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Why is there no Relationship between Ownership Concentration and Performance in Sweden?

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ABSTRACT

Ever since Adam Smith there has been a contention that dispersed ownership in a joint stock company is accompanied by low firm performance. This belief has reached its theoretical hights in agency theory. The aim of the paper is to show that the contention has to be developed in order to be more attuned with empirical data. It will be argued 1.) That the influence of ownership structure upon performance is mediated through mechanisms inside the firm, the strategy being the most prominent; 2.) That performance has to be divided into profit and risk, and into firm performance, using accounting data, and market performance, using share market performance data; 3.) That the ownership structure is not exclusively a factor that influences the firm, but that the firm and its strategy influence the ownership structure through attracting certain shareholders and repulse others; 4.) That ownership structure is but one mechanism of several corporate governance mechanisms and that performance is ultimately influenced by the mix of the mechanisms; and 5.) Those institutional differences, such as culture, traditions, legislation and history, influence the opportunity set of corporate governance structures and therefore the relative importance of ownership structures in influencing the performance of the firm. A data set from Sweden and from the hard years of 1990 is used in order to empirically support the statements.

PROLOGUE: FAILURE OF REPLICATION

I have tried to make a replication of an equation concerning diversification and corporate governance which in main stream research is quite uncontroversial, that is, explaining share market performance with level of diversification and ownership concentration. The expectation from theory and previous empirical, mainly US studies, is that diversification is negatively or curvelinearly related to share market performance (e.g., Belkaoui & Pavlik, 1992; Bettis, 1981; Christensen & Montgomery, 1981; Hoskinsson, 1987; Lubatkin and Rogers, 1989; Rumelt, 1974; Rumelt, 1977), and ownership concentration is positively correlated with share market performance (e.g., Li & Simerly, 1998). Using a data set from Sweden 1990 the resulting equation had an R^2 of 0,04, an F-value of 2,58, which implies that the equation is of a very slight significance. Ownership concentration was not significant, but diversification was of slight significance, but with a positive sign, not the expected negative sign. Thus, a significant failure of replication.

Since replication belongs to the very essence of main stream science, the failure to replicate well-known results has to be explained. At least five explanations to the prediction failure are feasible:

1. Significance bias in publications

2. Not including proper control variables in the equation

3. Improper observations

4. Improper data analysis

5. Flaws in theory and/or in variables utilised

One explanation is that there are many studies that have the same prediction failure, but they have failed to be published. This failure could be due to the researcher having a significant-bias, implying that only studies with supported hypotheses can or should be published, or the paper has been submitted, but the editors and/or the reviewers had the significance-bias and rejected the paper (cf. Beyer, Chanove & Fox, 1995).

Another explanation to the prediction failure is that the equation was too simplistic, disregarding important control variables. That could be the case, but the variance explained should be larger despite any omission of important control variables. More important, however, is that some popular control variables used in previous research, such as industry and size, could be criticised of being improper control variables due to theoretical reasons.

The data set could be obscured by improper observations. The only counter argument is that the data collection has been as careful as possible, for example, several data sources have been utilised. The variables are presented in appendix 1., and critical readers have to evaluate this point by themselves.

The data analysis could be flawed, for example through improper transformations and too simplistic analytical technique. The regression analysis is, to be sure, simplistic, but has been used in most comparable studies, and should therefore be capable of replicating the results.

The main argument of the paper is that the simplicity of theory and some of the variables used, is the main explanation why the Swedish data set from 1990 cannot replicate the well-known results. Focusing on corporate governance, it is argued that

a.) The variable of ownership concentration cannot capture important facets of the ownership structure,

b.) The agency theory disregards alliances or objective interest congruence between single shareholders and managers, which obscures the relationship between ownership concentration, diversification and performance,

c.) The share market consists of actors with different models of valuation and behaviour and thus reacts differently on different performance measurements,

d.) Disregarding the corporate governance structure in its totality makes the research partial, at best.

The paper will argue for these points through the following flow of sections: 1. No correlation could be found between ownership and performance in the Swedish data, and the traditional method of operationalising ownership structure, that of continuos variable measuring concentration, is repudiated; 2. The intervening variable of strategy is examined, but no support for a negative relationship is found; 3. Underlying assumptions of diversification are tested and found to not apply to the Swedish data set, and contrary to most US studies, the relationship between risk and diversification is a ∩-shaped curve; 4. The ownership structure and the size of the firm are correlated with diversification, the findings being largely non-significant, and the repudiation of ownership concentration as a measurement of shareholder control is confirmed; 5. The performance variables and the control variable of industry are scrutinised, resulting in a preference for performance measured as market valuation of equity and a repudiation of industry as a control variable. Performance differences were found between different ownership structures, but not according to agency theory predictions. No relationship was found between diversification and

performance. 6. It is argued that the idea of separation between ownership and control dims the possibility of alliance formation between shareholders and managers, making the relationship between ownership concentration and performance less clear-cut. 7. It is noticed that the firm, its structure and strategy, can influence the ownership structure through shareholders exiting and entering the ownership structure. 8. Close to the very edge of theoretical reasoning is the notion that a prediction failure could not only be caused by the disregard of feed back loops, such as the firm influencing the ownership structure, or the omission of control variables such as industry and size, but also from not including significant corporate governance mechanisms such as organisational structure, the board of directors and the market for managerial labour. 9. The paper ends with the notion that failure to replicate US-studies could be due to the fact that the data set is a non-US data set, that there are institutional differences influencing the relationships between governance structures, the firm and the performance of the firm. In order to create a happy and significant end, an epilogue is offered. It shows that diversification-performance relationship in Sweden 1990 was not in accordance to US results, but that ownership structures can make a difference for performance.

1. OWNERSHIP STRUCTURE INFLUENCE PERFORMANCE

Adam Smith did not like joint stock companies. They could not conduct businesses under changing conditions since the managers were not interested in the wealth of the corporation and therefore were devoid of an *"...unremitting exertion of vigilance and attention..."* (Smith 1776/1981, p.755). Only owners involved in the operations of the firm could be expected to act properly. The idle manager of Adam Smith has experienced a change into a vigilant and attentive manager today, at least according to agency theory. The attention of the manager is, however, directed towards the managers own wealth, not towards the wealth of the corporation or its shareholders. Since there is no reason to assume congruence of interest between the shareholders and the managers, there is still a Smithsonian conflict between shareholders and managers according to agency theory. Thus, the contention that a present owner, i.e., shareholder, is the best guarantee for high performance of the firm is still held high by economists. Operationalising presence of a shareholder with ownership concentration, the basic hypothesis is:

> H_1: Ownership concentration will vary positively with firm performance

To test the relationship one has to operationally define ownership concentration and performance. Ownership concentration has been defined with continuos variables, such as the five largest shareholders

percentage of outstanding shares (Own5), with a Herfindahl measure (OwnH) or an Entropy measure (OwnE), the last two measures having the advantage of considering the whole distribution of ownership shares. Categorical variables, such as all firms being characterised by shareholder control if one single shareholder has excess of 10% of the shares (e.g., Monsen & Chiu & Cooley, 1968), has been widely used ever since Berle & Means (1932) used the notion of shareholder control and management control as variables. The notion is, however, burden with its subjective and arbitrary character. Why has a cut of rate of 5% for a distinction of differences in an ownership structure? What theoretical and/or empirical reasons can be found for any cut of rate? Cubbin & Leech (1983) developed the categorical measurement through including a calculus of the probability of winning a ballot at the shareholder meeting, but their development has had no significant influence on the succeeding research. Short of argument, arbitrary categories are simply representing nothing. There are, however, alternatives within the categorical category.

A different method of creating a categorical variable of ownership structure is to turn to exclusive subjective categorisation. A colleague and I classified independently the 73 Swedish firms that belong to the data set into different ownership categories, with an interrater agreement of 95%. We divided them into four categories. Management controlled firms (Man), which were those that were known to have very powerful top management. Bank controlled firms (Bank), which were firms that due to low solvency was supposed to be heavily influenced by their creditors. Capitalist controlled firms (Cap), which were firms where we could clearly identify a dominating capitalist or a family. Last, but certainly not the least, the two largest business groups of Sweden, the Handelsbank business group (HBG), which are widely acknowledge to be controlled by their management, and the Wallenberg business group (WBG), controlled by one of the few remaining large capitalist dynasties of Europe, the Wallenberg family. The advantage of this subjective method is that much divers information can be included in the categorisation. The disadvantage is that the method is subjective and has to be conducted by raters that contains the information through their experience. It should be noted, however, that subjective classification is less arbitrary than any cut-off rate.

The performance variable is subject to debate, and will be dealt with at length in section 5, but in this opening part I assume that the adequate measurement is shareholder profit since it represents the rewards the shareholders experience.

The ownership data and the performance data are from 1990, a year when the Swedish firms were performing badly. The year of 1990 is presumably a very good year to select since it can be argued that if there are any agency conflicts, they can be assumed to be most obvious during bad years (Lane, Cannella & Lubatkin, 1998). It has been showed empirically, for instance, that highly diversified firms perform less during recession (Lee & Cooperman, 1989).

As can be seen from the correlation matrix in Table 1a, the mean share return (SR) is negative, thus indicating a bad year, but with high standard deviation (StD). The three continuos ownership variables (Own5, OwnH and OwnE) are highly correlated, implying that they contain similar information. The categorical division into different ownership structures is not correlated with the continuos variables, implying that they convey different information. The lack of correlation put the continuos variables into question, There should be, for example, a positive correlation between the Herfindahl index and the Wallenberg business group (WBG), since WBG are known to represent strong ownership control. Additionally one would expect to find a difference in the continuos variables when comparing the two financial groups, WBG and HBG, since they differ in ownership control. Finally, the continuos variables do not indicate the presence of management control (Man) as acknowledged by the two raters. An ANOVA showed no significant difference between the different categories when it concerns the continuos variables of ownership concentration. We therefor conclude that subjective categorisation as made in this paper is superior to objective continuos variables. For the sake of comparison with main stream research, the most commonly used concentration measurement, the Herfindahl measurement (OwnH) is, however, retained in the paper.

The expected correlation between ownership concentration and performance is not present when using continuos variables. The categorical variable shows that bank controlled firms perform worse and the HBG perform best. The low performance of bank controlled firms could be the reverse causality, bad performance throwing the firm into the arms of the banks. The high performance of HBG is surprisingly since the group is acknowledged to be controlled by its management, thus being contrary to the Smithsonian prediction. There are, however, only four corporations in that category, making the correlation haphazard. On the other hand, those four corporations do not constitute a sample of HBG industrial corporations, but are the very population of HBG firms.

Table 1a: Correlation matrix: Ownership structure - Performance

	M	StD	SR	Own5	OwnH	OwnE	Man	Bank	Cap	HBG	WBG
SR	-35,6	23,2	X	0,09	0,09	-0,16	-0,3	-0,25*	0,15	0,27*	0,10
Own5	0,72	0,17	X	X	0,81***	-0,73***	-0,07	0,13	0,16	-0,07	-0,16
OwnH	0,28	0,20	X	X	X	-0,92***	0,00	0,17	0,1	-0,17	-0,16
OwnE	3,54	1,15	X	X	X	X	-0,02	-0,15	-0,06	0,16	0,08

†p<.1; *p<.05; **p<.01; ***p<.001

Table 1b reveals the analysis of the Smithsonian hypothesis.

Table 1b: Regression: Ownership structure - Performance

	Own5	OwnH	OwnE	Man	Bank	Cap	HBG	WBG	Const.	F-value	adj. R^2	D-W-test
SR	12,74 (0,09)								-44,73***	0,59	-0,01	2,11
SR		10,60 (0,09)							-38,48***	0,61	-0,01	2,12
SR			-3,28 (-0,16)						-23,92**	1,87	0,01	2,13
SR				-5,99 (-0,12)	-19,52* (-0,34)		20,88† (0,21)	-1,59 (-0,03)	-30,48***	3,35*	0,12	2,20

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

Inspecting the R^2 column reveals that the last equation is the most powerful equation when considering explanatory value. This is the equation using the categorical ownership variable (the capitalist ownership dominated structure is represented by the other categorical variables having the value of 0).

The only categorical variable with acceptable significance was Bank, indicating that bank control compared to the excluded variable of capitalist dominated ownership structure had a significantly negative performance. The HBG, the management controlled business group, had an almost significant positive performance. This analysis does not support the Smithsonian hypothesis that ownership structures with weak shareholders, such as management controlled firms (Man) and the financial group controlled by its management (HBG), are the worst performers.

In this opening part it has been found that continuos measurements do not sufficiently represent the intricate character of ownership structure, at least not when considering Swedish ownership structures. Additionally, there was no positive correlation between performance and shareholder control. Thus, the Smithsonian hypothesis cannot be supported. The prediction failure could, however, be caused by the omission of other relevant factors influencing the performance of the firm. One of these factors is the strategy of the firm

2. STRATEGY INFLUENCE PERFORMANCE

An enormous literature has investigated the strategy - performance relationship (Datta, Rajagopalan & Rasheed, 1991; Grant, Jammine & Thomas, 1988). The diversification era in US during the 60's and the 70's fostered a voluminous research effort in trying to explain why firms diversified, and if the diversification was successful. The 90'ies has experienced a counterreaction in the economy towards more business-focused strategies.

Diversification has been suggested to be negatively associated with both ownership concentration and performance. The basic idea has been imported from finance theory arguing that diversification, representing a diversity of industry engagements in one single corporation, is driven by an intention by the managers to reduce the risk of the firm. In a manner analogous to the prediction of conventional finance theory that risk is traded with a profit bonus, strategy researchers have hypothesised that unrelated diversification reduces the volatility of profit at the expense of the control capacity of management, causing profit to be lowered. Some results point towards the qualification that constrained diversification can reduce risk and enhance profit due to the competitive advantage it creates through scale and scope economies (Bettis, 1981; Lubatkin and Rogers, 1989, Belkaoui & Pavlik, 1992; cf. Datta, Rajagopalan, & Rasheed, 1991), thus making the performance curve ∩-shaped. Other results, though less frequent in the literature, point towards higher levels of profits being achieved by holding companies (Elgers & Clark, 1980; Hill & Pickering, 1986; Michel & Israel, 1984; Reed & Luffman, 1986), or no relationship between diversification and performance (Bettis & Hall, 1982; Melicher & Rush, 1973; Montgomery, 1985; Varadarajan & Ramanujam, 1987; Rajagopalan & H, 1986), or differences in the relationship if market based or accounting based performance measures are used (Dubofsky & Varadaranjan, 1987).

There are, nevertheless, two main stream hypotheses that can be formulated

H_{2a}: Diversification is negatively correlated with performance

H_{2b}: Diversification is curvelinearly correlated with performance

Rumelt's (1974) classification is the traditional approach of measuring diversification. However, it is burdened by subjectivity of measurement and that it is an ordinal variable. The measurement of entropy is without these deficiencies and is thus preferable (cf. Chatterjee & Blocher, 1992). Additionally, the basic concept of relatedness has been facing a debate (Capon,

Hulbert, Farley & Martin, 1988; Farjoun, 1998; Pitts & Hopkins, 1982; Prahalad & Bettis, 1986; Very, 1993).

The data available in Sweden does not include company data on sales or on the distribution of employees within the different industries, which is the data needed for the entropy measurement. Consequently, a modified Rumelt classification involving five categories (single business (SB), dominant-vertical (DB), constrained (CB), linked (LB) and unrelated diversification (UB)) is employed here, one based on annual reports. A research colleague of mine (Lars Bengtsson) due to his expertise in diversification performed the classification.

The analyses, presented in table 2, indicate no correlation between diversification (Div) and performance (SR). The first equation treats the Rumelt five classes as a continuos variable, the second equation tests the curvilinear relationship, and the third equation treats the different strategies as separate, dichotomous variables, omitting unrelated diversification since it is presumed to be the least performing strategy. An ANOVA indicated no significant difference in performance between the different diversification categories.

Table 2: Regression: Diversification - Performance

	Div.	Div.^{2}	Sb[a]	DB[a]	CB[a]	LB[a]	UB[a]	Const.	F-value	adj. R^2	D-W-test
SR	3,86† (0,23)							-47,24***	3,90†	0,04	2,15
SR	8,63 (0,51)	-0,78 (-0,29)						-53,07***	2,03	0,03	2,14
SR			-10,43 (-0,16)	-11,18 (-0,22)	-1,16 (-0,18)	3,95 (0,07)		-31,57***	1,32	0,02	2,21

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

[a] Single business (SB), dominant-vertical (DB), constrained (CB), linked (LB), unrelated diversification (UB)

Surprisingly, the best of the bad equations are the first, assuming Rumelts classification to be continuos, from low level of diversification, to high levels. Thus, with this simple correlation, we find no strong support for the hypotheses, only a very slight support for a positive relationship. One reason to the prediction failure, however, could be that the underlying theoretical assumptions are violated. Next section deals with the assumptions of risk and performance.

3. DIVERSIFICATION INFLUENCE RISK

The diversification-performance hypotheses, based on finance theory (H_{2a}) or the scale and scope argument (H_{2b}), assume certain correlations between risk, diversification and performance. Finance theory assume that diversification reduce performance since 1.) it is assumed that risk is rewarded, i.e., a positive correlation between risk and performance, and 2.) that there is a negative correlation between risk and diversification. The modification made in H_{2b} is that risk can be reduced by a certain level of diversification, thus predicting a curvilinear relationship between diversification and risk. The hypotheses that have to be confirmed for the diversification - performance hypotheses to be conceivable are:

H_{3a}: Risk is positively correlated with performance

H_{3b}: Diversification is negatively correlated with risk

H_{3c}: Diversification is curvelinearly correlated with risk

Inspecting table 3a one notes that the single relationship between systematic risk (SysR) and share return (SR) is negative, quite contrary to the axiom of risk being rewarded. Not significant is the relationship between unsystematic risk(UnsysR), total risk (TotR) and share return. Note, however, that risk is a three-year measurement but share return is only a one-year measurement. The conclusion is, nevertheless, that during recession periods it appears, at least in Sweden, to be more rewarding to have less risky assets. Additionally, there are indications of negative relationships between diversification and risk, but the hypothesis cannot be accepted since none of the correlations are significant. Table 3b indicates that if there is any curvilinear relationship between risk and diversification, it is quite contrary to all well-known predictions (cf. Barton, 1988), it is increasing and reaching its top at the strategy of constrained diversification, and then slowly diminishing.

Table 3a : Correlation Risk and Diversification

	Mean	StD	SysR	UnsysR	TotR	Div.
SR	-35,6	23,24	-,32**	-0,14	-0,13	0,23†
SysR	0,90	0,36	X	0,07	0,23†	-0,17
UnsysR	3,97	1,61	0,07	X	0,95***	-0,18
TotR	25,77	22,64			X	-0,14
Div.	3	1,39				X

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

Table 3b : Curvilinear correlation: Risk and Diversification

	Div.	Div2	Const.	F-value	adj. R^2	D-W-test
SysR	0,27 (1,01)	-0,05† (-1,21)	0,65**	2,92†	0,05	2,00
UnsysR	0,24 (0,20)	-0,07 (-0,39)	4,07***	1,41	0,01	2,16
TotR	9,78 (0,60)	-1,97 (-0,75)	17,95	1,37	0,01	2,19

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

The conclusion from this section is that the assumptions behind the hypotheses of diversification and performance are not met in our Swedish data set. The market risk of a firm is not rewarded with higher share market performance during recession times. This relationship can be obscured, however, by share market performance being an observation from one single, extreme year. The market risk reaches a peak at constrained diversification and then appears to be reduced when approaching unrelated diversification. This relationship cannot be prevaricated with obscured observations since the variables are risk observations which are made on a three year period, and a diversification index which does not change dramatically between years. Thus, the fact that we have picked an extreme year could explain some peculiarities, but there are still some variables such as risk and diversification that does not behave as expected, using main stream theory. We now leave the firms performance and concentrate on a relationship of enduring character in order to escape the criticism of focusing on an exceptional year. That is the case of ownership structure influencing strategy.

4. OWNERSHIP STRUCTURE INFLUENCE FIRM STRATEGY

The correlation between ownership structure, presumably influencing the firm, and performance, being the outcome of the firms actions, has to be intermediated by the firm. Indeed, as expressed by Hill and Snell (1988:588): "...*governance influences firm profitability through strategic choice.*" (emphasis made by the authors) This section focuses on the relationship between ownership structure and the strategy of the firm.

Finance theory explains the level of diversification of the firm with the agency theory argument that it represents the power of managers at the expense of shareholders. Shareholders can manage their investment risk through diversification on the share market, choosing to what extent they will be exposed to firm-specific risk. The manager of the firm, being employed in one single firm, cannot affect its

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investment risk since it is seldom possible to have a diverse set of employment contracts, at least on the top management level. The manager, not the shareholder, has therefor incentives to influence the risk character of the firm. The strategy of diversification is the instrument of powerful managers to manage its employment risk at the expense of shareholder wealth and interest (Amihud & Lev, 1981). Thus, the level of diversification could be an indicator of the power balance between shareholders, preferring low levels of diversification, and the managers, preferring high levels of diversification. Assuming that concentration of ownership imply powerful shareholders, the following hypothesis can be formulated:

H_{4a}: Ownership concentration is negatively correlated with diversification

Size of the firm has been found to correlate with level of diversification, and has thus often been included in equations as control variables. There has to be a reason, however, to the correlation. One argument has been that diversification is only a liable strategy for firms of some size since the strategy demands financial resources of some magnitude. Whether true or not, the argument does not predict a correlation between size and diversification, but predict that with decreasing size, the number of possible strategies to choose among decreases. A better argument is found in agency theory which argues that managers prefer growth ahead of profitability since growth create a large corporation, making it less vulnerable to the market for corporate control (Grant, Jammine & Thomas, 1988). The growth through diversification, adding more and more different businesses lead, according to this argument, to less firm risk and less risk of being subject to corporate raiders. Thus, size should not be regarded as a control variable. It is a variable of very high importance in corporate governance studies since it indicates the power of the management according to agency theory. The hypothesis for size becomes:

H_{4b}: Size is positively correlated with diversification

Finally, as a logical consequence of H_{4a} and H_{4b}, the relationship between ownership concentration and size is as follows:

H_{4c}: Ownership concentration is negatively correlated with size

If these hypotheses are true, then size cannot be considered as a proper control variable in an equation involving ownership concentration and diversification. To visualise the reasoning, the first model in figure 4.1 is the proper one, clearly showing that size cannot be an independent variable when explaining diversification with ownership concentration since size depends on concentration.

Figure 4.1 Size being a dependent variable or a control variable
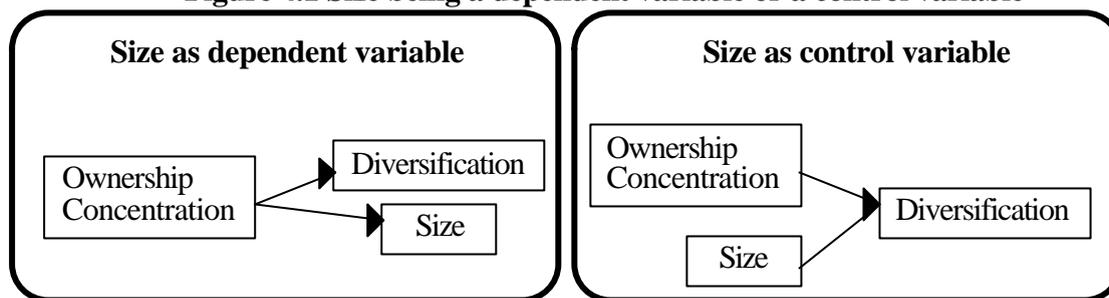
The correlation between the variables is presented in table 4. The correlation between the variable of size and the variables of diversification and ownership concentration measured with Herfindahl index is significant, but the correlation between diversification and ownership concentration, though of right sign, is insignificant. If our conclusion from section 1 is right, that ownership concentration cannot capture important facets of the ownership structure, then we should not be worried but turn to the subjective categorisation. The categorical variables of ownership structure are, however, not correlated with diversification, except for bank controlled firms that have low levels of diversification. Interesting to note, however, is that capitalist structures, known to be controlled by a single capitalist or a family, have a positive sign approaching weak significance and the management controlled firms have no correlation with diversification. On the other hand, when inspecting size, management controlled firms are still uncorrelated, but capitalist firms tend to be small and the business group firms tend to be large.

Table 4. Ownership, size and diversification correlation

	Size	OwnH	Man	Bank	Cap	HBG	WBG
Diversification	0,24*	-,1677	-0,06	-0,22†	0,18	0	0,13
Size	X	-,2994*	0,06	-0,06	-0,38**	0,27*	0,34**

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

The conclusion is a support of agency theory predictions when we use the inferior concentration measurement. When turning to the subjective characterisation of ownership structure, no support could be found for the predictions since presumably strong ownership power, such as the business groups control, were positively correlated with size and not correlated with diversification. The management-controlled firms had no correlation with size or diversification. The overall conclusions that have to be drawn are that correlation analysis is maybe too simplistic, and in support of the subjective categorisation, the concentration measurements cannot be an expression of power. In the next section we therefore increase the complexity of the analysis.

5. PERFORMANCE VARIABLES AND THE CONTROL VARIABLE OF INDUSTRY

The performance of the firm is, to be sure, not an unequivocal phenomenon, but a rather complex one. The possibility to observe performance of the firm in different ways and to use a multitude of different measurements is one possible explanation to the prediction failures in this paper and the ambiguous results found in the diversification literature. Another possible explanation is the use of irrelevant control variables in the regression equations, which are used to withdraw performance variance caused by other factors than ownership and agency. The most prominent variable will be dealt with here, the variable of industry. The two remarks made in this section, the way of observing and measuring performance, and the control variable of industry, could be regarded as methodological remarks. That is, however, only partly true since it is a matter of theory as well. Thus, the aim of the section is not only to improve the method of measurement, but also to enhance the understanding of diversification.

The performance of the firm varies dependent on who the observer is and with what instrument the performance is measured. The paper started its performance measurement with share market performance, the argument being that share market performance is what is important for the principal that influence the corporation, i.e., the owner of the shares. Performance differences between firms, if everything else is the same, are explained by the agency conflict, the management gaining power and wealth at the expense of the shareholders. This is an ideological view of the firm, assuming that the shareholder is the emperor of the firm, the managers being the emperors vassal, and the relationship between these two parties being of outmost importance. This feudal conception of the power structure of the corporation can be contrasted with the stake holder conception of the power structure which regards the firm as a coalition where the managers are simple administrators of the different forces created by the stakeholders. The outcome of the firm is in this conception of the firm a vector of all stakeholder forces. This political perception of the firm, recognising more influential parties within and outside the firm, has to observe several performance variables when judging the efficiency of the firm. Share market value could be of interest for a majority of share market actors. But for a dominant shareholder, with expansion plans for the firm that could be financed by bank loans, a large ROA (return on assets) and a low variance in accounting profit could enhance the shareholders possibility to keep the bank interests low. The state could be interested in huge labour costs and high accounting profits, since it would maximise tax incomes for the state. Labour has the interest of maximising the labour costs. Etc. The distribution of the wealth of the firm is, according to the political perspective, dependent upon all the parties engaged in the firm and

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their relative power. The political perspective would be to prefer rather than the feudal perspective since it does not assume what is truly an empirical statement, that of which relationship of the firm being the most influential. The conclusion to be drawn is that one has to consider the other parties engaged in the firm before one can conclude anything about the power relationship between two of the parties, in this case, the shareholders and the management.

Returning to the feudal perspective on the corporation, the performance variable to observe is still problematic. One has to make a distinction between the performance of the firm, i.e., the profit, and how it is represented on the firm level with the accounting performance and how it is represented on the stock market level with the share market performance. Both these two different representations have their strengths and weaknesses.

Share market performance has as one of its strengths, that it is the ultimate source for shareholder wealth accumulation. It is, though, a bad indicator of performance because: 1.) It represent expectations based on evaluations using rules of thumb in order to value future earnings. Rules of thumb are chosen, not based on maximising behaviour, i.e., all possible rules of thumbs, but on a limited number of rules seeking satisfying solutions. These rules become fashionable, for example, the unemployment numbers as an indicator of the overall health of the economic system. Fashion, or as Elton & Gruber (1984:434) express it, taste determines partially the value of a firm; 2.) the market consists of actors that can be divided - at least - into two categories, the speculator and the industrialist (Keynes, 1936/57), the latter valuing the firm and its future earnings, the former valuing the share market and its mass psychology. Thus, the share value consists of information about both the firm and of the share market, reducing its importance as an indicator of firm performance; and lastly, 3.) share market performance represents only one stakeholders view of performance, the shareholder, disregarding other legitimate stakeholders and their view of performance.

More frequent in the literature is the use of accounting performance, such as Return on Assets (ROA), Return on Investments (ROI), or Return on Equity (ROE). These have the advantage of not incorporating expectations based on rules of thumb, and speculations about market mass psychology. It is an account of previous actions and their observable consequences (Bettis & Hall, 1982). They have the advantages of being frequently used in diversification studies and by practitioners, and this is the case especially for ROA (Farjoun, 1998). But accounting performance has it drawbacks as indicator of performance since 1.) The accounting system producing the accounting performance is not only an

information system, but has at least three different functions, a.) to distribute profit to stakeholders such as the state, the firm and the shareholders, b.) to inform about performance, and finally c.) to account for property rights to capital. Information being not the sole function obscures the information contents of the numbers, for example, that the accounting system is very weak in measuring non-material assets such as brand names and organisational competency. 2.) The accounting system is subject to managers discretion (Watts & Zimmerman, 1986). Thus, the accounting performance is influenced by both prior performance of the firm and of the present actions of the top management team and the board. They could influence the performance in an effort to create and transmit a specific image of the firm and its performance.

Which performance measurement is the proper one? Surprisingly enough, the frequency of theoretical or methodological arguments for choosing a certain performance measurement is not impressive. Scrutinising the very masters of the subject of diversification in the literature, Hill, Hoskinsson and Lubatkin, emphasise this notion. Hill & Snell (1988) used as the performance variable ROA, an average over three years and adjusted for industry means, but no argument why choosing ROA, or why using a three-year average. They had, however, the argument of adjusting for industry because of a need to factor out industry effect. This is very common in the literature, but is a very curious action since industry is the very basis for diversification. It will be dealt with later in this section. Three years later Hill used ROE (Hill & Hansen, 1991) in a study, without an argument why they did not use ROA, thereby making it possible to compare the 1991 study with the earlier study. Hill, Hitt & Hoskinsson (1992) used ROA with the argument that they investigated resource utilisation within the firm, which is '...best captured by a measure of profitability." (ibid.: 511). One has to note that '...best captured...' is not an argument, but a conclusion. ROA was chosen as the best measurement of profitability since 1.) ROE is partly a function of the capital structure, which is a legitimate argument; and 2.) ROI had greater variance than ROA, which is not a valid argument since a higher variance indicates different informational content in ROI than in ROA. A three-year average was chosen since it "...smooths out annual fluctuations in the accounting data". (ibid.: 512), which is true, but still there has to be an argument, be it theoretical or empirical, why three years are chosen. Additionally, a three-year average could smooth out, not only accounting effects, but also important performance effects belonging to firm risk, be it of systematic or unsystematic origin. Since diversification sometimes, and especially when directed towards unrelated diversification, is motivated by risk arguments, the very smoothing out of variance in profitability is to withdraw the factor that the actors of the firm are acting upon.

Using average numbers assume stability in the remaining variables. No article of my knowledge has shown this stability. Especially important is the stability in strategy since the predictions is about a casual relationship between strategy and performance. The stability in strategy in the present Swedish data set where tested on a subsample of the sample (n= 24) where the strategy according to Rumelts categories where observed 1985 by one rater. Using the formula for category differences: $\dfrac{\sum\limits_{i=1}^{n}\left|R_{90i} - R_{85i}\right|}{4n}$, where R_i is the Rumelt classification of the i:e corporation within an n population, as observed the year of 1990 and 1985, respectively, created a deviance value of 0,146, i.e., of all possible deviance's 14,6% was actually realised. Whether this is a deviance that significantly disturbs the equation estimation is not tested here. We restrict us to make the methodological remark that average numbers call for an empirical test of the stability of the other variables.

Returning to performance measurements, Lubatkin (Lubatkin & Shrieves, 1986; Lubatkin & O'Neill, 1987; Lubatkin & Rogers, 1989) and Amit & Livnat (1988) have argued for the use of share market performance using the CAPM since it capture firm-specific risk and systematic risk, and it reflects the shareholders viewpoint. While this is true, it is also true that it contains, as argued above, not only a valuation of the firm, but of the market as well, reducing the informational content of the market performance when it concerns the firm performance implications of a certain strategy. And, as said before, it is to assume without argument the feudal perspective of the firm. But it is indisputable the best argument put forward for an indicator of performance measure.

The low frequency of arguments for the choice of a certain performance measurement and the variety of used performance measurements could be explained by at least three reasons, a.) it could be caused by a tradition; b.) it could be caused by US-researcher only using one data resource, the Compustat and the variables being observed there; and c.) it could be caused by an inductive temptation to drag for significance, observing many variables and picking those with best significance in an equation, sometimes ROI, sometimes ROE and sometimes ROA. There is, however, no point in trying to find an explanation to the high variance of performance measurements used. More important is the conclusion that every variable, including the performance variable, has to have a theoretical or a methodological motivation.

One set of variables that could be suggested as bridging the difficulties of market and accounting performance measurements, though still belonging to the feudal perspective, is market-to-book values.

The share market adjusts its expectations to the firms strategy, which can only be revealed through relating share market performance to accounting performance. The argument is like follows: When managers diversify the firm and a significant amount of share market actors judge the strategy change as decreasing future earnings or decreasing future share value, the dissatisfied shareholders sell their shares and, as a result, the share market value of the firm decrease. After that event, however, the share market value contains the reduction of value due to the inferior strategy and the changes of share market value are due to share market valuation of performance given the inferior strategy. As can be seen in figure 5.1, the firm with a shift to an inferior strategy is punished with a decrease in share market value when the strategy shift occurs, and is then onwards punished with lower value than would have been possible if not changing the strategy. This difference is indicated in the figure with the strategy premium. The most important thing to note, however, is that after the shift the increase in value is the same for the firm with the inferior strategy as it is for the firm without a strategy shift. Thus, if one observe the share market return (defined as = [the increase in share market value during one year + dividends]/ share market value in the beginning of the year), both firms have the same increase in value, and if disregarding dividends, the inferior firm would have higher share market performance due to its lower denominator, the market value at the beginning of the year. For the firm with no strategy change to have superior share market performance, it has to have a larger dividend than the inferior firm, thus compensating for the lower share market value at the beginning of the year. The conclusion is that share market return is not a good measurement of the firms performance since it cannot capture the share markets appreciation or depreciation of the ongoing strategy. The share market performance has to be related to a base that considers the valuation of the strategy. One simple way is to relate share market return to accounting measurements such as capital employed or sales. Another, similar approach, is to use the proxy of Tobin's Q, that is, the ratio of the firms market value to the book value of equity (Farjoun, 1998; Jose, Nichols & Stevens, 1986).

Figure 5.1

Share market valuation differences due to a shift of strategy
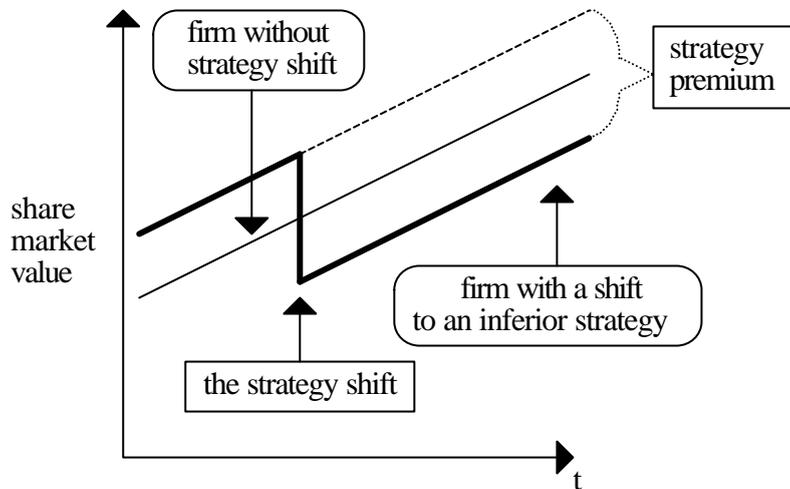
In table 5.1 and 5.2 the different performance measures have been correlated to ownership structure and diversification in a similar mode as in previous sections in order to find out if there are any performance measures that correlate highly with ownership and diversification. Inspecting the R^2-column in table 5.1, one can observe that 1.) the categorical method of measuring ownership structure is more highly correlated with performance than the concentration measurement; 2.) that the performance variance explained is about 0,1, except for average ROA for four years; and 3.) that bank ownership structure is strongly negatively correlated with ROA, indicating that what was regarded as bank controlled firm had had a succession of bad years. The suggested performance variable of share market return/total assets did not increase variance explained, and did only slightly change the significant relationship indicating the management controlled business group (HBG) being high performers and bank controlled firms being low performers. This would indicate that there is a slight difference between performance measures. One should also note that of all performance measurements, ROE does not vary with ownership. Thus, as mentioned earlier, ROE is a function of the capital structure and should therefor be avoided. Capital structure, on the other hand, could be regarded as an expression of governance mechanisms. This will be dealt with later in the paper.

Table 5.1: Regression: Ownership structure - Different Performance measures

	OwnH	Man	Bank	Cap	HBG	WBG	Const.	F-value	adj. R^2	D-W-test
SR	10,60 (0,09)						-38,48***	0,61	-0,01	2,12
SR		-5,99 (-0,12)	-19,52* (-0,34)		20,88† (0,21)	-1,59 (-0,03)	-30,48***	3,35*	0,12	2,20
ROA	0,10 (0,004)						10,71***	0,001	-0,01	2,21
ROA		-2,49† (-0,24)	-5,11** (-0,42)		-1,86 (-0,09)	-1,36 (-0,11)	12,92***	2,46†	0,08	2,32
ROA (4 year)	1,74 (0,08)						11,39***	0,52	-0,007	2,05
ROA (4 year)		-1,79 (-0,20)	-5,73*** (-0,56)		-1,87 (-0,10)	-1,90 (-0,17)	14,05***	5,10**	0,19	2,15
ROE (4 year)	0,74 (0,02)						15,09***	0,04	-0,01	2,14
ROE (4 year)		0,05 (0,003)	-2,99 (-0,19)		-1,76 (-0,06)	-1,95 (-0,11)	16,31***	0,73	-0,02	2,19
SR/ Assets	1,11 (0,04)						-10,02***	0,09	-0,01	2,08
SR/ Assets		-0,55 (-0,04)	-3,88† (-0,25)		6,82* (0,24)	1,05 (0,06)	-0,55***	2,95*	0,10	2,21
Market/ Book	0,001 (0,02)						0,01***	0,02	-0,01	2,02
Market/ Book		0,005 (0,21)	0,004 (0,14)		0,002 (0,05)	0,006 (0,20)	0,01***	0,79	0,04	2,01

†$p<0,1$; *$p<0,05$; **$p<0,01$; ***$p<0,001$

Inspecting table 5.2 one reach immediately the conclusion that diversification level does not correlate strongly with performance. The only case of a significant equation is when share market valuation is involved, the strongest equation being the one considering the market valuation of the firms equity and diversification as a linear, continuos variable.

Table 5.2 Regression: Diversification - Different Performance measures

	Div.	Div.²	SB[a]	DB[a]	CB[a]	LB[a]	UB[a]	Const.	F-value	adj. R²	D-W-test
SR	3,86† (0,23)							-47,24***	3,90†	0,04	2,15
SR	8,63 (0,51)	-0,78 (-0,29)						-53,07***	2,03	0,03	2,14
SR			-10,43 (-0,16)	-11,18 (-0,22)	-1,16 (-0,18)	3,95 (0,07)		-31,57***	1,32	0,02	2,21
ROA (4 year)	0,40 (0,13)							10,68***	1,29	0,02	2,02
ROA (4 year)	-0,11 (-0,23)	1,07 (0,36)						9,86***	0,70	-0,01	2,02
ROA (4 year)			-1,22 (-0,11)	-1,56 (-0,17)	0,86 (0,07)	-0,31 (-0,03)		12,4***	0,76	-0,01	2,08
ROE (4 year)	0,54 (0,12)							13,67***	0,99	0,00	2,11
ROE (4 year)	2,83 (0,61)	-0,38 (-0,50)						10,91**	0,80	-0,01	2,16
ROE (4 year)			-1,09 (-0,11)	-1,09 (-0,08)	1,28 (0,07)	0,42 (0,03)		15,63***	0,48	-0,03	2,18
SR/ Assets	1,10* (0,24)							-13,04***	4,20*	0,04	2,10
SR/ Assets	3,38 (0,73)	-0,37 (-0,50)						-15,83***	2,40†	0,04	2,09
SR/ Assets			-3,34 (0,19)	-2,72 (-0,19)	0,08 (0,004)	1,22 (0,08)		-8,74***	1,41	0,02	2,16
Market/ Book	-0,002* (-0,27)							0,02***	5,56*	0,06	2,10
Market/ Book	0,001 (0,71)	-0,007 (-0,97)						0,03***	3,50*	0,06	2,13
Market/ Book			0,01* (0,35)	0,003 (0,12)	0,002 (0,08)	0,001 (0,03)		0,01***	1,87	0,05	2,18

† $p<0,1$; * $p<0,05$; ** $p<0,01$; *** $p<0,001$

[a] Single business (SB), dominant-vertical (DB), constrained (CB), linked (LB), unrelated diversification (UB)

The conclusions that can be drawn are that: 1.) performance measurements have to be motivated theoretically and/or methodological; 2.) the market valuation of the firms equity is preferred since it consider one of the main stake holders interest and it includes information about the firm; and with regard to Swedish circumstances, 3.) performance correlates with ownership structure if it is observed as subjective, categorical variables, and that performance has no strong correlation with diversification.

The correlations has been simple, however, not including one single control variable in order to factor out variance that belong to other factors that could influence performance. One variable that has been extensively used as a control variable is industry (McGahan & Porter, 1997). Most often the performance of the firm has been standardised with the average performance of the industry where the

firm has its dominating business. Two main objections can be raised against controlling for industry. With increasing level of diversification, the dominance of a single industry decrease, ending with firms with an unrelated strategy which, according to the definition, has no dominant business and therefor no average industry performance to control for (Stimpert & Duhaime, 1997).

The crucial argument against the use of industry as a control variable is that the researcher is trying to reduce the effect of the very variable the researcher is trying to deal with, the variable of strategy. The basic idea with controlling for industry is to find whether a firm consisting of businesses in a number of different industries performs better as an integrated firm than the composite of the industries does. A firm in a low yielding industry entering a high yielding industry could improve its profit but its performance, considering that the firm has entered a high profit industry, could be low if it is performing less than average in the high yielding industry. Controlling for the dominant industry would in our example, assuming the old industry to still be dominant, show an increase in performance since the average performance that are controlled for is the old, low yielding industry. One advanced method of controlling for industry effects is to construct a composite performance measurement consisting of the sum of the proportion of every single industry the firm is engaged in, multiplied with the average industry yield. This composite performance measurement represents the algebraic sum of the industries the firm is engaged in. If the firms profit is higher, it can either combine the industries and reach a sum that is higher than its parts, or it has above average performance in some industries. This method is clearly to prefer since it is capable of finding above average industry performance. It should, however, be noted that the method still reduces the effect of strategy. A move from one industry to another, escaping the industry effect (Rumelt, 1974; Stimpert & Duhaime, 1997) or trying to capture a positive industry effect through selecting a high yield industry (Bettis & Hall, 1982) could be the very essence of the strategy. Additionally, one has to add that if there is a learning effect, then one has to consider time when controlling for industry. A recent move to a new industry could imply less than average performance in the new industry for several years before the entering firm has learned how to behave similar to the other firms in the industry and thereby be able to produce the average level of performance. The conclusion is that industry should not be controlled for, except when the researcher is interested in measuring the firms performance compared to similar firms, but then every industry the firm is engaged in has to be controlled for and time has to be considered. This is a methodological development this paper cannot engage in. Thus, industry is left out of consideration as a control variable.

We have found that the market valuation of the firms equity is preferred as performance indicator and that industry is not a proper control variable. With these improvements, we have found performance differences between different ownership structures, but no remarkable differences between different levels of diversification. We are not yet ready, however, to construct our equation relating performance to strategy and governance structures. We have at this point considered ownership and strategy influence upon performance. We still have to consider feedback loops and additional elements belonging to the governance structure beyond the ownership structure.

6. OWNERSHIP STRUCTURE INFLUENCE THE SHARE MARKET VALUATION OF THE FIRM

One important speculation about share market behaviour is that the market does not only value the firm and the mass psychology of the share market, but that the share market also takes notice of 1.) the capacity of an ownership structure to create firm performance, and 2.) the risk for hold-up. Different ownership structures have, presumably, different ways of functioning and therefor different capacities to influence the firm and to affect the firms performance. Firms with ownership structures involving shareholders that have a reputation of being active and good shareholders would be priced higher than firms that have shareholders regarded as incompetent. This implies that concentrated ownership is not in general good for the firm and its share market performance. The quality of the dominating shareholder or shareholders is presumably an important input for share market actors when valuing the firm and its potential for profit.

To this must be added the second factor, that of fears of hold-up. Agency theorists mostly regard the agency conflict to emerge between the shareholders and the management of the firm, since these two parties have two distinct different positions in the economy. But it is conceivable that there could be shareholders that have investment characteristics that are similar to the investments of the top management team. Dominant shareholders, with strong power ambitions but with a fortune only capable of holding a controlling stock, lacking an opportunity to diversify on the market has a similar investment characteristic and presumably the same interest as the top managers. The dominant shareholder and the top managers could be assumed to create an alliance of interest, or even an organised alliance, which creates an agency conflict between the alliance and the rest of the dispersed shareholders of the corporation in question. Thus, ideally one has to consider the dominant shareholders economic situation before making predictions about the relationship between the shareholders, the top management and firm variables. Lacking this

opportunity in many research situations, a proxy of the ideal situation would be to hypothesise, given the normal assumptions in agency theory and the feudal conception of the corporation, that the share market performance of the firm increases with growing ownership concentration, but at a certain level, the fair for hold-up and alliance formations between the dominant shareholder and the top managers reduce the share market performance. The hypothesis is:

H_6: Ownership concentration is curvilinearly correlated with performance

It is a weak hypothesis since it assumes that a dominating shareholder builds alliances with the top management due to similar investment characteristics. However, the hypothesis points towards the importance to consider investments characteristics among all involved in the traditional principal-agent relationship. Additionally, it indicate the possibility of alliance formation crossing the traditional principal - agent boarder. The hypothesis is, however, not supported by the present Swedish data set. One reason to this prediction failure could be that ownership concentration is a very bad proxy of alliance formation.

The feedback loop of ownership structure influencing share market performance through the markets valuation of the ownership structure is not the only feedback loop that can be observed. In the next section we consider an even more important loop, that of the firm influencing the ownership structure.

7. THE FIRM INFLUENCES THE OWNERSHIP STRUCTURE

Actual and potential share owners influence the firm through the firms share price and its fluctuations, and actual shareholders can additionally influence the firm through actions on different ownership arenas such as the annual meeting of shareholders, the board of directors etc. But actual and potential investors influence also the firm through exiting and entering the firms ownership structure, thus influencing the very composition of the ownership structure of the firm. Demsetz & Lehn (1985) hypothesised that the ownership structure was a rational response by investors towards risk and control costs. They predicted ownership concentration to increase when 1.) the firm was hard to control due to high share market risk, when 2.) the firm was small and consequently did not demand enormous investments for a single investor, and when 3.) the firm had an 'amenity potential' such as golf courses and newspaper. Additionally, one would expect to find low concentration when the firms market was heavily regulated, implying that the

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state is the controlling agent. What has to be added to this argument is that it can only be the manageable risk that influences ownership concentration, that is, the systematic risk influence ownership concentration. Unsystematic risk is per definition possible to manage on the share market through diversification, and could therefor not be an inducement towards concentration of the ownership structure.

Thus, with ownership concentration as the dependent variable, one could hypothesise:

H_{7a}: Ownership concentration is negatively correlated with size

H_{7b}: Ownership concentration is positively correlated with systematic risk

A test of the Demsetz and Lehn's hypotheses on the Swedish data set shows rather surprising results. Table 7.1 shows the correlations, indicating support for the size hypothesis, but an opposite sign for systematic risk and a positive correlation with unsystematic risk. Table 7.2 shows the regression results. Tolerance values are included since there is a collineriaty problem in the regression created by the high correlation between size and unsystematic risk. Removing unsystematic risk from the equation makes systematic risk insignificant. Running additional equations replacing the Herfindahl index with entropy and percentage ownership by the five largest shareholders shows, however, a slight significant negative relationship between concentration and systematic risk. Thus, a strong support for the hypothesis that concentration is negatively related to size, but only roughly indications on support for the opposite risk hypothesis. Thus, there could be some truth in the hypothesis that the firm influences the ownership structure. The explanations of the results could, however, be rather obvious, that with increasing size, the number of capitalists or investors holding the wealth that would make a concentrated ownership possible decreases, thus reducing the possibility of finding large size and concentrated ownership in the same firm. Thus, the size effect could be explained, not with risk considerations, but with probability of wealthy investors. This, does not, however, rule out the risk explanation since there are investors that are capable of buying all the shares in a single corporation, even in the largest firm, but they are not doing it, probably because of risk considerations.

Table 7.1 Descriptive statistics for the firm influencing ownership structure

	Mean	StD	Size	SysRisk	UnRisk
Ownership concentration	0,274	0,204	-0,31**	-0,23*	0,33**
Size: Share value (transformed)	3,278	0,678	---	0,21†	-0,45***
SysRisk: Systematic risk	0,897	0,362	---	---	0,068
UnRisk: Unsystematic risk	3,969	1,609	---	---	---

†$p<0,1$; *$p<0,05$; **$p<0,01$; ***$p<0,001$

Table 7.2 Ownership concentration explained by risk and size

	Beta	Stand Error	Tolerance
Size	-0,039	-0,13	0,74
SysRisk	-0,126†	-0,22	0,92
UnRisk	0,037*	0,29	0,77
Constant	0,371*		
adj. R^2= 0,15	F=5,28**		
Durbin-Watson=1,75			

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

The negative correlation between systematic risk and concentration is still left to explain. The reasoning behind the risk hypothesis was that high risk, i.e., high variance, induces increased control, i.e., an increase in ownership concentration. But recall that the first section of the paper doomed concentration measures to be incapable of representing the intricate character of ownership structure, and that section six proposed that alliance building could occur between shareholders and top management, implying that a concentration measure cannot fully represent ownership influence over the firm. What ownership concentration can indicate, however, is risk exposure, concentrated ownership structures exposing their dominant shareholders for more of the firms risk than less dominating shareholders. If we assume that domination through concentrated ownership is sought because of the influence it implies, whether it is in solitude or in alliance with other shareholders or top management, and if it implies that the investor is not capable, due to wealth restrictions, to reduce its risk on the share market, then the dominant shareholder seeks corporations with low systematic risk. This seems to be a rather rational behaviour considering the opposite sign of the correlation between systematic and unsystematic risk, indicating that firms with highly concentrated ownership structures have higher unsystematic risk than firms with low concentration.

The two major conclusions that can be drawn in this section are 1.) that the ownership structure characteristics that are measured with concentration measures are in the first place risk, and more speculative, 2.) that dominating shareholders engage in firms with low systematic risk, trying to countervail a high unsystematic risk.

8. CORPORATE GOVERNANCE STRUCTURE INFLUENCE THE STRATEGY AND THE PERFORMANCE OF THE FIRM

We have noticed the ownership structure as a corporate governance mechanism and how it is influencing the firm and its performance, and in the latest section we noticed the feedback loop between the firm and

the ownership structure. There is, however, a multitude of different mechanisms of corporate governance, the ownership structure being only one of several mechanisms influencing the firm. The literature has introduced the organisation structure, for example represented by the functional, multi-divisional and holding company form (Hill and Pickering, 1986; Hill & Hoskisson, 1987; Hill, Hitt and Hoskisson, 1992; Hoskisson, 1987; Hoskisson & Turk, 1990; Jones and Hill, 1988), the board of directors (Hill and Snell, 1988; Hoskisson, Johnson & Moesel, 1994), and the capital structure (Jensen, 1989; cf. Hoskisson, Johnson & Moesel, 1994). An important mechanism, however only indirectly noticed in empirical research through top management team composition (Michel & Hambrick (1992), is the system of management selection.

The variable of organisational structure is a rather important one since one of the most strongly held hypothesis is the Chandlerian hypothesis predicting structure to follow strategy, thus implying a fit relationship between strategy and structure. Hill and Hoskinssons have in various articles found support of the fit hypothesis. Thus, we hypothesise:

> H_8: A fit between strategy and structure is positively correlated with performance, where fit is expressed by single business-functional form, related diversification - multi-divisional form and unrelated diversification - the holding company form.

Board composition influencing the firm and its performance appears rather trivial, but it is hard to theoretically pinpoint what factors of board composition that influence the firm. North-American and UK studies distinguish between outsiders and insiders, and between insider chairmen and outsider chairmen, predicting more ownership orientation in outsider dominated boards (Hoskisson, Johnson & Moesel, 1994; Hoskisson & Turk, 1990). This is, however, a distinction only possible to make in the rather exotic countries of US and UK, the distinction being more or less unknown in the majority of capitalist countries. Incapable of forming a theory of board composition, no hypotheses can be formulated, but the triviality of the relationship put a demand on a theoretical development.

The capital structure of the firm represents the stakes held by different capitalists with different compensation profiles and thus with different interests in firm performance. The capital structure could thus be expected to correlate with performance. Most studies outside the Marxist paradigm have, however, been exclusively focused on equity and the shares of the corporation. Only recently have non-Marxist theories of finance taken note of the special role of debt (Hart, 1989). Debt has shown to be of vital concern, also in large economies as that of the US, with its leveraged buy-outs (Jensen, 1989), and

its rating institutes that attend to the interests of debt providers. In Europe and Japan creditors such as the banks have played a major role, represented by the business groups, for example Keiretsus in Japan and bank groups in Germany.

The influence of debt upon the firm and its performance is, however, not easily predicted. Since the ex-post residual is paid to the capitalist and only an ex-ante determined amount is paid to debt, whereas all of the capital, be it equity or debt, is at risk, a debt holder has no incentives to participate in adventurous operations with high risk and high profit. For corporations with a low solvency - defined as equity divided with total capital - which allows debt holders to impose their wishes on the managers, a thrust towards presumably unrelated diversification and a stable but not an exceptionally high profit could be expected. A growth strategy implying diversification could be welcomed by the debt holders too, since it presumably creates a demand for additional debt in order to finance the expansion. Thus, we hypothesise

H_{8b}: Solvency, i.e., equity divided with total capital, varies positively with performance.
H_{8c}: Solvency, i.e., equity divided with total capital, varies positively with risk.
H_{8d}: Solvency, i.e., equity divided with total capital, varies negatively with diversification.

The managerial labour market is underestimated as an important corporate governance mechanism in the literature. Implicitly it is commonly assumed that the external labour market is not able to separate the performance of the manager from that of the company, meaning that it equates the risk of the manager with the companies risk (Amihud & Lev, 1981). The internal labour market, being better informed due to its more intimate knowledge of the company's operations, has the prerequisites for being superior monitors, more capable of separating the performance of the manager from that of the company. It can thus be argued that middle managers, being better evaluated, have no incentives towards diversification. Top managers, on the other hand, that are more exposed to the external managerial market, cannot trust the markets capacity to separate the performance of the firm and the performance of the top manager. They thus have incentives to diversify the firm. Interesting to note are the recent speculations about a more mobile class of managers. The belief is that the new managers are putting less emphasis on the internal managerial market and life times investments in a single corporation. If this is true, it indicates that the external managerial labour market has improved its evaluation efficiency, maybe due to the establishment of intermediaries such as head-hunters and/or improved information technology. That would, however, also influence top managers, thus inducing them to reduce their risk management through

diversification. The simultaneous movement towards downsizing and less diversified corporations is US seems to corroborate this speculation. Thus, a hard-to-test hypothesis can be formulated:

> H_{8e}: The efficiency of the external managerial labour market varies negatively with diversification

Absent a measurement of labour market efficiency, no test of the hypothesis can be performed. A speculation about Sweden can, however, be made. Sweden, due to its small population, has a business society in which the very elite consists of less than 200 people (Collin, 1993). If the 114 listed corporations have a top management team consisting of 7 people, there are 798 top managers in Sweden to keep track of, which presumably is not an inhumane task for any information system to perform. Including the fact that Sweden has a well-developed business press, thus enhancing the information flow, one would expect the Swedish managerial market to be rather efficient. The implication of this empirical speculation is that the US-relationship between ownership control and diversification would not be present in Sweden, everything else being equal, since the control of the top managers is stronger in Sweden than in US.

The conclusion of this section is that numerous corporate governance mechanisms have to be considered when investigating the control of the corporation and the performance implications. An idea of equilibrium could be established saying that governance mechanism balance each other. The efficiency of the managerial labour market, for example, influences the ownership structure and the board composition, making it necessary to compensate a weak managerial labour market in US with strong ownership structures, or to compensate for a passive market for corporate control in Sweden. Thus, without controlling for the other corporate mechanisms, one cannot draw strong conclusions about the influence one single mechanism has upon strategy and performance.

9. INSTITUTIONS INFLUENCING CORPORATE GOVERNANCE STRUCTURES

There are huge differences between different countries, and especially between economic systems where there are dependent corporations, conventionally termed bank oriented systems (cf. Berglöv, 1990) where large corporations are connected to webs of corporations, and systems where there are independent corporations, by convention termed market-oriented systems. It would be rather surprising if these institutional differences did not influence the corporate governance mechanisms and their influence upon the firm and its performance. There are studies finding, for example, a similar prediction failure in

Canada (Gedajlovic, 1993) and New Zealand (Fox & Hamilton, 1994); that ownership concentration is affected by a country effect and that there are no correlations between ROE-performance and concentration in 12 European countries (Thomsen & Pedersen, 1997); that similar results were reached if comparing US, UK, Germany, Canada and France (Gedajlovic & Shapiro, 1998); and that there are performance differences between firms in different countries after controlling for many factors (Boardman & Vining, 1989). On the other hand, one study of West Germany (Bühner, 1987) had similar findings as US-studies.

The theory the paper presented is based on the Berle & Means theme of the separation of ownership and control, a separation which creates two differing classes, that of the owner of the shares and that of the manager, with differing positions in the economic system and with different investment characteristics, thus implying different interest and thereby different behaviour. The Berle and Means conception originated in North America at the beginning of the twentieth century and have since then been a standing theme in both popular and academic debates concerning the American corporation. A similar debate regarding the control of the corporation has been lacking in Continental Europe. Instead, the fusion of banks, industry and state has been of primary concern here, both for researchers and in popular debate (Lash and Urry, 1987). Thus, it indicates that it is more the fusion of interest than the separation of interest that has long been dominant in Europe.

Comparing superficially US and Sweden, US stock market is dominated by pension funds, presumably acting as speculants, and having rather passive and weak shareholders. This has been termed 'Fund capitalism'. Additionally, unions play a rather limited role and the state is strong and independent. Sweden, on the other hand, has very strong shareholders, first on the list being the powerful Wallenberg family, have strong unions organising almost every worker, and a strong but a very cooperative state. Those are the most obvious differences, emphasising formal institutional difference. Informal institutions, such as norms expressed through culture, could presumably be different too, Sweden characterised, for example, by the norm of equality and US by the norm of independence.

The demand on theory has now reached its very peak, calling for an inclusion of all corporate governance mechanisms, and all institutional factors influencing the firm. It has, however, to be made, though it is a very demanding task, if the science of management should be capable to erase its nationalistic character and reach conclusions that are general for firms in a capitalistic society.

10. THE CONCLUDING MODEL OF CORPORATE GOVERNANCE MECHANISMS, STRATEGY AND FIRM PERFORMANCE

Concluding this paper with a model including all proposed hypotheses reveals a figure bearing a faint resemblance with the Battle of Little Big Horn, that is, many arrows but no sight of The Single Causa. And yet, what figure 10 is most about is one single governance arena, the share market, and its behaviour. Figure 10 indicates that the ownership structure influences the performance of the firm and its strategy, and the ownership structure is influenced by the surrounding institutions in which it is embedded, by other governance structures, by the performance of the firm, be it accounting or share market performance, and by the strategy of the firm. The ownership structure is solely composed of shareholders that exit and entry through the stock market, thus the centre of the model represents stock market behaviour.

The next important factor of the model is firm strategy. It influences both the performance of the firm and several corporate governance mechanisms such as the organisational structure and the ownership structure, and the strategy is influenced by the ownership structure and other corporate governance mechanisms such as the board and the organisational structure. Thus, strategy can be regarded as one of the major intermediaries between the major stakeholders, in this case the shareholders, and the firm and the performance of the firm.

The last important factor in the model is firm performance, be it share market performance, accounting performance or a mix of these two measures. Performance influences the ownership structure and is influenced by the governance mechanisms, by the strategy and by the fit between the strategy and other governance mechanisms, especially the organisational structure. It is trivial to point out that performance is influenced by other factors as well, but the factors mentioned in this abstract model are the ones theoretically important for the relationship between ownership structure and performance. Industry, which is a factor influencing performance since different industries have different average profit levels, is demonstratively excluded from the model since, as it has been argued in part 5, industry is a strategy variable and is thus included in the strategy factor. Size of the firm has in a similar manner been removed as a control variable since it too has to be regarded as a strategy factor.
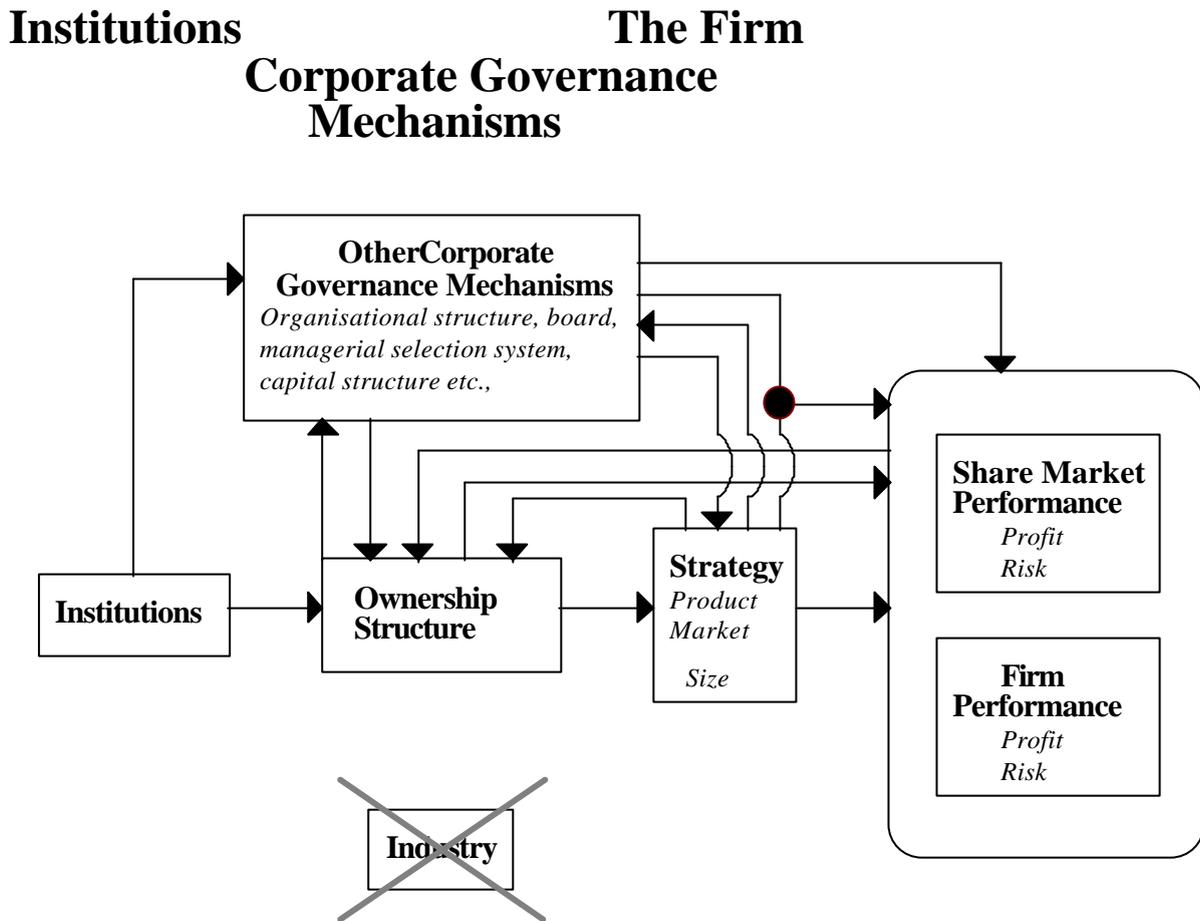
The model does to further the theory of diversification, but makes slight remarks to future research. It is built on the frustration of the replication failure of the Smithsonian standard model of ownership and performance using Swedish data. The concluding model indicates three causes influencing the Swedish test failure, except for the causes of bad observations and analytical techniques: 1.) there are important feedback loops that have to be considered; 2.) there are intervening variables belonging to the firm and its governance structure that have to be included; and last but maybe not the least, 3.) there could be institutional differences influencing the whole economic system in which the firm, the governance mechanisms and the share market are embedded in, one of them being the relative power of other stakeholders.

Feedback loops determine our possibility to make conclusions of causal relationships (cf. Grant, Jammine & Thomas, 1988). Finding a correlation between ownership structure as an independent variable in an equation, and performance as the dependent variable, it is nevertheless impossible to

conclude about the causality between the variables. Lacking this possibility, the test cannot distinguish between the proposition where ownership structure is an active agent: 'ownership structure influence performance' and the proposition where the ownership structure is a reactive agent: 'performance influence ownership structure'. Since these two propositions differ in theoretical reasoning, the only outcome of such a test is that ownership structure is active or reactive, which, to be true, is not saying very much. To find a causal link between these two factors, research has to utilise diachronic methodology, such as time series or event studies (cf. Bergh & Holbein, 1997).

Intervening variables, such as strategy, structure and the managerial labour market, are on different levels of theoretical sophistication. Strategy observed as level of diversification has been a subject for many years and is probably the most researched variable except for performance in the management science. Organisational structure in this context has not received the same intense attention, despite the Chandlerian proposition of strategy driving structure. On the same level of sophistication are the board and its compositional influence upon the firm. Least observed, and therefor on the lowest level of sophistication, are the managerial labour market and its influence upon the firm and the managers behaviour. There are virgin areas to walk, finding theoretical propositions about correlations or causal connections between the managerial labour market, the other corporate governance mechanisms and the firm and its performance, and to find methodological sound measurements making it possible to empirically observe the labour market.

Institutional influence creates differences between countries, impeding the making of general conclusions. It is therefor impossible to state that 'we know that diversification has a $\cap$-shaped correlation with performance', since the tests have almost exclusively been made on Fortune 500-corporations. Thus, a humble attitude has to signify researchers in strategy and corporate governance. My suggestion to a proper scientific norm of honourable conduct is to always include in conclusions a speculation about the proper area of generalisation. This would probably lead to many articles ending with remarks of country specific conclusions, thus inducing all of us researchers in these fields to elevate our efforts, away from national oriented research, into international research, comparing different institutional settings and thereby being capable to find universalities and particularities. Only through such an effort can management science be a true science.

EPILOGUE: GOVERNANCE STRUCTURE, STRATEGY AND PERFORMANCE IN SWEDEN

The paper started with a prediction failure. Proper behaviour would be to end the paper with a test including all variables and all relationships that the paper has found important. Due to limitations of different kinds, all I can offer is a regression with the independent variables being corporate governance structure factors such as the ownership structure, measured in the categorical and subjective way, and the capital structure variable, measured as solvency (equity/total capital), the firm variables of strategy, measured as level of diversification, and performance, measured as share market return divided with total capital. One control variable has been included, that of presence on other stock markets than the Stockholm stock exchange. This control variable is included since it could be the case that the firms listed on several stock markets, and especially those listed in London or New York, are priced differently due to high liquidity and that they are subject to international forces of a larger magnitude than domestic firms.

Table 11a: Correlation matrix: Governance Structure, Diversification and Performance

	Mean	StD	IntList	Divers	Solvency	Market/Book
WBG	12[a]	---	$0,44^{***}$	,13	0,09	$0,20^{\dagger}$
HBG	4[a]	---	0,19	,00	0,03	0,10
Man	24[a]	---	0,03	-0,06	0,17	$0,23^{*}$
Bank	15[a]	---	-0,16	$-0,22^{\dagger}$	$-0,69^{***}$	$-0,41^{***}$
Cap	19[a]	---	$-0,29^{*}$	0,18	$0,35^{*}$	-0,06
IntList	14[a]	---	---	$0,30^{*}$	0,15	$0,27^{*}$
Divers	3	1,39	$0,30^{*}$	---	$0,21^{\dagger}$	-0,02
Solvency	33,4	14,2	0,15	$0,21^{\dagger}$	---	$0,56^{***}$
Market/Book	0,87	0,10				

[a] number of corporations in the category
$^{\dagger}p<0,1$; $^{*}p<0,05$; $^{**}p<0,01$; $^{***}p<0,001$

Inspecting table 11b, one find that the only ownership structure that is outperforming the ownership structure dominated by a capitalist (the omitted dummy variable) is the management dominated firm. Thus, during recession times in Sweden there is no empirical reason to believe that single capitalists are better shareholders judged by performance. International Listing (IntList) does not significantly influence performance. Diversification is significantly correlated with performance, but the sign is the reverse expected. The performance increment from diversification reduces performance continuously until the bottom is reached with the lowest performer being linked diversification. The best performer is single industry, and the unrelated diversification is performing almost as good as the dominant-vertical diversification. Thus, it can fairly well be concluded that during recession times in Sweden, the relationship between diversification and performance is opposite the relationship found in US. The strongest predictor of

performance was solvency, which could imply that successful firms gaining strong solvency remains successful during recession times, or that high solvency creates a favourable performance atmosphere for managers. This too, is contrary to beliefs by financial economists such as Jensen, arguing that low solvency keeps managers on the profit track, depriving managers from spending money on non-profitable investments.

Table 11b: Regression: Performance regressed on Governance Structure and Diversification

	Beta	**Stand Error**
WBG	0,057	0,20
HBG	0,057	0,13
Man	0,056*	0,25
Bank	0,035	0,14
Cap	---	---
IntList	0,036	0,13
Divers	-0,077*	-1,03
Divers^2	0,010†	0,87
Solvency	0,005***	0,62
Constant	0,789***	
adj. R^2= 0,39	F=6,76***	
Durbin-Watson=1,89		

†p<0,1; *p<0,05; **p<0,01; ***p<0,001

In sum, the prediction failure is still present, but now in a stronger version with significant correlations opposing the most frequent published results. Could this be because of the present researcher being a bad observer, or because of to many variables from the concluding model omitted? While it could certainly be true that the present researcher has made many errors, the significant results and the high R^2 indicate that either the errors have been made in a highly systematic way, or that despite errors there are correlations in the Swedish case that goes opposite US experiences.

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APPENDIX 1.

Variables used in the different analyses

	VARIABLE	ABBREVIATION	MEASUREMENT	SOURCE
CORPORATE GOVERNANCE MECHANISM	**Ownership Structure**			
	* Concentration: - Herfindahl - Entropy	OwnH OwnE	Herfindahl Entropy	Sundqvist (1991), with ownership data on the 25 largest shareholders.
	* Categorical - Wallenberg business group - Handelsbank business group - Management control - Bank control - Capitalist control	WBG HBG Man Bank Cap	Two persons classified independently, reaching an interrater agreement of 94%. The disagreement were solved after a discussion.	The author and a colleague (Lars Bengtsson)
	* Capital Structure	Solvency	Equity/Total Assets	Veckans Affärer 1991[a]
THE FIRM	* Strategy - Diversification - Size	Div Size	Rumelt five categories Log transformation of Sales	A colleague (Lars Bengtsson) Veckans Affärer 1991
	Performance * Share market value - Share market return - Systematic risk - Unsystematic risk - Total risk * Accounting value - Return on Assets - Return on Equity - Share return/Assets - Market-to-book	SR SysR UnsysR TotR ROA ROE SR/Assets Market/Book	Per cent change in share value 1990 Using 156 weeks of stock return data, ending January 1990, we estimated Risk using CAPM As defined by the Business Press	Affärsvärlden 1991[a] Data from the Stockholm Stock Exchange Veckans Affärer, 1991 Veckans Affärer, 1991 Affärsvärlden, 1991/ Veckans Affärer, 1991
CONTROL VARIABLE	International listing	IntList	Presence on a stock exchange outside Sweden	Affärsvärlden, 1991

n=73, i.e., 63% of all listed corporation at the Stockholm stock exchange. Financial corporations excluded.

[a] Business Press