If only I could sack you! Management turnover and performance in large German Banks between 1874 and 1913

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Abstract

We analyze the relation of firm performance and managerial turnover in 19^{th} century German banking by probit estimation. This period covers a major reform of corporate governance. Before the reform performance and turnover are unrelated, wheras after the reform more succesfull managers leave firms more seldom. However, only short run performance matters.

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1 Introduction

The major concern of shareholders is that they do not receive the highest possible return on their investment since managers abuse firm resources. The structure of owner-manager relationships can be designed by shareholders and by legislators to reduce such concerns. Ex ante, shareholders can offer performance related payment schemes to newly hired managers. Ex post, shareholders can monitor managers, after the contract with a manager is sealed. If managerial misbehavior is detected, shareholders can replace the agent. However, not all contracts between owners and managers are legal and enforceable. It depends on legal institutions what information principals are entitled to, what

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their ability is to monitor and not the least what actual rights they have to dismiss a manager.

This makes the historical perspective on managerial turnover with German data for the time 1871-1913 in particular interesting. In general, pre-World-War-I data has not been investigated so far, but it is informative to work with data from the German Empire especially since the era covers a substantial reform of corporate governance.[1] So our paper accompanies Burhop (2004a) and Bayer / Burhop (2004) who investigate performance related remuneration of managers in 19^{th} and early 20^{th} century German banking, and the influence of corporate law on this pay-performance relationship. These papers show that managerial remuneration strongly depended on firm performance and that this relationship was tremendously influenced by a major legal reform in 1884, which created the modern two-tier German board system. Similarly, the present paper analyses the impact of the 1884 reform of the German corporate governance code on executive turnover. Thus, the reform actually allows us to compare with each other two historical corporate governance regimes within a–more or less–unchanged socioeconomic setting.

For modern data, the relationship between managerial turnover and firm performance seems to be stable over time and between different countries notwithstanding their major differences in economic structure and corporate governance institutions. There is widespread evidence that managerial turnover negatively depends on firm performance: successful managers are less likely to leave a firm. Huson et al. (2001) present evidence for the US,[2] Conyon (1998) for the UK, Kaplan (1994a) for Japan, and Kaplan (1994b, 1995) as well as Franks / Meyer (2001) for Germany.

Comparing corporate governance systems and their outcomes over longer periods of time can complement the inter-country comparisons of modern systems. Holderness et al. (1999) analyze the change of corporate governance in the U.S. and find that by and large corporate governance did not change very much between the 1930s and 1990s. By contrast, Hadlock / Lumer (1997), report that internal monitoring of managers was weaker during the 1930. We contribute by investigating the relationship between firm performance and managerial turnover under two different historical corporate governance systems in 19^{th} and early 20^{th} century Germany. While we also find a negative relationship between firm performance and managerial turnover for the period after the

[1] See Guinnane (2002) for an overview of the history of the German banking system and Pohl (1981) for a long-term perspective on corporate governance in Germany.

[2] Additionaly, Huson et al. (2001) investigate whether this result is time invariant by splitting the period 1971-1994 in 4 subperiods. They do not find a significant change in the relationship between the likelihood of forced CEO turnover and firm performance.

reform in 1884, there is almost no such relationship before the reform.

The remaining parts of the paper are organized as follows. Section II describes the historical and legal background in late 19^{th} and early 20^{th} century Germany. Section III presents our data sources and descriptive statistics. In the following Section IV, we report the results of our econometric analysis. The final Section V concludes the paper.

2 Historical and institutional background

The foundation of the German Empire in 1871 was a turning point in Germany's political, social, and economic history. Parallel to the Empire's political foundation, many new economic institutions were set up, e.g. a liberal joint-stock companies act (1870-71), a new, gold-based currency (1873-76), and the Reichsbank (1876). During the "Gründerjahre", a "new economy" emerged in Germany, accompanied by a roaring stock market and a company promotion boom, which was partly financed by the substantial French war indemnity of 1871-73. This, jointly with the liberalisation of the joint-stock companies act in 1870, leads to a real boom in the numbers of new stock companies founded. After the act basically every citizen could found a joint-stock company, whereas before a royal concession was needed. Between 1870 and 1873 more than 900 corporations were founded within three years and their stocks sold to investors.

A major shortcoming of the 1870 joint-stock company law was weak corporate governance. Theoretically the new law replaced the former state supervision of corporations by the introduction of a two-tier board system with an executive board (Vorstand) and a supervisory board (Aufsichtsrat), in which the shareholders should have been represented. In practice however, the clear separation of executive and supervisory board could be and was avoided by several means and also the first members of the executive and supervisory board were typically appointed by the company's founder. Moreover, shareholders were sometimes even excluded from the board's election.

Additionally, the voting rights–and also the participation rights–of shareholders on annual meetings could be restricted, and the publication of a profit-loss statement was not compulsory. In addition, the executive board was not responsible to act on behalf of the shareholders or the company, but on behalf of the supervisory board. And finally, weak monitoring rights were aggravated by even weaker legal means to punish managerial misbehavior.

The 1873 stock-market crash and the failure of many corporations triggered a discussion about the necessary corporate governance reform in Germany.[3]

[3] For example, the influential liberal Reichstag (parliament) member Tellkampf demanded to prohibit joint-stock companies (Tellkampf 1876) completely.

In 1884, a fundamental reform was finally enacted. This new joint-stock companies law introduced many fundamental features of the modern German corporate law. For the first time, the new law strictly separated the functions of the supervisory and the executive board. Since then, the supervisory board had to be elected by the shareholders, and both boards were accountable to the shareholders. Moreover, the minimum face value of shares was significantly increased and they had to be fully paid-up before quoted on a stock-market. In addition, all shareholders got participation and voting rights on the annual meeting, the publication of a profit-loss statement and a balance sheet in the official government newspaper was prescribed. Finally, the penalties for misbehavior of executive and supervisory board members were significantly increased (Ring 1890; Hopt 1980).

Although the effectiveness of the 1884 law was questioned by some contemporaries, this discussion rather focussed on possible extensions of the reform, than on the general direction of the reform itself (Warschauer 1902; Philippovich 1909). In general, the reform was perceived as an improvement of corporate control and corporate governance (Hessberger 1889, p 57). In fact, the reform was a success.

3 Data

Data source for this paper is Reitmayer (1999) which includes information about total assets, dividends, share price, nominal share capital, and all executive board members by name and years of board membership for 24 member banks of the Preußenkonsortium (bank consortium for the emission of Prussian government debt) for the years 1871 to 1914. Since a large number of the banks was actually only founded between 1870 and 1873, we restrict the data set to observations after 1874.

Although the market value is not explicitly included in Reitmeyer (1999) we can compute it as the nominal value of issued capital times the share price. The dividend yield, DY, we calculate as the dividend in year t relative to the price of a share at the end of year $t-1$.[4]

The data on board members that we have contains all members of the board of executives for each company. This allows to calculate the total number of members on the board for each year for each company. Moreover, this tells us how long each board member has been on the board up to the date when he leaves, which is also the date at which we stop the observation for the particular board member.

[4] This dividend yield should highly correlate with the total return on equity since for the period under study we know from Burhop (2004a) that the actual dividend and the current accounting profit are almost perfectly collinear.

To account for the long-run performance of a board member we calculate the average growth rate of total assets, GR, for each board member from the time he joined the company. Analogously we calculate the average dividend yield for each manager beginning at the time that he joined the board of executives.

The observation of each manager begins the year after he joined and it ends the year before he leaves. If a manager quits in the following period this is indicated by a dummy variable. Unfortunately, we cannot distinguish whether a board member left the board voluntarily or whether his leave was forced.[5] In total we have 2910 observations (i.e. managers-board-membership-years), 570 of these fall in the period 1874-1883 and the other 2340 observation in the later period 1884-1913.

Although the frequency of leave is larger (5.94%) in the latter period than in the former (4.73%), both subsamples do not differ significantly with respect to the probability of a manager leaving, see table 1. However, they do differ in other respects: Both, the dividend yield and the annual growth of share prices is on average larger between 1874 and 1883. Yet, the difference is only significant for the dividend yield.[6] At the same time, also the volatility of share-price growth and the volatility of dividends is much larger, so that the higher yield on shares in the early period reflects higher uncertainty before 1884. In line with this, also the frequency of financial distress indicated by a reduction in the nominal share capital is much larger in the years before 1884. In summary, this gives some ex ante indication that the reform in 1884 indeed reduced the risk of investors by improving the set of corporate governance mechanisms available to them.[7]

4 Results

We conduct our analysis of the performance turnover relationship with the widest possible set of performance measures our data allows for. So we include the dividend yield and the change in share price to account for short run performance. To account for the long run, we include the average dividend yield since the manager enters the board, the average growth rate of total assets since the manager joined and the average growth rate of the share price. However, the share-price changes and the dividend yield are substantially correlated, so that we cannot include both in a single regression. Also we

[5] However, we do not observe any manager moving from one firm to the other.

[6] The risk-free interest rate, e.g. given by Prussian government bonds does not significantly differ between both subperiods, and hence the results still remains valid if we only focus on the yield spread against these bonds.

[7] Though, a limitation of this data set should be noted. Ownership data are not included since such data are generally unavailable for 19th century Germany. In view of the fact that studies for modern Germany did not find a significant influence of ownership structure on managerial turnover, we expect this limitation not to be crucial (Kaplan 1994b, p 155).

Table 1: Descriptive Statistics (of binary choice) variables by subperiod

Variable		Frequency	p-val, difference
Manager leaves the board	1874-1883	0.0473	
	1884-1913	0.0594	0.118
Reduction of nominal capital	1874-1883	0.0877	
	1884-1913	0.0025	0

Variable		mean	p-val, difference	std. dev.	p-val, difference
DY*	1874-1883	5.65		1.81	
	1884-1913	5.02	0	1.07	0
DS*	1874-1883	1.80		16.51	
	1884-1913	0.56	0.32	9.15	0

*Mean and variance are calculated on the basis of 188 and 615 bank-years for both respective sub-periods. P-values come from two sided t- and F-tests on the equality of mean and variance.

check for relative performance evaluation by including the average dividend yield over all companies. To capture firm size effects, we enter the number of board members and the total value of assets in the estimation, for age effects we include the length of tenure of a manager. Also, we include a dummy for a reduction of nominal capital to capture a restructuring of the bank. Finally, we interact all performance regressors with a dummy for the time period after the corporate governance reform in 1884. Table 2 presents the results of a probit estimation.

In model 1 we use the dividend yield as a performance measure, whereas model 2 measures performance on the basis of share-price changes. The most striking result of Table 2 is that almost all but the short-run performance measures are insignificant even at a 10% level. Short-run performance also only influences managerial turnover after 1884–at least when we draw inference using a 5% level of significance. After the reform the better performance results in lower turnover. Besides short-run performance, the only other factor that influences managerial turnover in our sample is the incidence of a reduction of nominal capital, which indicates a financial distress and restructuring. But even for this variable the effect is only significant after 1884.

Neither before nor after the reform in 1884 relative performance evaluation or long-term firm strategies play a role. The former we capture with mean dividend yield of all banks in a given year, the latter we account for by including the average growth of assets. This still holds true if we test for joint significance. Doing such a test for tenure actually reveals that the single p-values are misleading in this case. Together–before and after 1884–the parameter of the tenure variable are jointly significant below the 1% level. Since tenure proxies age in our sample, this result reflects that age influences the

Table 2: Performance Turnover Relation, General Model

	Model 1		Model 2	
	Coefficient	P-Value	Coefficient	P-Value
Dividend Yield (DY)	0.111	0.088		
DY*(t>1883)	**-0.219**	**0.010**		
Av. DY of a Manager (ADY)	-0.087	0.366		
ADY*(t>1883)	0.051	0.663		
Mean DY at time t (MDY)	0.021	0.767		
MDY*(t>1883)	-0.234	0.095		
1-Yr Share-Price Growth (DS)			0.965	0.100
DS*(t>1883)			**-1.866**	**0.023**
Av. DS of a Manager (ADS)			-0.852	0.561
ADS*(t>1883)			0.951	0.621
Av. Growth of Assets (AGR)	-1.819	0.357	-2.025	0.327
AGR*(t>1883)	2.930	0.172	2.702	0.228
Tenure	0.024	0.398	0.061	0.098
Tenure*(t>1883)	0.000	0.998	-0.038	0.309
Number of Board Members	0.027	0.272	0.040	0.131
Total Assets	-0.089	0.064	-0.069	0.168
Capital Reduction	0.252	0.437	0.249	0.487
Capital Reduction*(t>1883)	**1.274**	**0.048**	**1.528**	**0.032**
t>1883	0.951	0.100	0.441	0.242
constant	**-1.763**	**0.002**	**-2.160**	**0.000**
Number of obs	2807		2473	
LR χ^2 (18) / (13)	50.920	0.000	38.530	0.000
Pseudo R^2	0.041			0.035
Log likelihood	-591.04			-546.38

turnover of managers.

To reduce the estimation uncertainty we move from the general specification we also tried a more specific specification (Tables not reported for brevity but available upon request) by removing all regressors that are insignificant at the 10% level in both model 1 and 2. Qualitatively the results remain unchanged. Finally, we also tried a specification that splits the sample (again not reported for brevity) to allow for heteroscedastic errors in both sub-periods, before and after the reform. This specification just confirmed our previous evidence: Before 1884 managerial turnover was virtually unaffected by firm performance, whereas afterwards short-run performance measures (and financial distress) have an important influence on the turnover decision.

5 Conclusion

This paper investigates the relationship between performance and managerial turnover for German banks in the late 19^{th} and early 20^{th} century. A period that covers a substantial legal and instititutional reform, the "Actienrechtsnovelle" in 1884. This reform introduced modern corporate governace institutions for joint-stock companies in Germany.

We find, in contrast to other studies that compare managerial turnaover across different corporate governance systems of modern economies, substantial differences in the performance turnover relationship. Before the reform, managerial leave was virtualy unrelated to performance. After the reform performance significantly influences the turnover of managers. In fact, this result is not all too much surprising, since the legal standard suggested no direct control of managers by the shareholders. Manager were supposed to act in the interest of "the firm" itself but not to act in the interest of the shareholder. This changed in 1884, and thereafter short-run performance became important.

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