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## The Politics of the German Company Network

MARTIN HÖPNER AND LOTHAR KREMPEL

*Max-Planck-Institute for the Study of Societies, Paulstr. 3, 50676 Köln, Germany*

**ABSTRACT** *For over 100 years, the company network was a major feature of organized corporate governance in Germany. This paper uses network visualization techniques and qualitative-historical analysis to discuss the structure, origins and development of this network and to analyse the reasons for its recent erosion. Network visualization makes it possible to identify crucial entanglement patterns that can be traced back historically. In three phases of network formation – the 1880s, 1920s and the 1950s – capital entanglement resulted from the interaction of company behaviour and government policy. In its heyday, the company network was de facto encompassing and provided its core participants, especially the banks, with a national, macroeconomic perspective. In the 1970s, increased competition among financial companies set in. In the 1980s and 1990s, declining returns from blockholding and increased opportunity costs made network dissolution a thinkable option for companies. Because of the strategic reorientation of the largest banks toward investment banking, ties between banks and industry underwent functional changes. Since the year 2000, the German government's tax policy has sped up network erosion. Vanishing capital ties imply a declining degree of strategic co-ordination among large German companies.*

**KEY WORDS:** Corporate governance, Political economy, Network analysis

### Introduction

One of the key features of the German model of capitalism is a dense network of relationships between large companies, often referred to as 'Deutschland AG' (Germany Incorporated) in public discussions. This article analyses the structure, history of and current developments in the German company network. What kind of network structure did the largest German companies establish? In which stages did it evolve? Is it eroding? And, if so, why?

This article makes three major points. The first point is methodological. It is shown that network analysis can be improved by combining network visualization techniques, which provide information about structural relationships, with qualitative-historical narratives.

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*Correspondence Address:* Martin Höpner, Max-Planck-Institute for the Study of Societies, Paulstr. 3, 50676 Köln, Germany. Fax: +49-(0)221-2767555; Tel.: +49-(0)221-2767188; Email: [hoepner@mpi-fg-koeln.mpg.de](mailto:hoepner@mpi-fg-koeln.mpg.de)

Secondly, the article highlights the contingency of network evolution, which is driven by the interplay of company behaviour and the political ideology of governments. The network originated in the era of industrialization and expanded in two waves in the 1920s and the 1950s. It is shown that the survival of the capital network was no forgone conclusion in German history. At two historical moments, network dissolution by law was a conceivable option for governments: in the Nazi era and at the end of the Social Democrat/Liberal coalition period in 1982. Thirdly, it is argued that qualitative network analysis needs to pay attention to the changing functionality of the network. In the 1970s, the network was used to protect companies from hostile takeovers. In 1997, by contrast, Deutsche Bank used its seat on Thyssen's supervisory board to support Krupp's hostile takeover bid for Thyssen. Links between companies, like other institutions (Thelen 2003), can be used as instruments for aims different from their initial historical purpose.

Since the company network is part of a wider range of institutions of German 'organized' capitalism, this combination of network visualization and historical narrative contributes to the debate on national varieties of capitalism. In Germany, competition between companies was embedded in inter-firm co-operation in the form of interlocking shareholdings and directorates (Windolf & Beyer 1996; Beyer 1998; Windolf & Nollert 2001). In its heyday, the network was a 'quasi cartel', well-organized internally and protected against external influence. It provided its core participants – above all, the large banks – with a common macroeconomic orientation based on an interest in the development of the national economy as a whole. The qualitative analysis here comes to the conclusion that this period has drawn to a close and that the degree of co-ordination and organization of the German production regime is declining.

The analysis starts by visualizing the company network in its state in early 1996 (Figure 1).<sup>1</sup> The figure draws on data provided by the Monopoly Commission (Monopolkommission

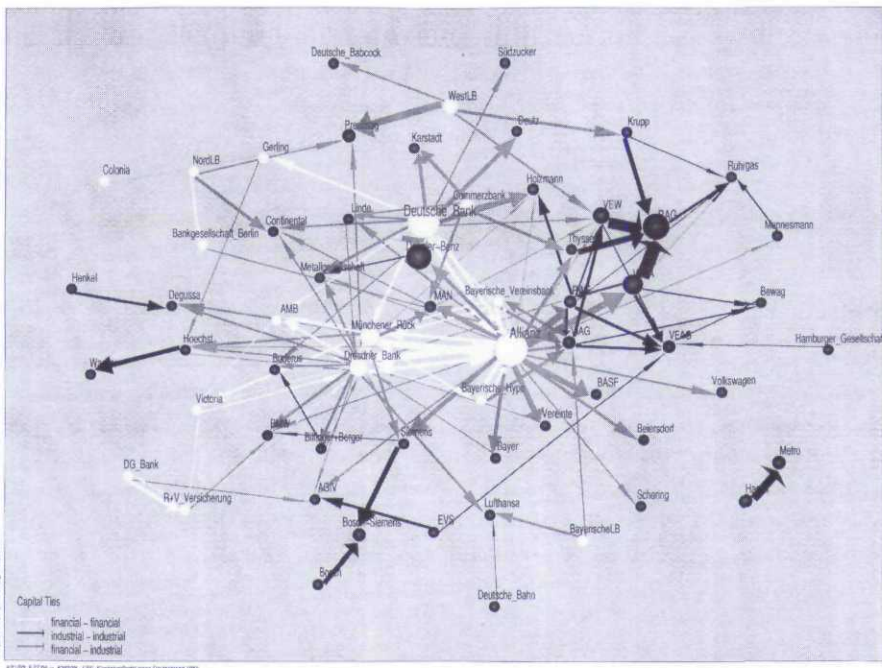


Figure 1. The German company network in 1996.



1998; 2002) and shows all of the 100 largest German-based companies that were connected with at least one other company in the same sample. Companies are displayed as points, and capital interlocks between them as arrows. An arrow that points from Deutsche Bank to the mechanical engineering firm Metallgesellschaft means that Deutsche Bank owns shares in Metallgesellschaft. The size of the point represents the degree of involvement in the network rather than company size. The degree of involvement was calculated by adding both active network participation (i.e. the company's shareholding in other network companies) and passive network participation (i.e. the shares of the company held by other companies in the network).<sup>2</sup> Colours are also used here as a distinguishing feature. Financial companies are plotted as white points and non-financial companies as dark grey points. Finally, three different kinds of links between firms are distinguished: white arrows show connections among financial companies; dark grey arrows represent connections between industrial companies;<sup>3</sup> and light grey lines indicate industrial shares held by financial companies, as well as the rare case of financial companies held by industrial firms (for further information on the visualization technique, see Krempel 2004). This visualization technique is a good complement to statistical network analysis (Krempel 1999; Brandes 2001).<sup>4</sup> The aim of descriptive statistics is to make complex data structures visible by condensing data into indexes. This technique performs a similar exercise by transforming a complicated dataset into one visualizable figure.

What can be learned from Figure 1? Instead of a group of isolated networks (like the Japanese *keiretsu*), 60 of the 100 largest German companies are involved in a single network. The network has a complicated structure in which most of the companies are connected with more than one other company. The network has an identifiable core that consists predominantly of financial companies. In this core, one finds heterarchical connections; heterarchical means that companies like Deutsche Bank and Dresdner Bank are simultaneously actively and passively involved. One also finds reciprocal cross-shareholdings. Deutsche Bank, for example, holds shares in the insurance firm Allianz, while Allianz simultaneously owns Deutsche Bank shares.<sup>5</sup>

However, cross-shareholdings are virtually absent in the industrial sector. Even hierarchical connections between the largest industrial companies are rare, as indicated by the small number of dark grey lines in Figure 1. An exception to this rule is the relatively large company cluster located in the north-east of Figure 1, which consists mainly of companies from the energy sector and a few firms in heavy industry.<sup>6</sup> These companies were characterized by significant levels of national and regional state ownership. Most of them were regionally orientated state monopolies which did not compete with each other until the liberalization of the European energy sector. A second, much smaller, cluster of shareholdings among the largest German industrial corporations is centred on Siemens (electronics), which holds shares in the automobile firm BMW and in household appliances manufacturer Bosch-Siemens (which, in turn, is co-owned by Bosch). All other connections between industrial companies represent single investments.<sup>7</sup>

Heterarchical links are, therefore, typical of the financial sector but are not a characteristic of the company network as a whole. As Beyer (2003: 134) has pointed out, direct reciprocal shareholdings (i.e. A holds B and B holds A) tend to be limited to the connections with the insurance company Allianz. Industrial companies are connected by hierarchical lines leading to one or more of the financial core companies.

### *The Origins of the Company Network*

This section analyses the origins of these company links, as well as political support and opposition to them.



*Imperial Germany (1873–1918).* Close relationships between financial and industrial companies as well as between different financial companies can be traced back to the era of industrialization in the second half of the nineteenth century. When Deutsche Bank was founded in 1870, its first spokesman for the board of management was Georg von Siemens from the Siemens family. From the outset, co-operation between Siemens and Deutsche Bank was very close. Commerzbank, which was also founded in 1870, started out by co-operating closely with trading companies (Kurzrock 1970: 39). The insurance company Allianz has been connected with other financial companies since its foundation in 1889. One of its founders, Carl Thieme, was a former director of insurer Münchner Rück, and shares in Allianz were held by Deutsche Bank, Dresdner Bank and Bayerische Vereinsbank (see arrows in Figure 1).

The big banks' strong commitment to founding and financing industrial companies began after the 'founders' crisis' of 1873–1879. When banks organized the distribution of shares from newly founded corporations or from increases in capital stock, they often retained a portion of the shares in their own portfolio. This sometimes occurred unintentionally, when the demand for new share issues was lower than expected. In order to limit risks from large financial transactions, banks formed consortia. The conversion of nonperforming loans into shares owned by banks also became common practice at this time.

Starting in the 1880s, it was typical for large German banks to accompany industrial companies 'from the cradle to the grave'. An example of this is the founding of the electronics firm AEG in 1883/87. Deutsche Bank purchased about one fourth of the newly issued shares for its own portfolio and organized the distribution of the rest of the shares as head of a large consortium (Eglau 1989: 20). In fact, Deutsche Bank continued to be involved in AEG until the company was dissolved in 1996. Deutsche Bank, together with Siemens, was also involved in the founding of the steel pipe producer Mannesmann in 1890. Max Steinthal's handling of the Mannesmann crises as its supervisory board chairman until 1905 is a good example of Deutsche Bank's board members crucially intervening in the matters of industrial firms (Pohl 1982: 263; Gall 1995: 40–44).

Co-operation between firms was encouraged by the state. The Stock Corporation Act of 1884, an amendment to the 1843 Prussian act regulating stock corporations, delegated supervisory power to the supervisory board instead of to the shareholders' meeting (Jackson 2001: 132). The prevailing view among companies and in politics was that pure competition was not the best way to inter-firm relationships. Instead, state promotion of cartels was preferred. In 1879, this issue was discussed in the Reichstag in the 'cartel debate', which was initiated primarily by Bismarck's shift from free trade to protectionism. At the same time, national peak associations representing economic interest groups emerged and developed rapidly. The 'Central Association of German Industrialists', for example, was founded in 1876 (Lehmbruch 2001). Cartelization was initiated in the mid-1880s and cartels were seen to operate most effectively in the coal, iron, steel and chemical sectors. In 1897, the supreme imperial court decided that cartels were consistent with basic principles of German law. It is striking that, at the same time, cartels were prohibited in the USA by the Sherman Anti-Trust Act of 1890.

*Weimar Republic (1918–1933).* Company co-operation in the Weimar Republic can be understood as a culmination of the tendencies that emerged in the period 1870–1918 and during World War I (1914–1918). Lehmbruch (2001) locates the decisive historical step towards organized (i.e. non-market) economic regulation after the First World War. Characteristic features of this period were: (1) waves of development of new relationships between financial and industrial companies, especially during the 1923–1924



and 1929–1933 economic crises; (2) mergers and the formation of cartels; (3) new forms of company co-operation such as the cartel-like ‘community of interests’ (*Interessengemeinschaft*); and (4) the initial emergence of ‘corporatist’ interest mediation (Lehmbruch 2001: 71) in the sense of encompassing interest organizations that co-operate with the state. The 1920s were also an active time for bank conversion of bad credits into long-term industrial shareholdings.

One of the most prominent relationships in Figure 1, the large cross-shareholding between the insurance companies Allianz and Münchner Rück, is a good example of the organization of markets among large companies in the 1920s (Feldman 2001: 10). In 1921, the CEOs of both companies signed a co-operation agreement that set Münchner Rück’s equity participation in Allianz at 25 percent. At least three managers of each insurance company were allowed to sit on the other company’s supervisory board. Allianz agreed to restrict itself to insurance origination and Münchner Rück to the re-insurance business. Münchner Rück’s existing first insurance subsidiaries were transferred to Allianz.

In heavy industry, the formation of the steel trust Vereinigte Stahlwerke was the outstanding event of 1925 (Reckendrees 2000). A parallel development also occurred in the chemical sector in 1925 with the integration of competing chemical firms (including the forerunners of the three large firms Bayer, BASF and Hoechst) into one entity, the IG Farbenindustrie (Pohl 1982: 302–303).

The degree of bank involvement in these concentration and organization processes varied. An example of a high degree of bank participation is the merger of Daimler and Benz in the year 1926, which was essentially planned by Deutsche Bank board member Emil von Strauss (Pfeiffer 1987: 49; Eglau 1989: 30–31). Strauss’s aim was to build a large automobile trust involving BMW as well, but the realization of this plan did not go beyond a reciprocal cross-shareholding and interlocking directorate between Daimler-Benz and BMW. In the process, Deutsche Bank acquired Daimler-Benz shares that it held for decades (see Figure 1). Examples of shareholdings that resulted from non-performing credits or from bank attempts to prevent unwanted takeovers are Deutsche Bank’s investment in sugar producer Südzucker in the late 1920s, and Commerzbank’s shareholding in the retailer Karstadt, which stemmed from the crisis years of the early 1930s (for the stability of both share ownerships, see Figure 1).

In the Weimar Republic, markets were replaced by company co-ordination in order to prevent overproduction, to stop prices from decreasing in times of reduced demand, and to guarantee a predictable share of profits to a large number of firms even in times of crises, which was especially important for creditors (Beyer 2003: 124). However, the role of bank credits in German industrial financing should not be overestimated. The limited pressure for dividends from relatively underdeveloped capital markets allowed for a high level of retained earnings and, as a consequence, limited demand for external finance. In all of the phases of organized capitalism discussed in this article internal finance was more significant than bank credits and secondary share issues (Pohl 1982: 300, 353, 406; Abelshausen 1983: 72; Holtfrerich 1995: 574; Vitols 2001: 181). The banks’ position as industrial policy centres was, therefore, a result of the multiple relationships that German universal banks had with industry rather than of an exceptionally high demand for bank loans. The banks were simultaneously supervisory board members, creditors, share owners, organizers of consortia and executors of the voting rights of dispersed shareholders (including large voting blocks in their own shareholders’ meetings).

The significance of company co-operation and the importance of banks could be seen in the composition of industrial supervisory boards during the Weimar Republic. Ziegler’s 1927 survey of the supervisory boards of 78 large German firms provides insight into



the density of the network. In the case of stock corporations in the iron and steel industry, Ziegler (1997: 106–111) found that 28 percent of supervisory board members came from banks and an additional 36 percent represented industrial interests. The supervisory board was increasingly being used not only to oversee companies but also as a mechanism for business co-operation in production and finance (Jackson 2001: 134). Up until 1931, when the maximum size of supervisory boards was limited to thirty seats, there were no rules governing the size of supervisory boards. In its 'natural' (i.e. unregulated) state, for example, the AEG supervisory board had 36 members (Ziegler 1997: 10–11) and was, therefore, much more capable of supporting co-operation and information flows between business partners than of overseeing the company.

Up until 1923 there was no state regulation of cartels or competition. This contrasted with the situation in the USA, England and France, where anti-cartel legislation was introduced before World War I. When the grand coalition government of Gustav Stresemann passed the first cartel law in 1923, its aim was to protect the interests of cartels rather than to prevent cartel formation and company co-operation (Jackson 2001: 135). There was a strong societal consensus that organized markets were better than pure competition (Lehmbruch 2001). This was supported not only by *laissez-faire* liberalism, but also by the ideas of the political left, which were best expressed in the writings and speeches of Naphtali (1969) and the late Hilferding (1924). For trade unionists and Social Democrats in the late Weimar Republic, interlocked capital represented the more developed model of capitalism and was, therefore, closer to socialism. The relationship between the organized economy and the public sphere was increasingly seen as a reciprocal one, in which – in contrast to the Leninist view – firms used the state and politics used organized capital as tools to achieve their respective aims. Liberal competition policy, in the view of the left, would, therefore, have been a backward rather than a forward step (for details, see Höpner 2003b).

*The Nazi dictatorship (1933–1945).* In the late Weimar Republic, both *laissez-faire* and state-interventionist movements on the left and on the right opposed the idea of a rigid state competition policy. The balance of power between liberalism and state interventionism changed in the latter days of Weimar. The economic crisis of 1929–1933 was also a crisis of the idea of *laissez-faire*, thereby eroding opposition to more state intervention. After the national elections in July 1932, at least two thirds of Reichstag members represented anti-*laissez-faire* ideas: Communists and Social Democrats on the left (14.3% and 21.6%, respectively) and the Nazi party (NSDAP) on the far-right, with its 37.3 percent share of votes. A radical transformation of the German financial system was an open option, since after the banking crisis of 1931, the topic was on the political agenda anyway. As a first step, the crisis resulted in an increase in banking supervision in 1932, as well as of the acquisition of a large part of bank shares by the state as one of the stabilization measures.

Right from the start, the NSDAP was hostile to the financial sector. Financial capital, according to Nazi ideology, was disembedded from its national context, in the service of Jewish interests and was 'raffendes' instead of 'schaffendes' (profit-seeking instead of working) capital. In his 1925 published pamphlet 'Mein Kampf', Hitler (1925/1999: 213) wrote, 'the hardest battle would have to be fought, not against hostile nations, but against international capital' which was 'robbing the enterprises' (Hitler 1925/1999: 314). Thus, the survival of the banks' entanglement with industrial corporations through the Nazi period was not a forgone conclusion. The relationship between different types of industry and the NSDAP is the subject of numerous controversial debates (see the overview in Turner 1974), but there seems to be a consensus that 'Hitler's assistants'



were located more in heavy industry (the political activity of the steel baron Fritz Thyssen is a well-known example of this) than in the financial sector.<sup>8</sup>

Initially intended as a starting point for a larger-scale reform of the financial sector, the Nazis inaugurated an investigative commission on bank affairs. Its chairman Wilhelm Keppler explicitly focused on bank-industry relationships, saying that 'finance capital seeks to rule the economy instead of serving it. Share block ownership and proxy battles in supervisory boards and shareholders' meetings do not belong to the proper functions of banks' (quote from James 1995: 323; own translation). However, the Nazi elite did not make extensive reform of the banking sector a top priority. The cartel-like banking system and the banks' ties with industrial corporations were not dissolved and the new banking law passed in December 1933 was limited to increasing banking supervision and some risk-minimizing restrictions on large credits. In 1936 and 1937 the re-privatization of the large banks and insurance companies was completed (Kurzrock 1970: 73).

The Nazis had two different positions in their policy towards the financial sector. First, starting in 1937, private banks were subject to 'Aryanization', which meant in practice the expropriation of Jewish holdings in banks. Secondly, they politically controlled the investment flows of banks in order to use them for mobilization for the war. For the Nazis, banks and insurance companies were agents that were supposed to manage their own funds according to the needs of the state. In 1934, corporations were prohibited from paying dividends of more than six percent (or, in exceptional cases, 8%). This helped support industrial self-financing and limit the attractiveness of shares (Pohl 1982: 405). Increases in the capital stock required permission from the state. These restrictions greatly increased the demand for government bonds on the capital market. In 1938, insurance companies were prohibited from investing in the construction sector; after 1939, at least two thirds of investment flows had to be committed to government bonds, and a catalogue of permitted investment alternatives was introduced for the last third of investment (Arps 1976: 214).

After the failure of the 'Barbarossa' campaign against Russia in 1941, the German economy shifted towards a more organized system in which private property remained intact, but wages, prices and investment flows were controlled by the state. In this phase, a second wave of verbal attacks on banks occurred. In particular the 'Schutzstaffel' (SS) agitated against banks as war profit-seekers and demanded the nationalization of the large banks. Again, the banks' influence over industrial companies was a main target (James 1995: 390–395). However, Hitler refused to respond to such demands, arguing that National Socialists should not assume any responsibility for banks.

By and large, the company network remained stable in the years of the Nazi dictatorship. Moderate disentanglement in some cases was more or less counterbalanced by reinforced ties in other cases. For example, when the automobile and armaments manufacturer BMW increased its share capital in 1936, Deutsche Bank added a portion of the new shares to its own portfolio. In 1942, in order to help crisis-ridden BMW, the steel trust Vereinigte Stahlwerke acquired a BMW share block (James 1995: 396, 398). In the early 1940s, the industrialist Günther Quandt (a member of the family that owned BMW) collected shares in the construction company Holzmann until he held 25 percent of the equity. Since this violated a state decree that prohibited unauthorized changes in ownership structures during wartime, Quandt transferred the share block to the Deutsche Bank, which retained a part of it and, therefore, increased its stockholding in Holzmann (see Fig. 1). Further portions of the share block were sold to companies like the tobacco company Reemtsma and the detergent producer Henkel (Eglau 1989: 68).



*Federal Republic of Germany (since 1949).* After World War II, the largest trusts such as IG Farben and Vereinigte Stahlwerke were dissolved and the largest banks were separated into independent regional units. However, the banks were not forced to give up the shares they had acquired during the previous decades. Furthermore, no radical break was made in 1945 with regard to public control over the financial resources of banks and insurance companies. State dominance over financial companies was only gradually eroded to make way for a more reciprocal relationship.

Economic planning remained important in Germany until the early 1950s. The import and export of raw materials, all infrastructural issues, housing, food and capital markets remained highly regulated. As was the case before 1945, the allocation of resources by financial companies was seen as a public matter. This allocation was subject to political negotiation and was, therefore, treated like a component of the national infrastructure. Trade unions, for example, demanded that insurance companies should be required to invest four fifths of their funds in mining and electricity; similarly, the Association for Public Housing wanted to require insurance companies to invest 70 percent of their assets in the construction of new housing (Borscheid 1993: 27).

Ironically, in the context of the Korean crisis, the American Allies blamed the German economic system for being too market-driven, since too many investment resources were spent on the 'useless' consumption sector (Abelshauser 1983: 76). In addition, the 1950 energy crisis increased the demands for more economic planning. In 1950/51, in order to prevent state intervention, peak associations drew up a voluntary set of investment rules that governed the allocation of capital and raw materials for different economic sectors. Again, company co-operation and industrial associations evolved in a parallel manner. The peak association BDI (Bundesverband der Deutschen Industrie, Federation of German Industry) in particular gained in importance in these years of economic planning. The hierarchical corporatism of the Nazi years turned into a 'neo-corporatism' that relied on self regulation rather than state intervention. However, it would be misleading to overemphasize the voluntary character of these investment activities, as resistance against the desires of the state, the public and, above all, the Allies would have been futile at this time.

In this context, insurance companies invested large amounts of their funds in residential construction as well as in coal mining, steel and electricity. First in 1951, in collaboration with the economic ministry, the insurance industry association developed lists of qualified investment classes. A large part of Allianz's industrial investment in these years appears to be based on these lists (Borscheid 1990: 429–431).

In the Adenauer era, criticism of the power of the banks and of their industrial ownership was practically non-existent. Political attitudes towards banks were largely 'clientelistic' and the state's influence over banks was increasingly counterbalanced by the banks' control over resources of the state. A good example of this is the relationship between Deutsche Bank and the state-owned Kreditanstalt für Wiederaufbau, which had distributed the Marshall Plan funds for Germany. Industrial ownership by banks was not only accepted, but also encouraged by the state. An important aspect of this was the legal privilege for major shareholdings (*Schachtelprivileg*), according to which dividends from the ownership of more than 25 percent of companies were not subject to taxation. At the same time, capital gains from the sale of share blocks were taxed heavily. As a consequence, incentives to retain industrial ownership were much greater than incentives to dispose of it. An example of this was Dresdner Bank's acquisition of 25 percent of the shares of the mechanical engineering firm Metallgesellschaft. As a result, this company has been subject to shared Deutsche Bank and Dresdner Bank influence (see Figure 1) (Eglau 1989: 63, 67). Likewise, the (still decentralized) Deutsche Bank and its *de facto*



chairman Hermann Josef Abs enlarged its shareholding in sugar refiner Südzucker until it reached the 25 percent threshold in 1956.

Another favourable condition for the development of the company network was the lack of requirements for disclosing share block ownership up until the passage of the Stock Corporation Act Amendment in 1965. Unimaginable in the context of today's standards of transparency, even industrial share blocks of greater than 25 percent did not have to be disclosed if classified as financial assets instead of associated companies on the banks' balance sheets. As a justification of this loophole, Abs was quoted as saying 'we don't want to shout this [ownership of large shareholdings] from the rooftops' (Spiegel 1966). In 1959, when Deutsche Bank made a second attempt to build a large automobile conglomerate by merging BMW with Mercedes-Benz and the shareholders' meeting of BMW was convened to decide on the merger, the BMW supervisory board chairman was obliged to admit that his company, Deutsche Bank, owned 25 percent of Mercedes-Benz and that Deutsche Bank was, therefore, prone to an obvious conflict of interests. After that, the BMW shareholders voted against the merger.

The Stock Corporation Act Amendment of 1965 also limited both the number of supervisory mandates allowed per person and the maximum size of supervisory boards. It turned out, however, that both measures had practically no impact. As bank managers transferred supervisory board mandates to other managers from the same corporations, the overall structure of interlocking directorates remained the same (Albach & Kless 1982; Beyer 2003). The aim of limiting supervisory board sizes was to reverse the shift in their function from company supervision to monitoring company co-operation that had been taking place in previous decades. The supervisory boards of banks in particular were seen as being much too large to allow for effective supervision. As a reaction to the legal reduction in the maximum supervisory board size, Commerzbank, Deutsche Bank and Dresdner Bank established additional committees, with the same sizes and composition of personnel (and also the same salaries) as their original supervisory boards. 'I don't mind whether or not we call ourselves supervisory board members, as long as we can meet routinely in order to discuss our economic problems', said one industrial member of the Dresdner Bank supervisory board in 1966 (Spiegel 1966).

With regard to the line of conflict between competition policy and clientelism, Economics Minister (and, since 1963, Chancellor) Erhard had always been in a minority position in the Christian Democratic Party (CDU), and Adenauer's support for Erhard's liberal ideas, in particular, was limited. It was not until the time of the Social Democrat/Liberal coalition that some significant liberalization measures were passed against the resistance of economic interests, among them the 1973 anti-cartel law. Furthermore, Social Democrats pushed the public banking sector into greater competition with private banks in order to break up *de facto* cartels. At first glance, it may seem puzzling that Social Democrats behaved in a more liberal manner here than the CDU. One explanation is that Social Democrats and trade unions adopted a liberal attitude to such competition and corporate governance issues as a result of German corporate collaboration with the Nazis during the Third Reich. A second explanation for this is the prevalence of Keynesian thinking among politicians like Schiller (economic minister 1966–1972) and Schmidt (economic minister 1972–1974 and chancellor 1974–1982), who were convinced that Keynesian monetary and demand policy required functioning markets in order to be effective.

The Social Democratic Party (SPD) attitude towards the company network was much more ambivalent than the position of the governments in the 1950s and 1960s. On the one hand, in some exceptional cases, politicians called upon the banks to invest in industrial companies when sheiks from oil-producing countries used 'petrodollars' to



acquire stakes in German companies or in order to prevent bankruptcies. This did not lead to a third wave of entanglement. However, it did lead to some spectacular incidents, such as Deutsche Bank's acquisition of Mercedes-Benz shares in 1974, which temporarily made Deutsche Bank the majority shareholder of Mercedes-Benz, with a 57.5 percent share block (Büschgen 1995: 657). On the other hand, Social Democrats – supported by a public debate on the power of the banks – used the bankruptcy of the private bank Herstatt in 1974 to introduce a commission on banking issues so it could initiate a discussion on a broader reform of the banking system in Germany. The commission published its report in 1979, and suggested that banks should not be allowed to own more than 25 percent of industrial companies (Studienkommission 1979: 267). In sum, an implicit coalition in competition policy issues evolved in which both neo-liberals on the one side and trade unions and Social Democrats on the other side favoured competition over quasi-cartelization. As long as measures aimed at regulating organization on the capital side, but not on the labour side, on anti-cartel policy, competition policy and corporate governance issues, the German Social Democrats became not the party for 'politics against markets', but sided with the Liberal Party in opposition against the CDU (for details, see Höpner 2003b).

At the same time, the Liberal Party, encouraged by its economic expert Graf Lambsdorff, took some significant steps away from economic clientelism towards economic liberalism. The first of these steps was the publication of a programme by the FDP economic committee in 1975 (Spiegel 1975), in which the Liberal Party began to call for the privatization of public ownership and for a stronger competition and antitrust policy. In 1979, Lambsdorff surprised both the public and bank managers alike when he used the 'Bankentag' (the meeting of the peak association of German banks) to announce that a federal law ought to forbid banks from holding industrial share blocks greater than 15 percent, *i.e.* it should be stricter than the 25 percent limit originally proposed by the banking commission (Spiegel 1979).

After the 1980 elections, finance minister Matthöfer (SPD) announced the government's intention to pass legislation on this matter in the new legislative session (Spiegel 50/1980). At no point in German history, including during the Nazi era, was government support for a statutory reduction of ties between financial and industrial companies stronger than during the years 1979 to 1981. Only the coalition change initiated by the Liberal Party (FDP) in 1982 saved the financial companies from this measure. Instead of passing a prohibitive act, the government of the new chancellor Helmut Kohl lowered the 'major shareholding privilege' (*Schachtelprivileg*) threshold from 25 percent to ten percent in 1993, which actually increased banks' tax incentives to acquire industrial shares (Eglau 1989: 78). In response, Deutsche Bank increased its shareholding in Allianz until it reached the new 10 percent threshold.

Thus, it can be argued that the 1980s were already a decade of change rather than of stability of the German company network. The last major example of investment bank behaviour to save 'Germany Inc.' occurred in 1992/1993, when Deutsche Bank increased its shareholding in the tyre producer Continental in order to help the company's management fight an attempted hostile takeover by the Italian company Pirelli (Höpner & Jackson 2001).

### **Competition and Change: Cutting Back Capital Ties**

Although the actual erosion of the capital network took place in the second half of the 1990s, it is argued here that changes in the core of the network already began in the 1970s.<sup>9</sup> Figure 2, which shows the state of the company network in 2000, provides first indications of an erosion process. Between 1996 and 2000, a large number of



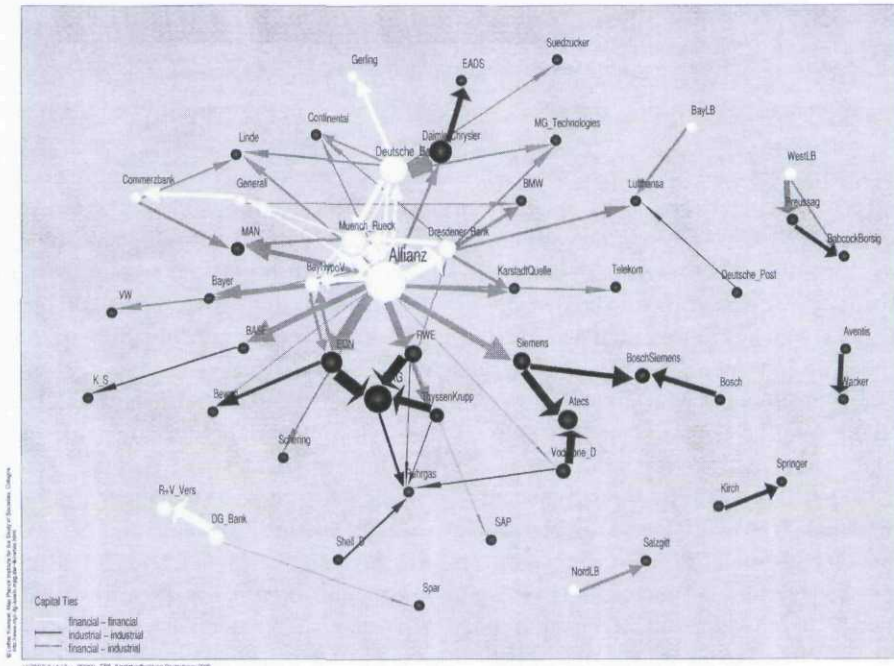


Figure 2. The German company network in 2000.

restructurings, mergers and acquisitions took place, which rendered only 23 of the network participants in 1996 and 2000 directly comparable.<sup>10</sup> Although these networks are not directly comparable because of these changes, differences between them nevertheless provide some clues about the nature of network erosion and qualitative changes in the logic of the network.

In 2000, 41 companies were connected, compared to 60 in 1996. The number of capital ties between the 100 largest companies dropped from 168 to 80, while the number of capital ties between the network participants has fallen from 143 to 72. The amount of net value added represented by the capital links has declined to a nominal 86 percent from the 1996 amount. The complex energy and steel cluster of 1996 has been reduced to the three companies – e.on, RWE and ThyssenKrupp, which are owners of RAG (Ruhrkohle AG). However, the most significant changes have occurred in the centre of the network. The core of financial companies still exists, but has become smaller, less entangled and less connected with industrial companies. By combining these indications with qualitative information, it can be shown that the three waves of network formation were followed by a process of increased competition and a decrease in capital links.

In the 1950s and 1960s, the core of the company network was characterized by a commonly shared national orientation. The large financial companies had invested in so many industrial companies that problems in every significant part of German industry endangered the stocks and credits of every core member of the network. A precondition for the national economic orientation of the core participants was the readiness of each participant to intervene in order to prevent company crises. From the 1970s onward, this shared perception inside the core became increasingly fragile. Tensions, divergent strategies and competition arose inside the financial sector and led to creeping erosion of the common economic orientation.



Starting in the year of the first major economic crisis in the Federal Republic, 1967, Dresdner Bank took significant steps to abandon its macroeconomic orientation and was blamed for 'rough' business methods (Spiegel 1976) – which meant a lack of a societal, national perspective. During the crisis of the steel company Krupp in 1967, Dresdner Bank was criticized for its reluctance to support the anti-crisis cartel, even though it traditionally had closely co-operated with Krupp. In the early 1970s, Dresdner Bank was the first large German bank to centralize its decision-making by adopting an Anglo-American-style CEO management model (Hanley *et al.* 1986). Diverging bank strategies clashed in 1974 when Dresdner Bank CEO Ponto helped the Quandt group to sell its Mercedes-Benz share block to an investor group in Kuwait. Both government and opposition, along with key representatives from the business community, were unanimous in their criticism of Dresdner Bank (see the interview with Ponto in Spiegel 1974).

Facing the threat of petrodollar inflows, the conflict between Deutsche Bank and Dresdner Bank split the German company network into two camps. Industrial companies collaborating with Deutsche Bank, like the steel tube producer Mannesmann and the chemical firms Bayer and BASF, adopted unequal voting rights to prevent unsolicited influence from outside 'Germany Inc.' Dresdner Bank, however, advised 'its' industrial companies, such as the chemical firm Hoechst, not to follow this practice (Spiegel 1975). A further significant indication of increasingly diverging orientations occurred in the early 1980s. In the run-up to the shareholders' meeting of the crisis-ridden Commerzbank in 1981, Dresdner Bank refused to advise customers with share deposit accounts to vote for the exoneration of the Commerzbank board of directors, which was a unique event in German banking history. The network core companies' trust in each other's macro-orientation was decreasing, implying free-rider problems and calling the coherence of the network into question.

At the same time, financial companies began to retreat from their strategy of expanding their links with industrial companies. In 1973, Deutsche Bank chief Ulrich announced for the first time that the bank would not add more industrial share blocks greater than 25 percent to its portfolio and was even willing to sell some of its industrial shareholdings. This was more than lip service, for Deutsche Bank sold the Mercedes-Benz share block that it acquired from the Flick group (an industrialist family with economic activities in different sectors) in 1975 by offering it on the stock exchange over the next two years. It also sold parts of its traditional shareholdings, for example its shares in chocolate producer Stollwerck in 1972 and 1973, its shares in tyre manufacturer Continental in 1978, and shares in Phoenix (pharmaceuticals) in 1978 (Eglau 1989: 75). In 1981, Commerzbank sold a large part of its Hochtief (construction) shares.

When the banking commission suggested forbidding banks from owning more than 25 percent of industrial companies, the banks – not surprisingly – protested. For example, Hackl, chairman of Bayerische Vereinsbank, said that a legislative prohibition would be inconsistent with the basic right of protection of property. If passed, banks would challenge such legislation in the Federal Constitutional Court. Interestingly, representatives of the largest banks were not among the loudest protesters. Deutsche Bank chief Herrhausen explicitly stated that such a prohibition would not be excessive (see the interview with Herrhausen in Spiegel 1979). This suggests that Deutsche Bank was no longer content with its position in the 'frozen' company network. Bankers hoped that a legislative prohibition would be combined with special tax treatment of the profits on share block sales, which would allow for the recognition of built-up 'hidden reserves'. There are, in other words, good reasons for believing that tax policy protected the company network longer than its core actors actually wanted. Some bankers might have had ambivalent feelings towards the termination of the discussion on the prohibitive act resulting from the change in government in 1982.



Competition in the financial sector increased in the 1980s when the trend towards financial conglomeration tested the willingness of banks to respect the traditional division of influence between banks and insurance companies. Initial attempts by banks to break into the insurance market date from the mid-1980s. In 1986, it was viewed as something of a sensation that the insurance holding Aachener und Münchner Beteiligungs-AG acquired formerly trade union-owned Bank für Gemeinwirtschaft. At the same time, Deutsche Bank founded its own home mortgage bank, and – reciprocally – mortgage market leader Wüstenrot founded a commercial bank. Tensions increased in 1988 when Deutsche Bank announced its intention to found its own life insurance company. This provoked fierce reactions from the insurance sector, and insurance companies demanded that Deutsche Bank should retreat from its plan. When Deutsche Bank refused, Allianz CEO Schieren left the 'Beraterkreis' (advisory circle) of Deutsche Bank (Büschgen 1995: 794). Unlike capital entanglements, interlocking directorates were not protected by tax law, and the reduction in personal ties began earlier than the erosion of capital ties. The degree of interlocking directorates between the 100 largest German companies has been decreasing since 1985, at the latest (Höpner 2003a: 137).

In addition, there are indications that the positive returns from the holding of large share blocks have started to dwindle. Various economic studies have observed the economic effects of different types of ownership structures in Germany. Cable (1985) finds a positive effect of bank ownership on profitability among the 100 largest German corporations in the early 1970s. However, in their study of the economic impact of bank ownership on company performance, Gorton and Schmid (2000) show that a slight positive effect in 1974 had vanished by 1985. Studies that focus on the effects of large share blocks on profitability in the 1980s and 1990s tend to find a negative impact (see the excellent overview that Frick & Lehmann (2004) provide). Lehmann and Weigand (2000) reported a negative impact of ownership concentration on profitability on the basis of a sample of 361 firms in the years 1991 to 1996. Clark and Wójcik (2003) found a significant negative relationship between ownership concentration and share price increases over the period 1997 to 2001. This finding is puzzling, as some of these blockholders – at least, banks and insurance companies – had started to manage their assets more actively with respect to increasing profitability. Greater efforts to 'pick winners' should, therefore, have led to increasing, not decreasing benefits from blockholding.

How can this change in the functionality of blockholding be explained? Let us assume, in accordance with Roe (2003: 129), that positive effects of blockholding are associated with limited competition. Imperfect competition provides insiders with an opportunity to extract rents by, for example, using cash flows for ineffective prestige investments without endangering the survival of the firm. In this situation, supervision by blockholders prevents insiders from rent seeking and, therefore, leads to positive returns. This effect vanishes under conditions of increased competition, which limits the room for manoeuvre for rent seeking. The costs of blockholding may, therefore, start to exceed private benefits (for general discussions on private benefits, see Roe 2001). Blockholding may, in other words, lose its purpose under conditions of strong competition. Beyer's case study of the strategic reorientations of Deutsche Bank and Allianz explores a further effect that decreases the gains from industrial ownership, especially for banks. Industrial ownership originally helped banks to reduce credit risks but, as internationalization increased the general risks to business from outside the sphere of influence of domestic banks (see the data in Albach *et al.* 1999), the competitive edge that industrial ownership had given banks was gradually lost (Beyer 2003: 127–132). However, both positions see declining net benefits from blockholding due to internationalization and, therefore, greater incentives to cut capital ties.



Increased competition in both the domestic financial sector and the international economy led to a creeping reorientation of the large banks towards investment banking. The year 1997 marks a watershed in German banking history. In this year Deutsche Bank first supported a hostile takeover attempt in Germany, with the steel company Thyssen as the takeover target. It is argued here that the co-existence of investment bank strategies and the (decreasingly) close ties with industrial companies marks a transitional stage. However, in this transitional stage, capital ties are again subject to functional change. Traditionally, the company network was seen as an instrument for shielding companies from capital market influences. In 1997, however, Deutsche Bank used its presence on the Thyssen supervisory board to help arrange Krupp's hostile takeover attempt, which turns the traditional functionality on its head.

As to the changing relationship between bank-industry ties and capital market demands, Thyssen was an extreme, but not exceptional, case. In the late 1990s, 'shareholder value' strategies evolved both inside and outside the company network, supported by some of the managers with the largest number of supervisory board seats in the company network. These included Paul Achleitner (Allianz), Rolf-E. Breuer (Deutsche Bank), Gerhard Cromme (ThyssenKrupp), Heinrich von Pierer (Siemens) and Jürgen Schrempp (DaimlerChrysler) (Beyer & Höpner 2003). While the diffusion of high standards of capital market orientation inside the network grew, the national orientation of core participants and, therefore, the internalization of risks declined. This is best expressed by chancellor Schröder's difficulties when he tried to convince banks to invest in the crisis-ridden construction company Holzmann in 1999.

The reorientation towards investment banking produced further tensions that called the industrial ownership of banks into question. In international investment banking, close ties with industrial companies are barriers to generating deals with competitors (Dziobek & Garrett 1998; Beyer & Höpner 2003). Reputation building would be impossible for investment banks which define the protection of domestic industrial companies as a business objective. Hence, the strategic reorientation of the banks speeded up network erosion dramatically, as Figure 2 shows. Furthermore, large banks started to reduce their supervision of industrial companies by reducing the number of interlocking directorates. In 2001, Deutsche Bank announced a general retreat from non-financial supervisory board chairs. Figure 2 indicates that the insurance company Allianz continues to be highly entangled with industrial companies. However, as Beyer (2003: 135–137) showed, Allianz has undergone a reorientation comparable to the strategic changes at the large banks. Allianz has started to change its investment behaviour from stable industrial ownership towards active asset management. A major restructuring that (among other things) tried to increase the freedom of action in investment policy dates from 1985. Even in the decades before active asset management, Allianz's strategy was not so much aimed at gaining industrial influence by acquiring large share blocks, but rather at diversifying its portfolio by acquiring small share blocks from a large number of companies. Allianz today, therefore, is more comparable to a mutual fund than to a strategic actor in old-style 'Germany Inc'.

Since Social Democrats were consistent in their opposition to the company network, the government change in 1998 placed the company network back on the political agenda. In contrast to previous decades, both network participants and politicians questioned the rationale for its existence. When *KonTraG* (Corporate Governance and Transparency Act), a reform act that abolished unequal voting rights and legalized share buybacks and stock options, was debated in 1997/98, the SPD opposition introduced its own reform blueprint and demanded the prohibition of capital ties between banks and industrial companies greater than five percent (Höpner 2003b). In the context of the major tax reform



in 2000/2001, the Schröder government surprised the public as well as investors by opting for the total abolition of capital gains taxes on the sale of large share blocks, without at the same time imposing prohibitions on bank investments. Chancellor Schröder and his finance minister Eichel were convinced that the company network was eroding anyway. They, therefore, saw no need to engage in conflicts with large companies. The CDU opposition, however, criticized the reform as a tax gift for banks. In his election campaign in 2002, the conservative candidate for chancellor, Stoiber, announced his intention to reintroduce the tax, if elected chancellor.

## **Conclusions**

This article discussed the development of the German company network by combining two methods of network analysis: network visualization techniques and qualitative-historical analysis. Network visualization allows identification of structural patterns of the network that can be traced back historically. The narrative focused on the most eye-catching bank-industry relationships. Figures 1 and 2 reveal other prominent patterns of entanglement, such as the complex energy/heavy industry cluster in the north-east of Figure 1, that can be the subject of future research. Furthermore, historical analysis discovers functional changes in company links that would be ignored by a purely structural-quantitative analysis.

Three crucial phases of network formation were identified here – the 1880s, the 1920s and the 1950s – in which capital entanglement resulted from interaction of both company behaviour and politics. The role of politics turned out to be highly contingent and dependent on the ideology of governments. During the Nazi era and in the latter years of the Social Democrat/Liberal coalition (1969–1982), network dissolution by law was on the political agenda. Political support for the company network was, therefore, not a foregone conclusion in German history.

Network visualization provided the first indications of declining network density. Qualitative analysis added evidence for a process of network erosion. Special attention was paid to the three reasons for this process. First, starting in the 1970s, increased competition among financial companies set in. This resulted in a decline of the common shared national orientation of the network core participants. Secondly, in the 1980s and 1990s, a mixture of push and pull factors made network dissolution a thinkable option for financial companies. Under conditions of increased competition, returns from blockholding declined; at the same time, opportunity costs increased, as close co-operation with industrial companies was not compatible with international competition in the field of investment banking. Thirdly, through the end of 1999, the government speeded up network erosion through tax policy.

The narrative here stops in the year 2000. However, network erosion did not cease in this year. The reduction in capital ties between banks and industrial companies continued in the years 2000–2004. As a result of the tax reform, in contrast with the world-wide trend, German merger and acquisition activity rose after the year 2000. The German company network has not vanished. As can be seen in Figure 2, there are still many capital ties between German companies. But their number has been reduced by more than 50 percent and the function of capital ties between financial companies and industrial companies has changed dramatically. The encompassing company network that provided its core participants with a national perspective now belongs to German economic history. It will never re-emerge on a national basis, and it is an open question whether a network of similar density will ever emerge at the European level.



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### Notes

- 1 Colour versions of the network figures can be downloaded at <http://www.mpi-fg-koeln.mpg.de/pu/workpap/wp03-9/wp03-9.html>.
- 2 Involvement is measured in terms of the amounts of the firms' net value added represented by the respective share blocks. The advantage of using net value added is that this measure is not as biased as different capital market valuations (which would be the case if share block prices were used) or towards the high vertical integration of manufacture (which would be the case if yearly sales were used).
- 3 To simplify the terminology, the term 'non-financial companies' refers to industrial companies, which by definition include both manufacturing and trade.
- 4 For statistical analysis of the structure of the German company network, see Ziegler (1984), Windolf and Beyer (1996), Beyer (1998), Kogut and Walker (2001), Windolf and Nollert (2001), Heinze (2002).
- 5 Münchner Rück, Bayerische Vereinsbank, Bayerische Hypobank and Commerzbank also belong to the network core and are both actively and passively involved.
- 6 This cluster is centred on the RAG (Ruhrkohle AG) and its shareholders VEBA, VEW, Krupp and Thyssen. RAG, in turn, holds shares in Ruhrgas. Additional Ruhrgas shares are held by Mannesmann, Krupp, RWE and VEBA. Further energy and utilities companies are to be found in the periphery of this cluster: Viag, Veag, Bewag, EVS and Hamburger Gesellschaft für Beteiligungsverwaltung.
- 7 Daimler-Benz/Metallgesellschaft, Henkel/Degussa, Deutsche Bahn/Lufthansa, Bilfinger + Berger/Buderus.
- 8 However, the example of Deutsche Bank board (since 1933, supervisory board) member Emil Georg von Strauss, who was the vice-president of the Reichstag after 1933, shows that NSDAP involvement could also be found among bankers.
- 9 Unfortunately, due to insufficient data availability, it is not possible to adopt the presented visualization technique for historical points before the mid-1990s. With the introduction of the Federal Securities Supervisory Office (Bundesaufsichtsamt für den Wertpapierhandel, BaWE) in 1994, the transparency of capital links increased, since the disclosure of all capital holdings larger than five percent of target companies was required for the first time.
- 10 Some mergers and takeovers have reduced the number of companies. Mannesmann has been acquired by Vodafone; Thyssen and Krupp have merged; VEBA and Viag have merged (now e.on); and RWE and VEW have merged. A Swedish energy company has acquired VEAG and Bewag. The structure of the energy cluster would be further simplified by the proposed acquisition of Ruhrgas by e.on. In the financial sector, Bayerische Hypobank and Bayerische Vereinsbank have merged to form Bayerische Hypo-Vereinsbank; and Allianz has acquired Vereinte Versicherungen. In the retail sector, Schiekedanz and Karstadt have formed the new company Karstadt-Quelle. The chemical firm Hoechst has merged with the French company of Rhone-Poulenc; the new company, Aventis, has its home base in France. In the insurance sector, Italy's Generali has acquired AMB. Furthermore, some dropouts and new entrants have changed the structure of the network. Bilfinger + Berger, Deutz, Degussa, VEAG and Victoria (acquired by Allianz) have dropped out. New entrants are privatized companies like Deutsche Telekom and Deutsche Post; the software producer SAP; the media companies Kirch and Springer; EADS, which was formerly the aerospace section of Daimler-Benz, has become a separate company, as well as the de-merged parts of former Mannesmann.

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