



Do owners make good managers?

Elisabeth Müller and Alexandra Spitz look at the evidence from a group of private German companies to see how the performance of their managements is affected by whether or not they own a share of the equity.

Does the share of a company that is owned by its management affect its financial performance? In principle you might expect that, in companies where ownership and management control are entirely separate, conflicts of interest would arise. For example, an owner might be mainly interested in profit, while a manager might have a professional interest in expansion.

So far this potential conflict of interest has mainly been analysed in relation to public companies. One reason for this may be the better availability of data for public than for private companies. Yet this conflict is potentially important also for private companies, since in this sector not all owners are managers and not all managers are owners.

In all countries, private companies are responsible for a substantial part of overall economic activity. In Germany, for example, private companies with limited liability (GmbH) have a higher share of total turnover than public companies with limited liability (AG). In theory one might expect to find a positive relationship between managerial ownership and performance, as managers owning a share of the company stand to benefit from an increase in profits. Furthermore, they are less likely to divert company resources for private use because they bear a larger share of the cost. This is the "incentive effect".

On the other hand, one might find a negative relationship between managerial ownership and profitability, especially in cases of very high levels of managerial ownership. The higher the ownership stake of the managers, the more diffi-

cult it is for outside owners or others to control or influence the management. This is the "entrenchment effect".

Here the relationship between managerial ownership and risk is also of interest. Since managers are thought to be "risk averse", one would expect a negative relationship between company risk and managerial ownership. The investment in a private company often accounts for a large share of an individual's wealth and is mostly not diversifiable. On the other hand, managerial ownership can also serve as an outward signal of a company's quality. A manager will only be willing to invest large amounts in his own company if he is convinced that it will be successful. Banks take such signals into account when deciding on loan applications. So, since banks are especially reluctant to lend to risky companies, the managers of risky companies may need to make more use of this signal. In this case, there would be a positive relationship between company risk and managerial ownership.

To explore these questions we have examined the evidence from private companies in the German business-related service sector. As can be seen from Table 1, private companies with limited liability (GmbH) are the most important company type in Germany. (The closest counterpart to this legal form in the UK is the private limited company.) The limited liability of the GmbH means that owners are not personally liable for the company's debts. The legal form of the GmbH is quite flexible. The articles can be adapted to fit very small as well as very large companies. A GmbH has at least one owner and is run by one or more managers, who can also be owners. In general, owners share profits according to the proportion of the firm's equity capital they

Managers owning a share of the company stand to benefit from higher profits

hold. It is important to note that the shares of a GmbH cannot be listed on a stock exchange.

Table 1 % share of total turnover by legal form 1998

Private limited liability (GmbH)	32
Public limited liability (AG)	22
Other forms with unlimited liability	46

Source: Statistisches Bundesamt, Germany, 1998.

Data for the analysis was derived from a survey of the German business-related service sector carried out by the Centre for European Economic Research in Mannheim and Creditreform, Germany's largest credit rating agency. The survey data was merged with information from Creditreform's company database. The resulting sample covers the period from 1997 to 2000. The business-related service sector here comprises IT services, consulting, marketing, technical advice, machine rental, logistics and waste disposal.

Companies were asked on a quarterly basis whether their profits had increased, stayed the same, or decreased in the last three months and what they expected of them for the three months to come. On the basis of the answers about past profitability, a performance measure was constructed to take seasonal and sectoral effects into account. This analysis has to be based on surveys to measure performance, as most private companies do not publish their accounts.

Table 2 Definition of Variables

Variable	Definition
Share	Combined ownership share of all managers in the company, measured between 0 and 1
Risk I	Standard deviation of the responses to the performance question (coding: up=2, constant=1, down=0)
Risk II	Average absolute deviation of coding forecasted return minus coding realised return
Owner manager	Number of managers who are also owners
Outside owner	Number of owners who are not members of the management
Dummy No outside owner	Equal to 1, if company totally owned by managers
Bank Size	Number of bank relationships Natural logarithm of number of employees
Dummy West	Equal to 1 for companies in West Germany

To measure performance, we took the difference between the number of times a company reported a profit increase and the number of times it reported a decrease and compared that with the average response from its industry as a whole. This performance measure was calculated on an annual basis. The exact formula used to give this measure of relative performance is: (no. of "increases" per company per year minus no. of "decreases" per company per year) divided by (no. of "increases" per industry year minus no. of "decreases" per industry per year). For companies with above average performance, the measure will be positive and, for companies with below average performance, it will be negative. (Definitions of the other variables used are given in Table 2.)

The companies included in the sample were relatively small. They had on average only 39 employees. Their managers' average ownership share was substantial, amounting to almost 75% of overall capital. The typical company had six owners, of whom on average one and a half were also managers.

One point to be borne in mind is the possibility of reverse causality. It is possible that the performance of a company has an influence on the size of the ownership share a manager is willing to take. Managers tend to be well informed about the quality of a company before they decide how much to invest. This could lead to higher ownership shares in strong companies and lower ownership shares in weak companies. However, the price that a manager has to pay for his stake needs also to be taken into account. If a company is known to be good, the former owners will charge a high price and the share that the new manager gets will be consequently lower. Nevertheless, if managers are better informed about the potential of a company than the owners, our results might represent an overestimate of the effect of ownership on performance.

The results of the performance equation are displayed in Table 3, column 1. The effect of managerial ownership on performance has the form of an inverted "U". Managerial ownership seems to have a positive effect up to an ownership level of around 50%, but becomes negative above that. This suggests that up to about 50% we see the positive impact of the "incentive effect" for managers, whereas above 50% we see the negative impact of an "entrenchment effect". As measured, these effects on performance are statistically significant.

Other findings from the analysis include:

■ Companies with 100% managerial ownership perform better than companies with some "outside" owners. The reason may be that, in these cases, there is no conflict of interest because there is no separation of ownership and control.

■ The number of managers with ownership stakes has a negative influence on performance, although the effect is not significant in the first regression. It may be that, if there

Companies with 100% managerial ownership perform better

are several owner-managers, it becomes more difficult to agree on company strategy and that the incentive due to ownership is smaller for each individual manager.

■ The more outside owners, the better is the performance. In theory one might have expected this effect to be negative, as a smaller number of owners with a larger share of a company should have more incentive to monitor management performance. However, the data does not show such an effect. It may be harmful to companies, if outside owners exert too much influence, since they are typically less well informed about the business than the managers. The greater the number of outside owners, the smaller the ownership share and the less the influence of each one.

■ The more bank relationships a company has, the worse is its performance. This is compatible with the argument that banks with a high loan to one company will devote more resources to monitoring its management than several banks each with smaller loans. But it could also mean that companies performing badly seek loans from several banks, because no one bank wants to make a big commitment.

Table 3, column 2, gives the results of our regression analysis, including lags of the share variables to allow for the fact



Table 3 Estimation Results of Fixed-Effect Regressions
Dep. Variable: Relative Performance

	(1)	(2)
Share	3.54* (2.16)	
Share (lag)		7.34*** (2.88)
Share squared	-3.17* (1.78)	
Share squared (lag)		-4.32** (2.16)
Owner manager	-0.13 (0.11)	
Owner manager (lag)		-0.50** (0.21)
Dummy No outside owner	0.79** (0.40)	
Outside owner	0.19** (0.08)	0.15* (0.09)
Bank	-0.11* (0.15)	-0.18** (0.08)
Size	-0.21 (0.15)	-0.23 (0.26)
Number of observations:	2797	1434
Number of firms:	1351	777
F-Test:	2.06	3.10
(degrees of freedom)	(7, 1439)	(6, 651)

***, **, * = significant on the 1, 5 and 10 per cent level,
standard errors are in parentheses

that it can take time before changes in ownership have an effect. This confirms the inverted U-form of the impact of managerial ownership. The maximum point increases to around 80%, i.e. we find a positive effect of managerial ownership share up to 80%, above which it becomes negative.

Our analysis of the relationship between company risk and managerial ownership share also found it to be non-linear. Ownership share first decreases as risk rises, then increases before finally decreasing again. The negative relationship between risk and managerial ownership share indicates that managers are risk averse. They prefer to diversify risk by not investing only in the company they manage, especially as they already have their "human capital" invested in it. After a certain point, banks could be reluctant to lend to risky companies. Then the only way a manager can convince the bank to lend is by holding a big personal stake. After a certain level of risk, however, the cost of risk bearing exceeds the advantage of signaling company quality. So we find that in very high risk companies the relationship between risk and managerial ownership share tends again to be negative.

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This article is based on their Discussion Paper "Managerial Ownership and Firm Performance in German Small and Medium-Sized Enterprises" (DP 528), available from the CEP.