

CORPORATE GOVERNANCE AND THE DYNAMICS OF OWNERSHIP OF GERMAN FIRMS BETWEEN 1997 AND 2007

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Abstract

La Porta et al. (1999) find that countries with weak corporate governance tend to have higher ownership concentration than countries with legal systems that protect shareholders well. Changes in the quality of corporate governance are often followed by adjustments in ownership structure. On a sample of first layer as well as ultimate ownership (10% and 20% cut-off threshold) data for 11 years between 1997 and 2007 for German firms listed in the DAX, we examine the dynamics of ownership structure. We find that ownership concentration strongly declined. Further, foreign financial institutions became an important investor group with an increase of average stake from 0.4% in 1997 to 9.1% in 2007. We conclude that the quality of corporate governance increased and the Germany capital market became more open during that period.

Keywords: corporate governance, ownership concentration, ultimate ownership, Germany

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1. Introduction

Corporate governance and shareholder protection in Germany is perceived to be weak compared to Anglo-Saxon countries (La Porta et al. (1999)). During the last 10 years, however, there have been several efforts to improve corporate governance in order to make German firms more attractive for international investors.

One interesting aspect of corporate governance is its impact on ownership structure. Demsetz (1983) was among the first to argue that ownership structure is endogenous and adjusts in order to maximize firm value for investors. La Porta et al. (1999) find that countries with weak shareholder protection tend to have higher levels of ownership concentration. There is large body of literature providing empirical evidence for the impact of corporate governance on the value of the firm. In parts factors influencing corporate governance of a firm are given exogenously by the prevailing legal environment. But the quality of a firm's governance can also be shaped by the management and its owners. Shareholder protection and rights can also be adjusted on firm level e.g. by reducing anti-takeover provisions or allowing proxy voting. Gompers et al. (2003) was among the first to find that well-governed firms perform significantly better compared to their poorly-governed counterparts (for evidence on German firms see Drobetz et al. (2004)).

Further, the impact of ownership structure upon firm value is also well documented in the literature: extensive research has been done on the influence of

internal/external ownership and concentrated ownership (e.g. Himmelberg et al. (1999) or Thomsen et al. (2006)) and especially on management ownership upon corporate value (e.g. Mørck et al. (1988), Davies et al. (2005) or Kaserer and Moldenhauer (2007)).

The legal environment is argued to have an impact on ownership structure and concentration: laws and regulations implying “weak” governance systems (in terms of legal protection for shareholders) impose higher costs of monitoring and control on shareholders. In order to secure effective control against malicious management and in order to get compensated for the higher monitoring cost by the benefits of closer control of management, a monitoring shareholder has to own a larger stake in the equity of the firm when governance mechanisms are weaker. Thus, in some sense ownership concentration may serve as a substitute for legal protection (see Shleifer and Vishny (1986)). On the one hand this is beneficial for all shareholders due to more efficient monitoring of managers, i.e. mitigating the principal agent conflict between owners. On the other hand it also includes deadweight costs of potential abuse of this power by siphoning benefits out of the company (so called tunneling) at cost of minority shareholders. Furthermore, in the case of concentrated ownership a conflict between controlling and minority shareholders might arise (for a discussion of these effects see Holderness (2003)). On the development of corporate governance in Germany Goergen et al. (2008) summarizes empirical evidence on the convergence in function towards Anglo-Saxon

model. We want to extend this stream of literature by investigating the development of corporate governance and ownership structure over time. We collected annual first layer as well as ultimate ownership data for firms listed in Germany's DAX index over a time from 1997 to 2007 and grouped investors in order to find out if composition and concentration of owners changed since it is widely believed that ownership structures are rather sticky.

This paper is organized as follows. Section 2 describes reasons why Germany is a special case in terms of corporate governance as well as ownership structure and outlines major changes in corporate law during the last 15 years. The methods of how we constructed our data sets are described in Section 3. Section 4 discusses our results and its implications. Section 5 concludes.

2. Major Development in Corporate Governance in Germany

Currently, there is an ongoing debate in Germany about improving domestic corporate governance and in recent years there have been developments to change the legal environment (e.g. Hackethal et al. (2003) or Steger and Hartz (2005)). However, before discussing current changes we want to stress some reasons why German corporate governance is of particular interest for research.

In Germany, a prototype of a bank-based economy, even large firms tended to rely heavily on internal funds and credits provided by their relationship bank as a financing (Franks and Mayer (2001)). The capital market is less developed in terms of size and liquidity compared to Anglo-Saxon countries although German and British capital markets looked quite similar in many ways at the beginning of the 19th century. However, in Britain (inside) ownership concentration decreased in favour of free float whereas it was substituted by outside ownership concentration in Germany (Franks et al. (2005)).

Moreover, at the end of the 1990s it was not unusual even for the largest firms to have multiple classes of shares outstanding. Thus, significant deviations from the one-share one-vote principle were quite common. Often these deviations were used in order to secure the influence of incumbent owners.

Further, German corporate, security, and labor law offer weak shareholder protection (La Porta et al. (1998)) and offers some peculiarities like a two-tier board structure (a supervisory board is controlling the management board) and "co-determination" (Mitbestimmung). "Co-determination" makes representation of employees at the supervisory board mandatory. In most of the cases, employees account for a third to half of the seats at the supervisory board.

Another characteristic is the strong influence of German banks and insurance companies. Only until recently there were strong capital links between the relationship banks and its (corporate) customer. Many

German banks and insurances did not only hold debt but also considerable equity stakes in many large German firms. Further, many banks had and to some extent still have representation on the supervisory board of German firms (for the effects of this see Dittmann et al. (2008)). Additionally, German banks and insurances have a keen voting power and influence on the general assembly due to proxy voting. Due to these factors ownership structures of German firms developed differently compared to their Anglo-Saxon counterparts. Until the beginning of this decade, the ownership structure of Germany's largest firms was tellingly labeled as "Germany, Inc." since it was characterized by a web of cross holdings and pyramidal ownership (among others La Porta et al. (1999), Faccio and Lang (2002) or for the impact of cross holdings see Adams (1999)). The result was a high degree of insulation of managers from capital market pressure. It was hard for raiders to acquire significant voting power in order to gain control. Furthermore, unsolicited takeover offers and unfriendly takeover attempts were almost unknown in corporate Germany.

However, there have been significant changes in the legal and regulatory environment in Germany during the last 15 years. Corporate law has undergone some major changes: most notably the "Law for the Strengthening of Control and Transparency" (KonTraG) increased the power of the supervisory board in controlling management effectively and introduced the possibility for stock-based compensation which was virtually unknown before in corporate Germany. Public and political awareness on corporate governance issues was further propelled by the report of a "Government Commission on Corporate Governance" and a Corporate Governance Code developed and published by the so called "Cromme Commission" containing governance regulations and meanwhile being voluntarily adopted by most large German firms. It is possible to adapt only parts of the Code. Nevertheless, firms not adopting the standards are required to state this in their annual statement. The Securities Exchange act (WpHG) in 1995 and the creation of a new Federal Authority (BaFin) supervising the stock market activities in 2001 additionally fostered the development of the German equity market. In 2001 the German federal government introduced a tax relief for corporations which allow them to sell equity investments without having to pay taxes on profits. The purpose of it was to encourage corporations to disentangle their cross holdings. The introduction of a German takeover act in 2002, including regulations for mandatory offers and reducing managerial discretion in takeover defense measures further increased the level of shareholder protection.

To sum up, even though significant peculiarities of the German corporate and labor law still prevail one might conclude that shareholder protection has materially improved recently.

Year	Number of firms
1997	27
1998	27
1999	28
2000	25
2001	24
2002	29
2003	29
2004	28
2005	28
2006	30
2007	27
total	302

Table 1 – Distribution of observation over time Table 1 shows the distribution of firm years over time.

3. Sample Description and Methodology

Our initial sample consists of 30 German firms listed in the DAX over 11 years between 1997 and 2007. We took data from Commerzbank's "Wer gehört zu wem? – Beteiligungsverhältnisse in Deutschland" in order to construct ownership data using three different definitions: first layer ownership and ultimate ownership using 10% and 20% as cut-off threshold. There are many different definitions of ultimate ownership (e.g. La Porta et al. (1999) for a sample of international data or Köke (2004) for German firms) taking pyramids, cross holdings, and a multitude of voting rights differently into account which sometimes leads to conflicting results. We used the algorithm of Faccio and Lang (2002). However, it was only possible to obtain data for 302 firm years from the above mentioned publication (for the distribution over time see Table 1).

To investigate dynamics of ownership structure we grouped owners into ten different investor classes: The group "Individuals/families" which includes individuals, families and groups of individuals may have emotional ties to firms they own equity in. This may be especially important if they are the founders of the firm. For outside (minority) shareholders, concentrated ownership by families or individual may turn out to be a double edged sword: on the one hand it ensures a close alignment of interest between management and owners, if the founder/manager owns a significant equity stake in the firm (for a comparative analysis of family capitalism see Franks et al. (2008)). On the other hand family owners/managers may reap private benefits at cost of minority shareholders (see Maury (2006)). Further, agendas with respect to other stakeholders (e.g. giving job guarantees) of a family managers/owners may be conflicting with minority shareholders who are interested in maximizing the value of their stake.

"German financials" are of special interest because the influence of German banks and insurances by block holdings, board membership and proxy voting was considered to be one of the major drawbacks of the "old" German corporate governance. There were considerable cross holdings between German financial firms especially in the early years of our sample. One might assume that

banks and insurances were controlled by their management and not by their owners. Further, the interests of banks and insurances might not necessarily be maximizing their equity stake but their combined debt and equity stake they hold in a firm. All owners of voting rights that are non-financial firms with their origin in German are grouped into "German non-financial firms". For firms listed in the DAX these owners are important since some of Germany's recent spin-offs of large firms entered directly into the major index. Another important owner is the "German government". Due to the privatization of state owned companies the German government turned out to be an important capital market participant owning large stakes in some German firms. As entities owned by the government are perceived to be prone to the political decision-making process firms that are controlled or influenced by government authorities deserve particular interest. Two prominent examples in this category are Deutsche Telekom AG as well as Deutsche Post AG. It was impossible to sell the equity at one time to the capital market due to liquidity reasons so the German government remained a block holder for some time after their IPOs. Equity of these firms was mainly bought by small investors.³ Some firms in Germany are owned by foundations ("German foundations"). Foundations holding equity are sometimes established due to tax considerations since they benefit from peculiarities in the German tax code. "Foreign financials" subsumes all financial firms especially foreign mutual funds that do not have their origin in Germany. All non-financial firms that own voting rights in German firms are grouped into "Foreign non-financial firms". Likewise German government, foreign government and government sector entities are comprised in the group "Foreign government". The owner group "Employee" consists of all voting rights held by employees of the firm. The owner group "Not disclosed" comprises all owners who not belong to any of the above mentioned groups. This is especially important for privately owned limited liability firms who are quite common in Germany since we are not able to identify owners of this type of companies.

³ In contrast to that, privatization of former French state owned firms took another path. Since in France small investors were reluctant to buy equity, former state owned firms acquired each others equity leading to an ownership structure characterized by cross holdings likewise the Germany, Inc. (see Harbula (2006)).

Year	Individual/family	Not disclosed	German financials	German non-financial firms	German government	German foundation	Foreign financials	Foreign non-financial firm	Foreign government	Employee	Sum
Panel A – Sample of first layer ownership data											
1997	6,88	6,42	12,94	2,20	7,51	1,41	0,42	0,04	1,39	0,41	39,61
1998	7,29	5,97	11,50	1,96	5,58	1,96	1,50	0,04	0,48	0,32	35,40
1999	8,70	5,55	10,24	2,53	5,71	0,78	0,48	0,20	0,54	0,35	35,07
2000	9,84	7,93	6,31	5,42	2,25	1,00	0,46	0,53	0,60	0,08	34,43
2001	9,94	4,57	4,86	3,84	10,11	0,93	1,27	0,52	0,63	0,50	37,19
2002	8,28	4,12	8,44	2,81	5,99	1,00	2,31	0,00	0,51	0,17	33,63
2003	6,62	4,42	6,39	2,16	5,75	0,94	2,98	0,00	0,40	0,14	29,80
2004	7,08	3,17	4,53	1,94	5,72	1,11	3,38	0,00	0,26	0,33	27,52
2005	7,05	2,53	3,11	0,44	2,19	0,92	4,40	0,62	0,33	0,38	21,96
2006	6,79	3,12	1,74	4,72	3,22	0,83	5,59	0,34	0,24	0,31	26,89
2007	3,14	3,48	1,50	3,89	3,13	1,09	9,08	0,48	0,35	0,34	26,48
total	7,37	4,61	6,48	2,82	5,15	1,03	2,95	0,24	0,51	0,30	31,48
Panel B – Sample of ultimate ownership data using a 10% cut-off point											
1997	6,14	7,62	4,30	0,00	9,60	1,09	0,00	0,00	1,39	0,00	30,14
1998	6,22	5,18	6,64	0,00	5,58	1,09	0,91	0,00	0,48	0,00	26,10
1999	7,98	5,45	4,88	0,00	5,49	0,60	0,00	0,00	0,00	0,00	24,40
2000	9,64	7,09	1,77	3,37	1,95	0,67	0,00	0,50	0,00	0,00	24,99
2001	9,38	5,46	1,89	3,48	8,43	0,72	0,00	0,52	0,00	0,00	29,88
2002	7,10	2,41	2,31	0,83	5,56	2,40	0,96	0,00	0,00	0,00	21,56
2003	5,96	5,56	1,39	2,77	3,19	0,67	1,30	0,00	0,00	0,00	20,84
2004	6,71	4,70	2,61	0,00	5,53	0,74	1,45	0,00	0,00	0,00	21,75
2005	6,55	3,76	0,73	0,00	3,60	0,74	1,75	0,00	0,00	0,00	17,12
2006	6,65	3,23	0,33	0,50	4,19	0,83	1,70	0,00	0,00	0,33	17,76
2007	4,04	1,87	0,00	0,00	4,92	0,98	4,55	0,00	0,00	0,00	16,37
total	6,89	4,71	2,42	0,95	5,24	0,97	1,17	0,08	0,17	0,03	22,64
Panel C – Sample of ultimate ownership data using a 20% cut-off threshold											
1997	4,09	1,34	1,60	1,35	8,31	1,09	0,00	0,00	0,91	0,00	18,68
1998	4,87	1,34	3,20	1,35	4,93	1,09	0,91	0,00	0,00	0,00	17,69
1999	4,93	1,29	0,72	2,23	5,49	0,00	0,00	0,00	0,00	0,00	14,66
2000	6,36	1,04	0,84	4,53	1,20	0,00	0,00	0,00	0,00	0,00	13,97
2001	5,47	2,52	0,00	2,95	8,43	0,00	0,00	0,00	0,00	0,00	19,37
2002	4,21	0,87	0,00	0,83	1,08	1,75	0,96	0,00	0,00	0,00	9,70
2003	3,54	3,16	0,00	0,00	4,92	0,00	0,96	0,00	0,00	0,00	12,57
2004	3,71	2,71	0,00	0,00	4,88	0,74	0,00	0,00	0,00	0,00	12,05
2005	3,71	1,81	0,00	0,00	2,95	0,74	0,00	0,00	0,00	0,00	9,22
2006	4,28	2,06	0,00	0,00	3,09	0,83	0,00	0,00	0,00	0,00	10,25
2007	1,48	0,93	0,00	0,00	4,92	0,98	0,00	0,00	0,00	0,00	8,31
total	4,21	1,74	0,57	1,14	4,51	0,67	0,26	0,00	0,08	0,00	13,18

Table 2 – Development of average aggregated ownership data over time Table 2 depicts the development of average aggregate ownership stakes over time with respect to different investor groups. Panel A shows results for the sample on first layer ownership data while Panel B (C) shows results for the sample of ultimate ownership data using a 10% (20%) cut-off threshold. "Individual/family" comprises voting rights held by families and individuals. The sum of voting rights of owners that are either privately owned firms or do not fit in one of the other categories are listed under "Not disclosed". Stakes held by German banks, insurances, and mutual funds are subsumed by "German financials". Voting rights held by German non-financial firms are denoted by "German non-financial firms". Stakes held by foundations are listed under "German foundations". "German Government" marks voting rights held by the German government and entities of governmental sector. All stakes held by financial institutions and insurances that are not based in Germany are subsumed by "Foreign financials". The stakes of non-financial firms that are not based in Germany are denoted by "Foreign non-financials". Voting rights held by foreign governments or governmental sector bodies are denoted by "Foreign government". Shares owned by employees of the companies are marked by "Employee". "Sum" denotes the sum of all voting rights held by the ten different owner groups.

To examine changes in the quality of corporate governance we measure ownership concentration. Since concentrated ownership is a substitute for good corporate governance an increase in the quality of corporate governance should be followed by a decrease of ownership concentration. We measure ownership concentration by calculating the Herfindahl index for the five largest shareholders for each firm and then averaging over all firms for each given year. The index $H(x)$ is the sum over the squared percentages of the equity stakes:

$$H(x) = \sum_{i=1}^n (s_i)^2$$

Clearly, the higher the shareholder concentration, the higher is $H(x)$. Moreover, the highly non-linear features of $H(x)$ should be noted: $H(x)$ is 0.25 if there is one owner holding 50% and all other stocks are in free-float and 0.05 if there are five owners holdings a 10% share each.

4. Results and Their Implications for Corporate Governance

One of our most important results is the material decrease of German financial institutions as owners when looking at first layer owner data (see Table 2 Panel A). Their stake drops from 12.9% in 1997 to 1.5% in 2007 while foreign financials increase their stake up to 9.1% coming from under 1%. In 2007 they have become the largest group of owners of DAX firms. Furthermore, the importance of individuals and families as owners of DAX firms also declines over time. The average stake of the German government fell to 3.1% coming from 10.1% in 2001. All other owner groups remain more or less constant in their stake of voting rights.

When taking a look at ultimate ownership data in Table 2 Panel B it becomes clear that individuals and families are still an important group of owners as they ultimately own 6.9% of voting on average over time and about 4% in 2007. However, on the ultimate level the German government and, for the late years of the sample, foreign investors become more important than individuals. Further, the significance of German financials vanishes completely while foreign financial gained importance. When looking at the ultimate ownership data using a 20% cut-off threshold (Table 2 Panel C), neither German nor foreign financials are of any significance. This might have two rather technical reasons: first, since there were frequent cases of cross holdings among German financial firms, many of their voting rights simply cancel each other out. Although this effect is also present in the ultimate ownership sample using a 10% cut-off threshold, it is more severe when applying the stricter definition. Second, foreign investors are not owners in the sense of this definition because mostly they only

own between 3% and 5% of voting capital each. There is hardly any case in which a single foreign financial firm owns more 20% of voting rights, thus, they drop out. The decrease of entanglement and emergence of foreign investors is shown in the anecdotic case of the network of cross and pyramid holdings around Munich Re and Allianz which formed the “heart” of “Germany, Inc.” (see Figure 1).

It might be deduced that voting power and control of German financial institutions has been decreasing significantly over time. However, our study only takes a look at equity participation and leaves stakes in debt as well as seats on supervisory board aside. Therefore, the influence of German financial institutions might have decreased less than the numbers would suggest while foreign financial firms have taken their place. This can be taken as evidence that German equity markets are integrating into the global capital markets.

Besides changes in composition of owners, it is also remarkable that the overall concentration of ownership sharply decreased over time. In 1997 there were on average about 40% of all voting rights in the hands of block holders. This number dropped to 26% in 2007, i.e. the average ownership concentration decreased by 35% within only 11 years. The effect is stable in the ultimate ownership samples: there is a decline from 30% (19%) to 16% (8%) when looking at ultimate ownership data using a 10% (20%) cut-off threshold. Further, the Herfindahl index of ownership concentration shown in Table 5 also declines over time. The effect is stable for all three ownership definitions. It should be noted that there is a sharp decline after 2001 which might be attributed to the 2002 tax relief act mentioned above which made it possible for firms to sell off equity holdings without being taxed for profits.

Further, Table 5 shows that the number of widely held firms increased for the two ultimate ownership definitions. Being widely held on the first layer would mean that the firms have a free float of 100% while it means on ultimate ownership level that the firms do not have a ultimate owner according to the definition. We take this as evidence that the quality of corporate governance increased over time. It seems that investors reduced their controlling share over time since improved rules provided them with better possibilities to control and in the case of low performance punish management.

5. Conclusion

We investigate the development of corporate governance and ownership structure in Germany over 11 years between 1997 and 2007. Further, we review the most important changes in the legal framework. We find that the composition of owners changed significantly over the time of the sample. The assumption that ownership is rather sticky over time

seems to be rather contestable. The importance of German financial firms as owners sharply declined during the last years of the sample while foreign financials build up a significant average share of voting rights. Since most other groups only declined slightly in their average stake, we suspect that German financial firms were substituted by their international counterparts, especially mutual funds. We take this as evidence that Germany is now more attractive for participants of the international capital markets.

The average ownership concentration of Germany's largest firms dropped over the years. Since ownership concentration is a substitute for effective corporate governance we take this as evidence that the legal changes aiming to improve the quality of Germany's corporate governance worked well. Further, it seems that investors can efficiently monitor management with an on average smaller stake in voting rights now. This can be taken as evidence that the legal changes helped mitigate agency conflicts between managers and owners.

We expect that Germany will become even more open for international investors and that the concentration of owner will further decrease. It would be an interesting task to compare the dynamics of ownership structures between different countries with respect to changes their legal system.

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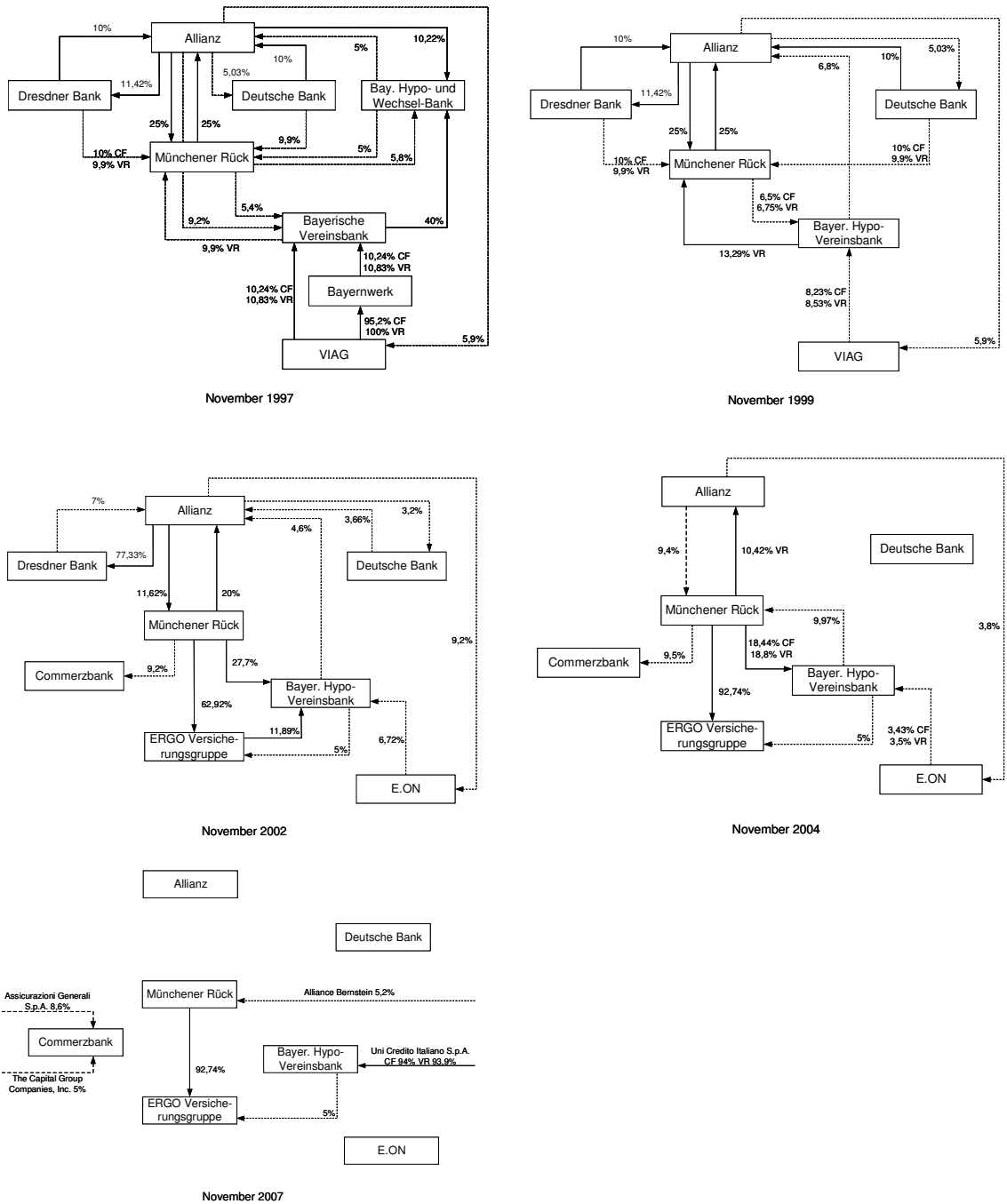


Figure 1 – Development of Allianz–Munich Re net over time Major shareholders within the Allianz–Munich Re net and the disentanglement of these companies over time. Dotted lines mark possession of at least 5% of voting rights while solid lines mark ownership of at least 10% of voting rights. In the case of deviation of one share-one vote, voting rights (VR) and cash flow rights (CF) are stated separately.

Year	First layer ownership		Ultimate ownership 10% threshold		Ultimate ownership 20% threshold	
	Herfindahl index	Widely held	Herfindahl index	Widely held	Herfindahl index	Widely held
1997	0,10394	0,00%	0,09978	14,81%	0,08876	51,85%
1998	0,09906	0,00%	0,09270	18,52%	0,08586	55,56%
1999	0,09517	0,00%	0,08143	21,43%	0,08023	64,29%
2000	0,10460	4,00%	0,08906	16,00%	0,07889	72,00%
2001	0,12529	0,00%	0,13133	25,00%	0,11682	62,50%
2002	0,07386	0,00%	0,07192	34,48%	0,03839	75,86%
2003	0,06686	3,45%	0,07594	31,03%	0,06431	72,41%
2004	0,06345	3,57%	0,06957	28,57%	0,05636	71,43%
2005	0,04569	3,57%	0,05261	42,86%	0,04232	78,57%
2006	0,06082	6,67%	0,04846	33,33%	0,03855	73,33%
2007	0,03887	0,00%	0,05924	44,44%	0,02148	74,07%
total	0,07874	1,99%	0,07820	28,48%	0,06363	68,54%

Table 3 – Development of average ownership concentration over time Table 3 shows the development of ownership concentration proxied by the Herfindahl index of the voting rights of the five largest owners as well as the percentage of widely held firms over time with respect to the three different ownership definitions.