *A Behavioural Model of Rational Choice*, Quarterly Journal of Economics, June 1995; R.M. Cyert, J. G. March, *Behavioural Theory of the Firm*, New Jersey, 1963.

portfolio of assets. Consequently, the contractor and the agent can prefer to choose different activities according to their preferences regarding risk.[9]

Popularity of the agency theory and possibility of using its assumptions in the corporate governance theory account for the fact that it has become an object of numerous empirical studies. These studies aim at identification of behaviours, which result in divergent interests of shareholders and executives, and at proving that an effective information system and adopting motivation systems based on performance can solve the agency problem, i.e. standardize the system of executives' and company's owners' preferences.

2. Determinants of executive compensation – a general framework

A number of arguments could be found to support a thesis that executive compensation can be correlated with volume of sales. Big and increasing sales enhance the possibility of adopting alternative competition strategies. A low and diminishing market share weakens the company' s competitive position and its bargaining power in relation to its competitors. Banks and financial institutions attach a great deal of importance to the sales index and they are more inclined to finance companies, which are characterised by a high dynamics of this index. Big sales facilitate also human resources management, because they can be offered a better pay and working conditions. Declining sales force out pay constraints and reduction of employment.

Large companies have better possibilities of offering a high compensation. In the situation when the supply of persons with required skills is limited, companies have to offer a competitive pay to attract appropriate employees. There is even used a term that large corporations have their own 'compensation contour lines' in the market of top executives.[10]

Big number of management levels makes it necessary to differentiate compensation of executives at different management levels. Companies use compensation systems, in which pay variations are defined not in absolute figures but according to indices. Hence, the management board compensation in

[9] Eisenhardt K.M., *Agency Theory: An Assessment and Review*, Academy of Management Review, 1989, vol. 14, no.1, pp. 57-74.

[10] L.R. Gomez-Mejia, H. Tosi, T. Hinkin, *Managerial Control, Performance, and Executive Compensation,* Academy of Management Journal 1987, vol. 30, no. 1, pp. 51-70.

a large company has to be appropriately high due to a bigger number of management levels.[11]

A number of premises indicate that top-management compensation can be a function of complexity of the decision-making process, with which they are dealing when running the company. Large corporations demand very specialised skills from their executives.[12] Its effect can be matching compensation more with the type of work to be done than with how well the work has been done. Hence, along with organizational structures becoming bigger and more complex the scope of duties performed by executives becomes more complex as well. Its effect is increasing pay, which must compensate the expending of additional human capital required by jobs.

Secondly, analyzing and assessing information is a basic task performed by executives.[13] Effective accomplishment of this task is a critical factor determining effective performance of the company. Demands posed before top management in this field differ significantly according to the type of activity conducted by the firm. Along with the firm' s growth combined with diversification of assets, the scope and complexity of information reaching the management board members expand considerably. Thus, it can be assumed that firms, in which complex decision-making processes occur, will be inclined to offer higher pay rates for top management to attract persons having appropriate skills required to cope with such a complex task.

An important argument supporting the above formulated thesis is also the fact that supervisory boards can assess more easily complexity of the decision-making process implemented by top management than some kind of the marginal returns connected with executives' work. The latter does not always have to be identified with the firm' s overall performance, which is influenced also by exogenous factors independent of top management.[14] Absence of explicit assessment criteria causes that the supervisory board use substitute criteria such as, for instance, character of the decision-making process.

The next factor, which can be exerting a significant impact of adopted motivation systems is the form of control over the company. More aggressive

---

[11] H.A. Simon, *Compensation of Executives*, Sociometry 1957, 20, pp. 32-35.

[12] N. Agarwal, *Determinants of Executive Compensation*, 'Industrial Relations' 20(1), pp. 36-46.

[13] J. Haleblian, S. Finkelstein, *Top Management Team Size, CEO Dominance, and Firm Performance: The Moderating Roles of Environmental Turbulence and Discretion*, Academy of Management Journal 1993, no. 36, pp. 844-863.

[14] J. Kerr, R. A. Bettis, *Boards of Directors, Top Management Compensation, and Shareholder Returns*, Academy of Management Journal 1987, vol. 30, no. 4, pp. 645-664.

compensation systems linked with corporate performance increase the degree of top management' s financial risk. Hence, it should be expected that in firms controlled by executives top management will be giving preference to compensation systems based on a less risky but more stable criterion such as the firm' s size growth. Simultaneously, top management compensation in such firms will be lower than compensation received in other firms. It is, first of all, due to the fact that the main source of executives' incomes can be incomes resulting from growing prices of shares. Secondly, in the situation when executives fully control the company there exist numerous possibilities of generating high personal incomes, which do not have to take the form of pay. Thirdly, fixing a low pay is some kind of a signal for other shareholders indicating that we are not interested in maximising current incomes and expect the same attitude from other owners when taking a decision about distribution of profit between the dividend and the retained profit.

Different relations should be expected in the firm controlled by investors. First of all, it is underlined that in such companies their owners have motivations and possibilities of monitoring executives effectively.[15] Its effects are, first of all, compensation systems rewarding behaviours given preference by shareholders – effectiveness will be the main determinant of top-management's compensation here. Secondly, analysing relationships between short- and long-term compensation components there should be expected a significant share of the latter in the form of stock options.[16] In the situation when executives can decide independently about the structure of compensation, they probably tend to give preference to the form of stable pay, which is not sensitive to the impact of such exogenous factors as changes in aggregated market demand or fluctuations in the capital market.

A specific strategic investor in conditions of the Polish capital market is the State Treasury. In many joints stock companies listed on the stock exchange the State Treasury has a major block of shares holding a position of the dominant owner. Empirical studies of this issue and effectiveness of corporate governance in case of the State Treasury show that existing legal-institutional frames hamper effective control of such companies.[17] In case of public joint stock companies these difficulties can be intensified due to the fact that these

---

[15] See: A. Shleifer, R.W. Vishny, *Large shareholders and corporate control,* Journal of Political Economy, 1986, pp. 461-484.

[16] See: P. David, R. Kochhar, E. Levitas, *The Effect of Institutional Investors on the Level and Mix of CEO Compensation*, Academy of Management Journal, 1998, vol. 41, no. 2, pp. 200-208.

[17] See: S. Rudolf, T. Stankiewicz, A. Majer, P. Urbanek, *Effectiveness of the State Treasury' s Corporate Governance in Companies Covered by Ownership Transformations*, report on studies commissioned by the State Treasury, 1996 /in Polish/.

companies undergo the ownership transformation process, and the state, in which the State Treasury continues to hold their shares, should be treated as transitional. At the same time, it should be expected that representatives of the formal and dominant owner on supervisory boards can exert a major influence on the form of top-management motivation system.

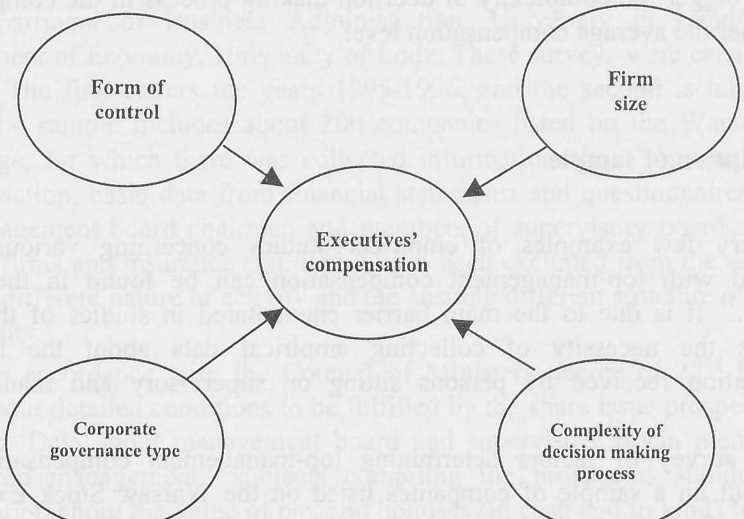
Two approaches can be distinguished when analysing corporate governance types, which characterise relationships between the company' s supervisory board and its management board[18]. In the first of them it is assumed that a conflict of interests exists between the supervisory board and the management board, and the role of supervisory boards boils down to approving decisions and monitoring activities of the management board. Thus, the main goal of supervisory boards is to protect shareholders' interests. The second approach assumes, on the other hand, a convergence of executives' and owners' interests. The supervisory board performs not only control functions, but it also supports the management board' s activity with its knowledge and experience. Interests of the company' s owners are perceived by the management board as one of many goals in the company' s activity. In the process of initiating, approving and controlling definite activities the supervisory board focuses attention on aspects connected with the company' s survival and long-term growth.

The two relations presented above can be a basis for performing a typology of corporate governance.[19] In the first case we are dealing with the supervisory board with financial priority and in the second one with the supervisory board with industrial priority. A definite type of governance can be the next factor determining the form of top-management motivation system. In the case of financial priority the management board' s assessment is made primarily on the basis of financial indices concerning the company' s performance. Supervisory boards with industrial orientation, in turn, should be assessing accomplishments of management boards on the basis of indices showing long – term growth prospects of the company such as outlays on research and development, rate of accumulation, and so on.

[18] See: Jonnergard K., Karreman M., Svensson C., *Classifying board bahavior - an empirical test on large Swedish companies*, Institute for economics forskning, Working Paper Series, 1997/1.

[19] A model permitting to determine corporate governance type and its empirical verification was presented, for instance, in: J. Dzialo, K. Jonnergard, M. Karreman, C. Svensson, P. Urbanek, *Corporate Boards' Line of Reasoning – Comparison Between Corporate Governance in Poland and Sweden*, in: M.A. Hitt, J.E. Ricart and Costa, R. D. Nixon, *Managing Strategically in an Interconnected World*, John Wiley&Sons, 1998, pp. 229-254; J. Dzialo, K. Jonnergard, M. Karreman, C. Svensson, P. Urbanek, *Corporate Governance in Polish and Swedish Joint Stock Companies*, in: *Effectiveness of Corporate Governance in Associations of Capital*, collective work edited by S. Rudolf, University of Lodz Series, 2000 (in Polish).

An attempt to analyse factors determining the level of top management compensation will be based on a simple model (Fig. 1)



The discussion presented above is a point of departure for formulating the following research hypotheses:[20]

H1. Executive compensation level is correlated with the firm size.

H2. Form of the company' s control determines the motivation system form.

H2.1. Compensation in companies controlled by executives will be lower than compensation in other types of companies and the level of this compensation will be correlated strongly with the firm size.

H2.2. Correlation between compensation level and corporate performance should be expected in companies with a dominant strategic investor.

H2.3. In companies with a dominant share of the State Treasury executive compensation does not show correlation with corporate performance; it is fixed as a multiple of average pay in the company or in the national economy.

H3. Corporate governance type determines the form of compensation system.

H3.1. In companies with financial orientation executive compensation is correlated with corporate performance.

[20] It will be possible to verify empirically H3 hypothesis after completing the present stage of studies consisting in collecting questionnaires addressed to members of supervisory boards and management boards of Polish and Swedish companies listed on the stock exchange.

H3.2. In companies with industrial orientation executive compensation is correlated with corporate growth indices.

H4. The bigger the complexity of decision-making process in the company the higher the average compensation level.

2. Description of sample

Very few examples of empirical studies concerning various issues connected with top-management compensation can be found in the Polish literature.[21] It is due to the main barrier encountered in studies of this type, which is the necessity of collecting empirical data about the level of compensation received by persons sitting on supervisory and management boards.

A survey of factors determining top-management compensation was carried out on a sample of companies listed on the Warsaw Stock Exchange. Selection of companies to the analyzed sample was prompted by several factors. First, a dynamic development of the Polish capital market can be observed in recent years. Trends in the capital market are becoming an important index of the country's economic situation and a barometer of moods prevailing among investors. Secondly, the process of ownership transformations is most advanced in companies listed on the stock exchange. A thesis could be advanced that top-management behaviour models in these companies are comparable with those, which can be found in developed market economies. Hence, it is advisable to make attempt at analysing similarities and differences in approach to performance of corporate governance functions in such fields as: assessment of top-management activity and motivation, strategic planning, activities launched in the field of technical innovations, formulation of financial and market strategies, etc. Thirdly, surveys of this group of companies have been carried by a research group composed of faculty members at the University in Lund and the University of Lodz. The analysis conducted here is a continuation of these studies in the field of motivation systems. Fourthly, detailed financial-economic information and data about top-management compensation published in prospectuses and annual reports are available in the case of such companies.

[21] See: R. Milewski, *Privatization of State-Owned Enterprises and Incentives for Managers*, Studia Prawno-Ekonomiczne,vol. LVI, 1997; B. Nogalski, *Top-Management Motivation; Descriptions of Proposed Solutions*, in: *Effectiveness of Corporate Governance in Associations of Capital*, collective work edited by S. Rudolf, University of Lodz Series, 2000 /in Polish/.

The main source of empirical data used in the survey are annual reports published by companies listed on the stock exchange and questionnaire surveys carried out within a joint research project conducted by a research group from the Department of Business Administration, University in Lund and the Department of Economy, University of Lodz. These surveys were carried in two phases. The first covers the years 1995-1996, and the second is taking place now. The sample includes about 200 companies listed on the Warsaw Stock Exchange, for which there was collected information about top -management compensation, basic data from financial statements and questionnaires filled in by management board chairmen and members of supervisory boards.[22] Banks, leasing firms and insurance companies have been excluded from the survey due to their different nature of activity and the ensuing different structure of financial statements.

In accordance with the Council of Ministers decree of 22nd December 1998 about detailed conditions to be fulfilled by the share issue prospectus in its chapter: 'Data about management board and supervisory organ members and about top management,' subjects compiling the prospectus should include information about the value of pay and bonuses (in cash and in kind) for the last finished financial year separately for top executives supervisory board members.

Unfortunately, total amounts of compensation for management and supervisory boards members are presented jointly in many reports accessible to the general public. There are also reports, in which these data are omitted. That is why, the sample on which the survey could be based contains 129 observations for 1997 and 195 observations for 1998. The independent variable was estimates as the average annual compensation of the management board member including the basic pay and premiums.

The firm size was expressed by means of sales, sum of assets, employment level.

Economic effects were measured by means of the following indices: ROE (Return on Equity), ROA (Return on Assets), and sales profitability.

The company' s control type was determined on the basis of the share of face value of all shares held by top executives in the total equity. It was accepted that for companies controlled by executives this index should exceed 10% (it is accepted in the literature that the firm is controlled by top management if none of individual or institutional investors holds more than 5% of all shares in the company). If a single (not individual) investor has more than 20% of shares or votes at the shareholders' general meeting and, simultaneously, if the

[22] Questionnaire data have not been utilised in this work, because the process of collecting questionnaires has not been finished yet.

company does not fulfil the previous criterion of being controlled by top executives, it is accepted that it is a company with a dominant strategic investor. Additionally, a group of companies was distinguished, in which a strategic investor is a foreign entity. Companies, which do not meet the above criteria and in which the State Treasury has its shares, as well as companies, in which the State Treasury holds a dominant position compose the next group of companies.

A very simplified measure of complexity of the decision-making process was accepted at the present stage of studies. From the entire sample of companies there were distinguished those, which operate in the high technology sector (information and telecommunications) assuming that dynamic development of this sector imposes special duties on top management.

3. Results

At this stage of studies statistical analyses were restricted to determining simple relations between selected variables. Particular variables presented in tables denote as follows:

CEO98	- average compensation of top executives
SALE98	- value of net sales
SALE98D	- sales dynamics
EMPL98	- average employment
ASSETS98	- total assets
PRO98	- net profit
PRO98D	- net profit dynamics
PRODEP98	- net profit + depreciation
WAGES98	- average wage in company
ROE98	- Return on Equity
ROA98	- Return on Assets
ROS98	- Return on Sales

An initial analysis of collected empirical material confirmed a part of hypotheses formulated above.

Firstly, a form of control over the company determines top-management compensation level (see: Table 1). In companies, in which executives hold a dominant block of shares the average compensation is by almost 30% lower than compensation in the remaining companies. Even bigger variations were observed in companies with a dominant foreign investor. Average executive compensation was almost twice higher in them. On the other hand, presence of a strategic domestic investor or the State Treasury did not account for any statistically significant variations in top – management compensation. A hypothesis about a higher compensation of top management in companies operating in high technology sectors was also verified positively.

Table 1. Average monthly executive compensation according to company type

No.	Company type	Average pay in zloty	Minimal	Maximal	Number of companies
1.	Entire sample	17,589	2,257	128,875	191
2.	Companies controlled by top management	13,516	3,417	44,907	24
3.	Companies with domestic investor	17,943	3,417	53,306	79
4.	Companies with foreign investor	27,922	5,192	128,875	38
5.	Companies with State Treasury's dominant share	20,615	7,264	66,889	15
6.	Companies with State Treasury's share	18,341	5,206	66,889	49
7.	Companies from high-tech sector	24,561	6,667	75,528	9

A hypothesis about correlation between executive compensation and firm size was confirmed. Simultaneously, for the group of companies, for which the strongest correlation was expected, i.e. companies controlled by executives, this correlation is relatively the weakest when examining correlations by means of absolute firm size (sales volume, size of assets and employment) and it is the strongest when examining sales dynamics. It is convergent with arguments presented earlier. If the management board can have influence on decisions taken by the supervisory board in questions concerning the compensation level, then it will be attempting to use compensation systems based on the firm growth index (growth of sales). It is a less risky and, at the same time, a more stable appraisal criterion.

There were not discovered any statistically significant correlations between compensation level and dynamics and relative effectiveness indices (ROE, ROA, profitability of sales).

On the other hand, statistically significant correlations between executive compensation and absolute profit level and cash flow index (profit plus depreciation) could be observed in all groups of companies with the exception of companies with foreign investor. This result may be due to common practices of fixing the management board's premium as a percentage share of profit generated by the company in a given period. Lack of correlations between top management compensation and profit in companies with foreign investor can be explained as an effect of different financial strategies implemented in these companies, which frequently operate as a part of bigger capital group. It should be also stressed that in accordance with the hypothesis presented above weaker correlations between executive compensation and corporate performance in companies controlled by executives than in other groups of companies were expected by us. Meanwhile, the strength of this correlation is similar and in some cases even bigger. It is difficult to interpret this finding explicitly.

The correlation between executive compensation and average pay in companies differed also from our expectations. Statistically significant correlations could be observed in all groups of companies with the exception of those with the State Treasury's share. Meanwhile, it could be expected that motivation systems in companies controlled by such passive owner as the State Treasury would be built by means of the simplest method – executive compensation as a multiple of the average pay in the company.

4. Summing up

The paper contains a presentation of initial findings of analyses focussed on factors determining the level of top-management compensation in Polish companies listed on the Stock Exchange.

When interpreting the research findings it is necessary to point at certain constraints of the performed analysis resulting from the quality of used empirical material.

First, the analysis omits information about compensations of particular top executives including primarily the management board chairman. Due to unavailability of such data the performed analysis had to be based on the average compensation estimated for all management board members. It is a big simplification, because if the main relationship sought by us, i.e. the relationship between corporate performance and top-management compensation does exist then it should be presumed that the basic category determined on this basis is the management board chairman's compensation. Compensations of the remaining management board members are fixed in relation to the chairman's compensation. Thus, the average compensation for all management board members will be a function not only of corporate performance but also of the number of persons sitting on the management board and coefficients of relations between compensations received by particular executives. Unavailability of data about individual compensations made it also impossible to use such an important factor as broadly understood human capital and length of service for explicating their level.

Only short-term components were taken into consideration when analysing top-management's compensations – pay and bonuses paid from profit. Meanwhile, an increasingly important motivational role begins to be played by long-term components and here primarily by stock options and incomes resulting from ownership. Such compensation components should be also taken into account in further studies.

It was possible to gather data about compensations in 1997 for only 129 companies. It limited considerably the analysis of relations between compensation dynamics and factors, which can affect it. However, it should be expected that annual reports compiled for 1999 will contain all information in conformity with the government decree about reporting obligations of public companies amended in 1998. Supplementing the database with the next year will allow to make an attempt to carry out analyses on cross-sectional-temporal series.

The simplest statistical methods, i.e. analysis of correlations were used for purposes of this paper. Supplementing and verification of data will allow to use more sophisticated quantitative methods. First of all, an attempt will be made to build an econometric model allowing to determine the strength and direction of correlations between executive compensation and factors determining it.

References

Agarwal N., *Determinants of Executive Compensation*, Industrial Relations 20(1), pp. 36-46.

Baumol W. J., Business Behavior, *Value and Growth*, New York 1959.

Berle A. A., Means G. G., *The Modern Corporation and Privaty Property*, MacMillan, New York 1932.

Bloom M., Milkovich G. T., *Relationships Among Risk, Incentive Pay, and Organizational Performance*, Academy of Management Journal, 1998, vol. 41, no.3.

Bruce A., Buck T., *Executive Reward and Corporate Governance*, in: K. Keasey, S. Thompson, M. Wright (ed.), *Corporate Governance. Economic*, Management, and Financial Issues, Oxford University Press 1997, pp. 80-102.

Cyert R. M., March J. G., *Behavioural Theory of the Firm*, New Jersey 1963.

David P., Kochhar R., Levitas E., *The Effect of Institutional Investors on the Level and Mix of CEO Compensation*, Academy of Management Journal, 1998, vol. 41, no. 2, pp. 200-208.

Dzialo J., Jonnergard K., Karreman M., Svensson C., Urbanek P., *Corporate Boards' Line of Reasoning – Comparison Between Corporate Governance in Poland and Sweden*, in: M.A. Hitt, J.E. Ricart and Costa, R. D. Nixon, *Managing Strategically in an Interconnected World*, John Wiley & Sons, 1998, pp. 229-254.

Dzialo J., Jonnergard K., Karreman M., Svensson C., Urbanek P., *Corporate Governance in Polish and Swedish Joint Stock Companies*, in: *Effectiveness of Corporate Governance in Associations of Capital*, collective work edited by S. Rudolf, University of Lodz Series, 2000 /in Polish/.

Eisenhardt K. M., *Agency Theory: An Assessment and Review*, Academy of Management Review, 1989, vol. 14, no.1, pp. 57-74.

Galbraith J. K., *The New Industrial State*, New American Library, New York 1967.

Gomez-Mejia L.R., Tosi H., Hinkin T., *Managerial Control, Performance and Executive Compensation*, Academy of Management Journal, 1987, vol. 30, no.1.

Gomez-Mejia L. R., Tosi H., Hinkin T., *Managerial Control, Performance, and Executive Compensation*, Academy of Management Journal 1987, vol. 30, no. 1, pp. 51-70.

Gregg P., Machin S., Szymanski S., *The Disappearing Relationship Between Directors Pay and Corporate Performance*, British Journal of Industrial Relations, March 1993.

Haleblian J., Finkelstein S., *Top Management Team Size, CEO Dominance, and Firm Performance: The Moderating Roles of Environmental Turbulence and Discretion*, Academy of Management Journal 1993, no. 36, pp. 844-863.

Jensen M. C., Murphy K. J., *Performance Pay and Top-Management Incentives*, Journal of Political Economy 1990, vol. 98, no. 21, pp. 225-264.

Jonnergard K., Karreman M., Svensson C., *Classifying board bahavior – an empirical test on large Swedish companies*, Institute for ekonomisc forskning, Working Paper Series, 1997/1.

Kerr J., Bettis R.A., *Boards of Directors, Top Management Compensation, and Shareholder Returns*, Academy of Management Journal 1987, vol. 30, no. 4, pp. 645-664.

Marris R., *A Model of the Managerial Enterprise*, Quarterly Journal of Economics, May 1963;

Marris R., *Theory of Managerial Capitalism*, MacMillan, 1964.

Milewski R., *Privatization of State-Owned Enterprises and Incentives for Managers*, Studia Prawno-Ekonomiczne, vol. LVI, 1997.

Nogalski B., *Top-Management Motivation; Descriptions of Proposed Solutions*, in: *Effectiveness of Corporate Governance in Associations of Capital*, collective work edited by S. Rudolf, University of Lodz Series, 2000 /in Polish/.

Rudolf S., Stankiewicz T., Majer A., Urbanek P., *Effectiveness of the State Treasury' s Corporate Governance in Companies Covered by Ownership Transformations*, report on studies commissioned by the State Treasury, 1996 /in Polish/.

Shleifer A., Vishny R. W., *Large shareholders and corporate control,* Journal of Political Economy, 1986, pp. 461-484.

Simon H. A., *A Behavioural Model of Rational Choice,* Quarterly Journal of Economics, June 1995.

Simon H. A., *Compensation of Executives*, Sociometry 1957, 20, pp. 32-35.

Williams O., *Managerial Discretion and Business Behavior*, American Economic Review, 1963.

Table 2. Pearson' s correlation coefficients

Variable	Entire sample		Top management controlled companies		Companies with domestic investor		Companies with foreign investor		Companies with State Treasure dominant share		Companies with State Treasure	
SALE98	158	0,427***	22	0,350	78	0,397***	37	0,398**	10	0,843***	42	0,744***
SALE98D	158	-0,057	22	0,386*	78	0,071	37	-0,402**	10	0,051	42	0,100
EMPL98	151	0,271***	19	0,107	75	0,021	34	0,294	10	0,709	42	0,598***
ASSETS98	152	0,482***	22	0,460**	70	0,417***	37	0,503**	10	0,829***	41	0,734***
PROF98	158	0,275***	22	0,656***	78	0,298***	37	0,230	10	0,801***	42	0,671***
PROF98D	158	0,046	22	0,338	78	0,075	37	0,180	10	-0,037	42	0,066
PROFDEP98	158	0,316***	22	0,656***	78	0,317***	37	0,285*	10	0,824***	42	0,677***
WAGES98	116	0,435***	15	0,790***	58	0,443***	30	0,585***	5	0,007	29	0,212
ROE98	158	0,033	22	0,132	78	0,069	37	0,071	10	0,284	42	0,168
ROA98	152	0,082	22	0,390*	73	0,095	37	0,152	10	0,191	41	0,138
ROS98	158	0,030	22	0,381*	78	0,098	37	0,069	10	0,067	42	0,112

N – number of observations, *** $p<0.01$, ** $p<0.05$, * $p<0.1$