

Preliminary Draft

Owner Monitoring Versus Market Monitoring: Are These Substitutes?

By

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Abstract

Some argue that concentration of ownership will alleviate the principal-agent problem by making owners more able or willing to monitor. Then, higher concentration is expected to result in better performance.

Others argue that in the presence of efficient markets, the principal-agent problem will be alleviated by market monitoring – the watchful eye of an arbitrage-seeking market participant will not miss an underperforming firm. The firm will be taken over, the management will be changed, performance will be improved and profits will be realized.

Are these two governance mechanisms substitutes? Using data from transition and developed market economies, our preliminary results show that concentration of ownership is as important when market monitoring is supposedly strong as when market monitoring is supposed to be weak.

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1. Introduction

As early as in 1930s, Bearle and Mean raised the issue of separation of ownership and control in modern corporations. Managing modern corporations can be a challenging job, requiring special skills and talents. Quite often people, who can manage, do not have the means to become the sole owners or do not wish doing so for diversification reasons. Instead, they are hired by the owners (or principals) to act as the latter's agents. In a zero transaction cost world this would be the end of the story – the parties would write a contract defining each other's duties and rights. Actions would be perfectly observable, outcomes - perfectly measurable and contracts - perfectly enforceable.

The story becomes much more complicated when transaction costs are positive. For example, information is not symmetric and outcomes are not perfectly measurable. Detecting shirking will become more difficult. This will increase the agents' incentive to shirk, which will hurt the principals. A well-known formalization of this principal-agent problem is by Jensen and Meckling (197?). They showed that as the manager's share in the firm is declining, she has more incentives to deviate from shareholder value maximization. Real resources have to be spent to create mechanisms that would align the interests of the principals and the agents. The creation and functioning of these mechanisms themselves are functions of economic, political and cultural factors. As a result, these mechanisms will differ across time, regimes, nations, etc.

Monitoring the managers is one way of alleviating the principal-agent problem – the monitors spend real resources to gather information about the managers' performance and discipline them if necessary. As mentioned in the literature, monitoring can be done

by owners or by markets for corporate control and managerial labor. In this paper we test whether these two are substitute governance mechanisms. We contrast an environment where the markets are more developed with an environment where they are less developed. If these two mechanisms were substitutes, we would expect the owners' monitoring power to be a more important determinant of performance in a less developed market environment than in an environment where markets are more developed.

Owners are natural candidates for monitors – they are residual claimants and directly benefit from improved performance. But there can be many reasons why the owners cannot be effective monitors. For example, if the ownership is dispersed, there is a free rider problem – monitoring becomes a public good. An individual owner can enjoy the benefits of monitoring without paying for it. In contrast, a larger share will make the owner more capable or willing to monitor the manager (Schleifer and Vishny, 1986). The implication is that, in contrast to the Modigliani-Miller result, the value of the firm will depend on the ownership structure. The managers will be better monitored if the owners' controlling power is strong. Then, everything else constant, the stronger is the owners' controlling power, the closer will the firm be to shareholder value maximization. There is a large empirical literature investigating the relationship between ownership structure and performance. Various measures of control and performance have been used. The results vary.

[Literature Review of the relationship between ownership structure and performance]

The markets for corporate control and managerial labor have been mentioned as alternative monitoring mechanisms.

[*Review (Manne (1965), Marris (1964), Jensen and Ruback (1983) etc for corporate control markets; Review Fama, etc for managerial labor markets*].

For example, if the management is the reason for poor performance, the outsiders can profit by taking over the firm, changing the managers and improving performance. The experience, reputation of the players and the legal infrastructure seem to be some of the important determinants of how efficient these markets will be. It takes time to build reputation, adopt and test laws or regulations. In addition, the size of the market may introduce economies of scale in producing information, making larger markets more efficient. If so, then market age and size can be used as proxies of how developed and efficient the markets are.

Thus, according to the existing hypothesis, monitoring by the markets and monitoring by the owners can be substitute governance mechanisms. Our main objective is to test the validity of this hypothesis.

In this paper we contrast publicly traded companies from two different environments – The Czech Republic (CZ) and Poland (PL) on one side and the Great Britain (GB) on the other side. CZ and PL are transition countries, which slightly more than a decade ago were command economies with practically no markets. The existing capital markets in these countries are very young and thin, and mostly provide some

liquidity for the shareholders. GB, in contrast, has a long history of capital market activity - the London Stock Exchange has a global significance and reputation.

[Find information about market capitalization, takeover activity in GB, PL and CZ].

Similarly, the managerial labor markets in CZ and PL are incomparably younger than the market in GB. As a result, the market players in CZ and PL have had much less time for learning and reputation building than their counterparts in GB. The managers or minority shareholders controlling the firms face more outside threats in GB than in CZ and PL. Thus, we have grounds for assuming that the markets for corporate control and managerial labor are more efficient in GB than in CZ and PL. Then, if monitoring by the owners and monitoring by the markets are substitute governance mechanisms, we would expect the former to be a more important determinant of performance in CZ and PL than in GB.

2. The Model

The model is

$$ROA = \alpha_0 + \alpha_1 T + \alpha_2 \cdot S + \alpha_3 \cdot S \cdot T + \alpha_4 \cdot \bar{S}p + \alpha_5 \cdot \bar{S}p \cdot T + \alpha_6 \cdot C5 + \alpha_7 \cdot C5 \cdot T + \varepsilon_1 \quad (1)$$

$$C5 = \beta_0 + \beta_1 \cdot T + \beta_2 \cdot S + \beta_3 \cdot S \cdot T + \beta_4 \cdot \bar{S}p + \beta_5 \cdot \bar{S}p \cdot T + \beta_6 \cdot Var + \beta_7 \cdot Var \cdot T + \varepsilon_2 \quad (2)$$

where *ROA* is the return on assets calculated as profits *before* taxes over the total assets; *T* is a dummy variable that assumes 1 if the firm is from a transition economy and 0 otherwise; *S* is the size of the firm – the dollar value of the assets; $\bar{S}p$ is a vector of

dummies standing for different specializations such as manufacturing, services, etc; $C5$ is the concentration of ownership calculated as the sum of shares of the first 5 largest owners; Var is a measure of the variability of the firms environment calculated as the variance of ROA for the preceding four years; $S \cdot T$; $\bar{Sp} \cdot T$; $C5 \cdot T$ and $Var \cdot T$ are interaction terms.

2.a. The Relationship between Ownership Concentration and Performance

Equation (1) shows performance as a function of several variables. Performance is measured by the pre-tax Return on Assets (ROA). Using the pre-tax returns allows us to ignore differences in tax regulations across the countries and/or industries.

Size (S) is used as one determinant of performance. The economies of scale argument stands behind its inclusion in the model. If there are economies of scale, then size should have positive impact on performance. However, in transition economies bigger firms sometimes have government presence or are patronized by the government – these are former state-owned enterprises.³ The presence of the state might have both positive and negative effects. If state presence implies an easier access to credits and other privileges, performance might improve. Alternatively, if political considerations dominate, state presence might have negative impact. For example, in order to keep unemployment low, the state might keep a firm afloat even if it is making losses. The interaction term $S \cdot T$ is supposed to account for the possible effects of transition peculiarities on the relationship between size and performance.

³ We do not have information about state presence so that we could control for its impact explicitly.

Specialization (Sp) is used as another determinant of performance. One reason for its inclusion might be the different constraints that firms face in different industries. For example, some industries might be more regulated than others. Or some industries might be more competitive than others. Like with size, we use an interaction term $\bar{Sp} \cdot T$ to account for the effects of transition-specific factors on the relationship between specialization and performance.

The concentration of ownership is the third determinant of performance used in our model. We use the percentage share of the 5 largest owners ($C5$) as a measure of concentration. The theoretical justification for including the concentration is that it is a measure of the owners' controlling power. If one believes in Berle and Means thesis, then a large $C5$ would imply a better performance: a large $C5$ would imply that the managers are better monitored, so the firm is closer to shareholder value maximization. If one believes in Manne's thesis, then the existence of efficient markets would imply that takeover threats would discipline the managers - the markets would do the monitoring. The takeover markets in GB are much more active than those in CZ and PL. The higher outside threat to the British managers, in case of poor performance, would imply that direct monitoring by the owners should be less important there. In contrast, the lower (or non-existent) outside threat to the managers in CZ and PL would imply that the variations in the owners' controlling power should be a more important determinant of performance in CZ and PL than in GB. In other words, if monitoring by the markets is a substitute to monitoring by the owners, then we would expect the interaction term $C5 \cdot T$ to have a positive impact on performance.

2.b. The Endogeneity of Ownership Structure

One of the major criticisms of the existing studies is that they treat ownership structure in general, and concentration in particular, as exogenous. Here we treat ownership concentration as endogenous. We use the same determinants of concentration as Demsetz and Lehn (1985) (same as much as our data permits). Equation (2) shows $C5$ as a function of several variables.

As Demsetz and Lehn argue, concentration is likely to be lower the larger the firm – if owners are risk-averse, then a greater wealth is required to maintain a given percentage in the firm. The interaction term $S \cdot T$ is to account for any potential transition specific effects on this relationship.

Specialization is used as another determinant of concentration. Different industries might face different regulatory requirements or varying degrees of competition. For example, regulation might have a disciplining effect on managers, which would make higher concentration less important. Alternatively, regulation (such as cost-plus price-setting regulation) might reduce incentives to cut costs and lower competition, which would necessitate higher concentration (Demsetz and Lehn). $\bar{S}p \cdot T$ is the interaction term to account for the possible transition-specific effects on the relationship between specialization and concentration.

The variability of the returns (Var) is a measure of the noisiness of the firm's environment. Demsetz and Lehn argue that noisiness should increase concentration since it makes hard distinguishing managerial effort or ability in the presence of outside shocks. A larger concentration will allow the owners to have more information about the

managers' actions. $Var \cdot T$ is the interaction term to account for the effect of transition specific factors on the relationship between variability and concentration.

3. The Data

The data are taken from the Amadeus database. We first pick publicly quoted GB, PL and CZ companies for which there is information on ownership. The ownership information is for a point in time during 1999. For some firms, this information is for some point few months before or after 1999. Their exclusion does not change the results.

The ownership data is matched with the balance sheet and profit and loss data from the same database, for the same year. We model the noisiness of a firm's environment (the variable Var) by calculating the variance of the pre-tax Return on Assets from the preceding years. Var is modeled as the variance of returns for 1995-1998. Going beyond 1995 reduces the number of observations, especially from transition countries. However, using different periods does not significantly affect the results.

Thus, after combining the observations that have ownership and performance data for 1999, and have data on pre-tax Return on Assets for 1995-1998, we end up with 607 observations. Table 1 summarizes the distribution of observations across countries.

Table 1

<u>Country</u>	<u>Freq.</u>	<u>Percent</u>
CZ	69	11.37
GB	450	74.14
<u>PL</u>	<u>88</u>	<u>14.50</u>
Total	607	100.00

Table 2 shows the summary statistics for C5 for the whole sample, for GB, for transition countries (PL and CZ together), and for PL and CZ separately.

Table 2

	<u>Total Sample</u>	<u>GB</u>	<u>Transition</u>	<u>PL</u>	<u>CZ</u>
Observations	607	450	157	88	69
Mean of C5	41.32	32.38	66.95	57.88	78.53
Std. Dev. of C5	24.99	17.08	26.348	25.4	22.90
Min. of C5	0.01	0.01	0.93	3.2	0.93
Max. of C5	100	99.29	100	100	100

The publicly traded companies in PL and CZ, on average, have higher concentration of ownership than those in GB. The publicly traded CZ firms, in turn, have a higher concentration of ownership than those in PL.

4. The Results

Equation (2) is estimated using OLS with robust standard errors to account for heteroskedasticity. The *preliminary* results are reported in Table 3 below.

Table 3

		Robust	
C5	Coef.	Std. Err.	t
T	29.50546	4.539681	6.50
S	-2.08e-07	3.07e-07	-0.68
ST	1.01e-06	5.10e-07	1.97
Manuf	.925637	1.645852	0.56
Manuf.T	-.1916886	5.237658	-0.04
Energy	1.77574	11.56919	0.15
Energy.T	18.67383	12.93251	1.44
Var	8.67e-08	2.69e-08	3.22
VarT	-83.92972	224.3807	-0.37
Intercept	32.14176	1.067278	30.12
R_squared	0.41		

Recall that T is a dummy equal to 1 if the firm is from PL or CZ, and 0 otherwise; S is the dollar value of assets; Manuf is a dummy equal to 1 if the firm is from manufacturing industry and 0 otherwise; Energy is a dummy if the firm is from Energy sector and 0 otherwise; Var is the variance of the firm's pre-tax return on Assets for the period of 1995-1998; ST, Manuf.T, Energy.T and VarT are interaction terms to account for transition specific effects.

The preliminary results show that the noisiness of the firm's environment is significantly and positively related to concentration of ownership – the coefficient on *Var*

is positive and significant. The transition countries, on average, have also a significantly higher concentration of ownership. This makes sense as in the absence or weakness of alternative governance mechanisms, ownership concentration should be important. In transition countries, concentration is increasing with size, but not so in GB. Industry characteristics do not seem to be important determinants of concentration.

Next, we report the preliminary results of the estimation of equation (1) in Tabel 4. To account for endogeneity of ownership concentration, we use 2 SLS for estimating (2).

Table 4

ROA	Coef.	Robust Std. Err.	t
C5	.0062436	.0018983	3.29
C5.T	-.0057074	.0216611	-0.26
T	.0667817	1.33211	0.05
S	1.24e-09	1.49e-09	0.84
ST	-6.11e-10	1.76e-08	-0.03
Manuf	-.0247154	.0192675	-1.28
Manuf.T	.038618	.0473467	0.82
Energy	.0254177	.0601417	0.42
Energy.T	.032671	.4382877	0.07
Intercept	-.1283034	.0603697	-2.13

Recall that the null hypothesis was that the coefficient on $S \cdot T$ is positive and significant. The rationale for this expectation was that since monitoring by the markets is less efficient in PL and CZ, then the managers there will face lower outside threats in case of poor performance than the managers in GB. As a result, ownership concentration would

be more important in explaining variations in performance for PL and CZ firms than for GB firms - a seemingly intuitive argument, implied by the existing theories. We find evidence that ownership concentration explains variations in performance – the coefficient on C5 is positive and significant. But ownership concentration is no more important determinant of performance for transition countries than it is for a developed market economy. The outside disciplining mechanisms that exist in GB do not reduce the importance of ownership concentration as a governance mechanism.

5. Conclusion

Who disciplines the managers? Some suggest that markets will do the monitoring and discipline the managers in case of poor performance. Others argue for the necessity of higher concentration of ownership as an efficient governance mechanism – with larger shares, the owners will be more willing and/or capable to monitor the managers, resulting in better performance. Are these two mechanisms substitutes? Simple intuition tells yes. If so, then we would expect that the concentration of ownership is more important in explaining performance when market monitoring is weaker. Market monitoring is weak in transition countries such as The Czech Republic and Poland. In contrast, there are well- established takeover and managerial labor markets in Great Britain. It is easier and cheaper for the outsiders to takeover the firm there and replace the inefficient management. Facing stronger outside monitoring, the managers would be less willing to shirk. This would make ownership concentration less important as a monitoring and disciplining mechanism.

Our results do find that ownership concentration is important and improves performance. But it is as important for a country which supposedly has a high degree of market monitoring as it is for countries where market monitoring is weak.

References

- Berle and Mean
- Demsetz and Lehn
- Fama
- Jensen and Meckling
- Jensen and ruback
- Manne
- Marris
- Modigliani, Miller
- Schleifer and Vishny