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Between National Governance and Internationalisation of Business.
West German Chemical Industry after 1945

I. Introduction

Organisational structures and strategic directions of large companies were not only a product of managerial decisions, but they also depended on the political, legal, and cultural contexts; many decisions can only be explained in the light of its specific environment in a broader context – like the Rhenish model suggests. The paper is structured in three parts. First I want to outline the return of the German chemical industry on the world market after the Second World War. In a second part I will analyse the acceleration of internationalisation since the end of the "economic miracle" in the 1970s. In a third part I will highlight the consequences of internationalisation on the German corporate governance system. Among other institutions the Rhenish model was especially characterised by interlocking directorates and financial linkages of joint-stock companies.[1] To what extent did national networks became inefficient in the context of global flows of commodities, global labour division, and global capital flows?

II. The return on the world market after 1945

The German chemical industry experienced a fast rise after the war.[2] Though IG Farben lost two thirds of its assets in East Germany and abroad, its three West German successors (BASF, Bayer, Hoechst) reached 90 percent of total sales of IG Farben in 1953. The export was the engine of growth. With the Korea boom, the German chemical industry came back and was responsible for about 15 percent of all German exports. Chandler notes that the German and Swiss chemical and pharmaceutical companies remained the main competitors of U.S. firms. According to him, market entry barriers in the chemical industry were so large

[1] Michel Albert, *Capitalism against Capitalism* (New York: Wiley, 1993).
[2] Werner Abelshauser, *Deutsche Wirtschaftsgeschichte seit 1945* (München: Beck, 2004), 385-386.

after 1920 that it was nearly impossible for newcomers to gain market shares.[3] The West German chemical industry followed the petrochemical trend with some years of delay. In the early 1960s, half of the West German organic chemistry was already produced from crude oil.[4] While Bayer relied on special plastics, chemical fibers and dyes, as well as crop protection and pharmaceuticals, BASF had a different product portfolio with basic chemicals, fertilizer and industrial products whereas Hoechst had its main focus in the pharmaceutical production and in the production of synthetic fibers and plastics.[5]

At Hoechst and Bayer the re-conquest of foreign markets was a central goal after 1945. Bayer restarted the path into foreign markets via its export business and sales agencies, then it built up production capacities in the United States and Brazil in the 1950s, and in the following decade, it invested more and more in Europe. Hoechst also came back on the world market through sales and trade agencies and relied on its experience from the first half of the 20th century.[6] After the end of Allied restrictions in 1952 the rate of foreign activities increased for the first time. In France and Great Britain the return began with the opening of sales offices, such as the Société Peralta or Lawfer Chemical Company, which evolved into the typical national companies (Société Française Hoechst and Hoechst UK Ltd.) in the following years.[7] In the U.S., Hoechst founded Intercontinental Chemical Corporation (ICC) in 1953. Again, the expansion was accompanied by investments in several sales companies, such as Progressive Color & Chemicals Co. Inc. (1953), the Carbic Color & Chemical Company, Inc. (1957) or the Lloyd Bros., Inc. (1960); in 1961 ICC was renamed in American Hoechst Corporation (AHC).[8] While Hoechst generated only about one million DM in foreign production in 1952, the share of foreign production increased continuously. Here, the gradual transition of foreign activities from sales organisations to production plants becomes apparent.[9] In addition to market intimacy, security of supply played an important role for internationalisation – even before the two oil crises –, and so BASF, Bayer and Hoechst opened works at the infrastructure nodes Antwerp and Vlissingen in the 1960s.[10]

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[3] Alfred D. Chandler, *Shaping the Industrial Century. The Remarkable Story of the Evolution of the Modern Chemical and Pharmaceutical Industries* (Cambridge: Harvard University Press, 2005), 114.
[4] Abelshauser, *Wirtschaftsgeschichte*, 389; Chandler, *Industrial Century*, 9-10.
[5] Paul Erker, "Die Bayer AG. Entwicklungsphasen eines Chemiekonzerns im Überblick," in *Stimmt die Chemie? Mitbestimmung und Sozialpolitik in der Geschichte des Bayer-Konzerns*, ed. Klaus Tenfelde, et al. (Essen: Klartext, 2007), 46-47.
[6] Ibid., 48; Patrick Kleedehn, *Die Rückkehr auf den Weltmarkt. Die Internationalisierung der Bayer AG Leverkusen nach dem Zweiten Weltkrieg bis zum Jahre 1961* (Stuttgart: Steiner, 2007), 226-231, 267-299, 349-351.
[7] Business Archiv Hoechst (BAH), Hoe. Ausl. 138, Geschichte verschiedener Hoechst Gesellschaften Ausland, Länderblätter A-L: Brasilien, Frankreich, Großbritannien.
[8] „Neue Auslandsengagements der Farbwerke Hoechst“, in: FAZ 24.09.1965, 31; „Gemeinsame Tochter Hoechst-Hercules“, in: FAZ 18.05.1966, 20; BAH, Hoe. Ausl. 139, Geschichte verschiedener Hoechst Gesellschaften Ausland, Länderblätter M-Z: USA.
[9] Business Report Hoechst 1965, 16.
[10] Werner Abelshauser, "Die BASF seit der Neugründung 1952," in *Die BASF. Eine Unternehmensgeschichte*, ed. Werner Abelshauser (München: 2002), 498-505; Anna Elisabeth Schreier and Manuela Wex, *Chronik der Hoechst Aktiengesellschaft 1863-1988*, ed. Klaus Trouet, *Sonderausgabe der Dokumente aus Hoechst-Archiven* (Frankfurt am Main: Hoechst AG, 1990), 274.

Hoechst passed through the different phases of internationalisation in a tour de force. Market-specific knowledge explains only one part of this expansion, which was mainly driven by contemporary expectations of future foreign markets. In 1967 its foreign sales became equal to the domestic sales. This value rose to two-thirds of world turnover in 1975 and demonstrates the rapidly growing importance of the foreign market at the end of the boom. In this period, the rate of foreign activities increased for a second time.[11]

III. Internationalisation after the boom

The global economic slump of the 1970s intensified the expansion on foreign markets. Especially for the chemical industry the multiplication of the oil price had a significant impact on the industry's growth.[12] The creation of the European Economic Community led to a process of economic cooperation in Western Europe. Intra-European trade increased and companies had to adapt their strategies to new market conditions. Many companies merged with national or European competitors or set up joint ventures in order to stay competitive. Until the end of the 1980s this strategy was more influenced by europeanisation than by globalisation.[13]

Hoechst CEO Rolf Sammet (1969-1985) identfied the foreign markets as engine of growth. In the light of rising labor, energy and raw material costs the domestic economy appeared less promising. In the mid-1970s Sammet declared, that "the growth will not take place at home but abroad."[14] The hopes in the future markets of the 1960s in South America were fulfilled only partially, and, as a result, Hoechsts' expansion efforts turned to the United States and Europe. In 1970, AHC moved into its new, 20 million dollar headquarter in Bridgewater / New Jersey, demonstrating its claim to the U.S. market. AHC had been converted into a production company in 1965, whose business goal was no longer limited to the sale of West German Hoechst products. Since the mid-1980s the traditionally export-oriented West German chemical companies were convinced by the need to be represented with production sites in all high-selling regions of the world, and with the acquisition of Celanese Corporation for almost six billion DM in 1986 Hoechst demonstrated its will to become an inherent part of the U.S. market.[15]

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[11] Business Report Hoechst 1970, 72-73, Business Report Hoechst 1975, 78; „Deutsche Firmen bauen mehr im Ausland", in: Handelsblatt no. 177, 16.09.1970, 10.

[12] Niall Ferguson et al., eds., *The Shock of the Global. The 1970s in Perspective* (Cambridge: Harvard University Press, 2010).

[13] Neil Fligstein and Frederic Merand, *Globalization or Europeanization? Evidence on the European Economy since 1980* (Berkeley: 2001).

[14] Wirtschaftswoche no. 24, 06.06.1975. Cited according to Petra Struve, "Multinationale Konzerne in der chemischen Industrie der Bundesrepublik Deutschland," in *Multinationale Konzerne. Ihr Einfluss auf die Lage der Beschäftigten*, ed. Klaus Peter Kisker, et al. (Köln: Bund, 1982), 313.

[15] Hicks, Jonathan P.: "Hoechst to acquire Celanese", in: New York Times 04.11.1986; „Fasern und neue Werkstoffe waren der Anreiz", in: FAZ 05.11.1986, 16; „Viel Spielraum", in: DER SPIEGEL 46/1986, 10.11.1986, 137-138; BAH, USA / AHC / Business Reports (1971-1986); Harm G. Schröter, "Competitive Strategy of the World's Largest Chemical Companies, 1970-2000," in *The Global*

In the late 1960s and early 1970s the Hoechst Group expanded more in Europe than in the United States. As growth was primarily based on acquisitions since the end of the boom, the specific abilities of merger partners became a decisive motive. The reasons for cooperation with the French company Roussel Uclaf were based on its research knowledge and its position on the French market. As the co-owner Henri Roussel decided to sell his company shares, his brother and company president Jean-Claude Roussel arranged the sale of 43 percent of Roussel Uclaf to Hoechst in 1968. As Jean-Claude Roussel died, Hoechst incorporated the majority of shares in 1974. With this acquisition – the largest single investment of Hoechst in the pharmaceutical area – Hoechst became the world's largest pharmaceutical manufacturer.[16] Hoechst also expanded in the field of paint production, and in 1970, Hoechst UK took over the British paint producer Berger, Jenson & Nicholson (BJN). Due to another prospective buyer this project proved to be much more difficult and showed the increasing competition on the market for corporate control. An U.S. competitor only pulled out after Hoechst had significantly increased its offer at the UK stock market.[17]

Beside independent start-ups and the classical path, internationalisation based on corporate acquisitions became more and more important. Even in the case of "Algemene Kunstzijde Unie Arnhem" (AKU) and “Vereinigte Glanzstoff-Fabriken AG" (VGF) the two companies agreed on a closer cooperation at the end of the boom. In addition to Ernst Hellmut Vits, leader of the Glanzstoff board, the merger in 1969 was also supported by the supervisory board, headed by Hermann Josef Abs, the longtime CEO of Deutsche Bank.[18] The boards of management and the supervisory boards of both companies were constituted by the same persons, so the new multinational company was integrated into the Dutch and the German corporate network (“NV Nederland” / “Deutschland AG”).[19]

IV. National governance and international business

In addition to AKU resp. Akzo, Deutsche Bank had a sizeable equity stake of VGF and with Hermann Josef Abs (1939-1971), Franz Heinrich Ulrich (1971-1978), and Alfred Herrhausen (1978-1985) also its representatives as chairmen of the supervisory board between 1939 and

Chemical Industry in the Age of the Petrochemical Revolution, ed. Louis Galambos, Takashi Hikino, and Vera Zamagni (New York: Cambridge University Press, 2007), 53-81, here 67.

[16] Ernst Bäumler, *Farben, Formeln, Forscher. Hoechst und die Geschichte der industriellen Chemie in Deutschland* (München: Piper Verlag, 1989), 297-300; Informations des Archives Historiques Sanofi-Aventis (12.03.2012); Schreier and Wex, *Hoechst*, 372.

[17] Bäumler, *Farben*, 305-308; Business Report Hoechst 1967, 19; Business Report Hoechst 1970, 16; BAH, H0073138, Großbritannien, Berger, Jenson & Nicholsen: Offer to acquire the issued ordinary share capital and warrants of BJN (A085); BAH, H0073141, Großbritannien, Berger, Jenson & Nicholsen: Mitteilung der Rechtsabteilung (14.01.1970), Seligman to Asboth (26.01.1970); „Farbwerke Hoechst: Interesse an britischer Gesellschaft“, in: Industriekurier no. 173, 15.11.1969, 18; Schreier and Wex, *Hoechst*, 291; Walter Teltschik, *Geschichte der deutschen Großchemie. Entwicklung und Einfluß in Staat und Gesellschaft* (Weinheim: VCH, 1992), 223.

[18] Lothar Gall, *Der Bankier Hermann Josef Abs. Eine Biographie* (München: 2004); Teltschik, *Großchemie*, 221; Ludwig Vaubel, *Glanzstoff, Enka, AKU, Akzo. Unternehmensleitung im nationalen und internationalen Spannungsfeld 1929 Bis 1978. Band 1* (o.O.: 1986).

[19] Vaubel, *Glanzstoff*, 155-159.

1985.[20] Beside the personnel interlocking with its subsidiaries, Glanzstoff was mainly integrated into the German corporate network by Otto Wolff company and Deutsche Bank. In 1968, on a meeting with the VGF board, Abs stressed that it was necessary to evaluate the chances of survival of Glanzstoff without any partner. According to Vits and Vaubel neither VGF nor AKU could persist alone. The Dutch AKU management had already considered a close cooperation with BASF, but then called for a merger with Glanzstoff.[21] As a consultant of the VGF board Abs played a key role during the negotiations. He did not fear an exodus of German customers, nor did he expect any problems with German codetermination. Rather, he assured the managers that the new group could use the German capital market for increases of capital, bonds or loans. In this context, the AKU-chairman Jan van den Brink had already agreed to let Deutsche Bank participate in the new AKU consortium. Furthermore, Abs supported the merger and used his contacts to introduce Vaubel into Shell and Unilever, so that he could get insights of multinational operating companies.[22]

Abs, also member of the BASF supervisory board, was asked by AKU/VGF to represent the interests of VGF against its competitor Phrix at BASF.[23] This exemplifies that the numerous relations of Deutsche Bank – originally arisen from a credit and capital security interest – could lead to a coordination of competitive companies. Abs was by no means limited to the control of the management – as provided to his role as member of the VGF supervisory board –, rather he was involved in the management by the executive board. The merger of VGF into a multinational company and the change of leadership to his successors did not fundamentally change this principle, even if Abs interfered stronger in business policy than Ulrich or Herrhausen. Even after the foundation of the German-Dutch Akzo Group the multinational corporation remained part of the German national network.

While Glanzstoff maintained close relations with Deutsche Bank, Paul Lichtenberg (1973-1983), manager of Commerzbank, and Egon Overbeck (1969-1988), chairman of Mannesmann, were members in the supervisory board of Hoechst. The former Hoechst CEO Winnacker also joined Hoechst's supervisory board and had a seat in the supervisory boards of Mannesmann, Dresdner Bank and Munich Re. These corporate linkages were maintained in the following years, even if the staff was replaced.[24] The fact that a former CEO, first Winnacker and later Sammet, assumed the chair of the supervisory board was typical of the distribution of power in large German companies and illustrates the dominant position of insiders. Because of this appointment, it was hardly possible for people outside of the German corporate network to influence or to oppose against the chosen business strategy.

[20] In parentheses are the periods of membership in the supervisory board of VGF resp. Hoechst.
[21] RWWA 195-A2-30 Vermerk betr. Besprechung, 25.01.1968; Vaubel, *Glanzstoff*, 142.
[22] RWWA 195-A2-29 Notiz. Vertraulich!, 06.11.1968; RWWA 195-A2-30 Vermerk betr. Besprechung, 25.01.1968; Vaubel, Glanzstoff (1986), 232; „Wir sind die größte Ohn-Macht der Welt", in: DER SPIEGEL 1/1969, 37.
[23] RWWA 195-A2-53 Notiz betr. Besprechung, 10.04.1967.
[24] Handbook of German Stock Companies (1970-1990).

Hoechst's dependence from petroleum became apparent in the acquisition of a 25 percent shareholding by Kuwait Petroleum Corporation after the second oil price crisis. The entry of a new, non-European major shareholder marked a cut in the history of Hoechst and demonstrated the growing power of oil-producing countries. Up to that time, the share capital of Hoechst was widely distributed. Now foreign shareholders had 33 percent of the shares and this proportion increased to 44 percent in 1986, in the same time the proportion of institutional investors rose from 25 to 58 percent. This development speaks for the increase of investors with a lower level of tolerance to negative deviations from the expected operating income, and it increased the takeover risk in view of liberalised national capital markets.[25]

The chemical industry of the 1990s was less characterised by acquisitions than by mega mergers and short-term restructuring.[26] In 1994 Akzo merged with the Swedish company Nobel Industries to AkzoNobel and integrated the British fiber and paint manufacturer Courtaulds four years later. There were influential people of the German corporate network represented in the Netherlands, which supported this development, both in the Akzo board as well as in Akzo's supervisory board. The Hoechst management under CEO Jürgen Dormann (1994-1999) was increasingly orientated towards the concept of shareholder value and arranged the merger with the French company Rhône-Poulenc in 1999.[27] In the eyes of Dormann Hoechst was too little market-oriented and too academic; all this should change under his leadership.[28] With its consequent adaptation of shareholder value and its dislocation of research departments to the United States, Hoechst removed significantly further away from the model of Rhenish capitalism than Bayer or BASF. In contrast to BASF and Bayer, where Allianz as financier of the German economy was still the largest shareholder, the largest equity share of Hoechst was held by Kuwait Petroleum Corporation. However, the function of this investment had changed: while Kuwait initially wanted to expand to higher-value products, the property converted to a pure financial investment with an interest in an above-average performance.[29]

Both Hoechst as well as Glanzstoff finally disappeared from the German corporate network. The shareholder value principle at Hoechst, the destruction of Glanzstoff by an investment company or the hostile takeover of Mannesmann by Vodafone in 1999 mark the end of a

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[25] Stefan Eckert, "Auf dem Weg zur Aktionärsorientierung: Shareholder Value bei Hoechst," in *Alle Macht dem Markt? Fallstudien zur Abwicklung der Deutschland AG*, ed. Wolfgang Streeck and Martin Höpner (Frankfurt am Main / New York: Campus, 2003), 182-183.

[26] Chandler, *Industrial Century* ; Schröter, "Competitive Strategy,", 71-79.

[27] The new corporation was renamed Aventis, and in 2004 it formed with Sanofi-Synthélabo the new company Sanofi-Aventis.

[28] Ariane Berthoin Antal, Camilla Krebsbach-Gnath, and Meinolf Dierkes, *Hoechst Challenges Received Wisdom on Organizational Learning. WZB Discussion Paper* (Berlin: 2003); Ulrich Wengenroth, "The German Chemical Industry after World War II," in *The Global Chemical Industry in the Age of the Petrochemical Revolution*, ed. Louis Galambos, Takashi Hikino, and Vera Zamagni (New York: Cambridge University Press, 2007), 163-164.

[29] Steffen Becker, "Der Einfluss des Kapitalmarkts und seine Grenzen: Die Chemie- und Pharmaindustrie," in *Alle Macht dem Markt? Fallstudien zur Abwicklung der Deutschland AG*, ed. Wolfgang Streeck and Martin Höpner (Frankfurt am Main / New York: Campus, 2003), 223, 239-240.

period of transition in Western European industrial societies during the second half of the 1990s. While some parts of the German production regime persisted, other signals suggest an institutional change of the Rhenish model: The decreasing density of the German corporate network, the increasing turnover rates in the context of new financial market laws, the change of ownership structure and the growing influence of investment funds.[30] While the big corporations of the Rhenish model always had to serve a national interest, the newly structured, multinational companies were more responsive to the economic interests of their (new) owners.

V. Conclusion

The end of the German corporate network cannot be explained solely by internationalisation, but this process had a great impact on the Rhenish model.[31] Despite their strong international orientation Bayer, BASF, Hoechst or VGF remained linked with the German corporate network by their executive and supervisory boards up to the 1980s. The capital investments of banks remained limited, the close relations between the companies became particularly apparent at the personal level. Such networks could rely on specific dependencies as well as on long standing business or personal friendships, at the same time the companies were interested in qualified personnel in their governing bodies. The fragile balance of low profitability, low risk of hostile takeovers and high planning reliability was maintained by a coalition of industrial companies, banks and shareholders. As a consequence the German banking industry relations remained stable in the 1970s and 1980s. However, accelerated international movement of capital led to a capital market and shareholder orientated business policy, so the importance of traditional corporate and customer relationships faded into the background.[32]

By the end of Bretton Woods and the partial de-industrialization in Western Europe, the financial sector had been upgraded and lost its serving function in the course of neoliberal deregulation. Furthermore, the balance of power and decision-making processes at the top of big companies changed. While the executive boards of industrial corporations – in cooperation with the banks – had a considerable weight against the owners' interests until the 1980s, the return on invested capital became significantly more important in the context of rising investment companies and shareholder value. In contrast to long-term corporate strategies even smallest success differences became decisive for the mobile capital of the

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[30] Wolfgang Streeck, *Re-Forming Capitalism. Institutional Change in the German Political Economy* (Oxford: Oxford University Press, 2010), 77-90; Paul Windolf, "Die Zukunft des Rheinischen Kapitalismus," in *Organisationssoziologie*, ed. Jutta Allmendinger and Thomas Hinz (Wiesbaden: 2002).

[31] Streeck, *Re-Forming Capitalism*, 187-206.

[32] Wolfgang Streeck and Martin Höpner, "Einleitung. Alle Macht dem Markt?," in *Alle Macht dem Markt? Fallstudien zur Abwicklung der Deutschland AG*, ed. Wolfgang Streeck and Martin Höpner (Frankfurt am Main / New York: Campus, 2003), 15-17, 27-28.

digital age.[33] West Europe only hesitantly followed the Anglo-American neoliberal model and resistance to neoliberalism prevented a real suppression of the state, however, capitalism was affected to most of these processes, and Rhenish capitalism characterised by long-term financing and stable banking industry relationships faced a particularly great challenge. Even if these changes did not create full convergence – as Hall and Soskice have shown –, Rhenish capitalism changed fundamentally since the 1970s. The internationalisation of the chemical industry operated in the same direction, but certainly was not solely responsible for the change.[34]

The declining part of technicians, the rise of new owners without an interest in permament industrial investments, and new tax and financial market laws facilitated the sale of traditional investments.[35] As a result accompanying personnel linkages for the control of property and market regulation became obsolete. The multinationalisation of chemical companies influenced this process and increased the pressure on the political level to adapt the German tax and financial market regulations to the European trend towards deregulation and liberalisation. Even before the global shocks of the 1970s the managements of VGF and Hoechst decided to reinforce their international engagement. The protected area of the Rhenish model was abandoned in favor of looking for new opportunities for expansion and higher profits; and no European or global counterpart has emerged until today. Wether Michel Albert was right in his assessment, that the greater dynamism and cultural attraction of the American style neoliberal adventure would crowd out the more efficient Rhine capitalism, however, must be questioned due to the resilience of the Rhenish model and the self-demystification of neoliberalism – especially the idea of self-regulating forces of the market – since the financial crisis in 2008.[36]

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[33] Jürgen Kocka, *Geschichte des Kapitalismus* (München: Beck, 2013), 92-99.

[34] Werner Abelshauser, *Kulturkampf. Der deutsche Weg in die neue Wirtschaft und die amerikanische Herausforderung* (Berlin: 2003); Peter A. Hall and David Soskice, eds., *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage* (Oxford: Oxford University Press, 2001); Kocka, *Geschichte des Kapitalismus*, 117-119.

[35] Jürgen Beyer, "Deutschland AG a.D.: Deutsche Bank, Allianz und das Verflechtungszentrum des deutschen Kapitalismus," in *Alle Macht dem Markt? Fallstudien zur Abwicklung der Deutschland AG*, ed. Wolfgang Streeck and Martin Höpner (Frankfurt am Main / New York: Campus, 2003), 137-141; Meindert Fennema and Eelke M. Heemskerk, *Nieuwe Netwerken. De Elite en de Ondergang van de NV Nederland* (Amsterdam: 2008); Wengenroth, "German Chemical Industry,", 152-159, 166-167.

[36] Albert, *Capitalism*; Kocka, *Geschichte des Kapitalismus*, 118; Wolfgang Streeck, *E Pluribus Unum? Varieties and Commonalities of Capitalism* (Köln: MPIFG, 2010), 15-17.