

Adaptation at the Cost of Adaptability? Restructuring the Eastern German Regional Economy

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REDUCING TRANSFORMATION TO PRIVATIZATION:
THE CENTRAL IMPORTANCE OF WESTERN INVESTMENT
IN GERMAN UNIFICATION

In an ironic way, Chancellor Kohl's prediction of 'flourishing landscapes' in eastern Germany is apparently turning out to be true. The shut-down of numerous combines has resulted in the deindustrialization of entire regions. The reduction of industrial employment from 3 million people to roughly 750,000 has in many places left hardly more than 'flourishing landscapes'. This disastrous economic consequence of German unification was inevitable given the radical German approach to privatization. In a sense, that approach mirrors the fatal misunderstanding of Soviet-type socialism. For just as the 'socialization of the means of production' was confounded with a once-and-for-all act of nationalization, so has privatization been reduced to a once-and-for-all transition, with productive assets being transferred from a sphere of what is allegedly public control to a sphere of what is allegedly private control. This transfer to private—mainly western German—control was predicated on a thorough break-up of the combines into separate plants. This dissolution of the combines was expected to enhance the attractiveness of eastern German plants for Western investors.

Discussion in this chapter is focused, first, on the motives of Western corporations investing in eastern Germany. I demonstrate how the initial expectations for economic development in eastern Germany and in Eastern Europe have been sorely disappointed. Almost as soon as the anticipation of growing markets in the East faded, labour costs rose. Second, I reconstruct the strategies adopted by Western corporations to cope with these unforeseen challenges of their investment in eastern Germany. Lastly, I evaluate the impacts that those strategies have had on regional development in eastern Germany. The main argument here is that whereas globally integrated strategies have culminated in the construction of cathedrals in

the desert, multi-domestic strategies have favoured the emergence of locally integrated production networks. This evaluation of regional impacts, however, requires a brief glance backward at the spatial and organizational features of the former German Democratic Republic (GDR) that constitute the 'genetic material' for future development in the economy.

THE LEGACIES OF THE COMBINE-BASED ECONOMY: CORPORATE AND REGIONAL ORGANIZATION OF PRODUCTION IN THE GDR

Autarkic Mass Producers: Corporate Legacies

Despite the rhetoric of the dichotomous, opposed logics of market and planned economies, the post-war organization of production in Western and Eastern European economies followed, at least for a considerable time, a similar basic principle—the model of industrial mass production. In the GDR, central planning aimed at achieving higher levels of efficiency by means of 'concentration and specialization'. Within the GDR no single product was to be produced simultaneously by two different firms. This orientation implied a thorough reorganization of the traditional regional and sectorial production patterns, which were still largely dominated by rather small-scale craft production.

The history of the transformation of these traditional patterns of small-scale craft production culminated in the formation of the combines. The first wave of combine formation, which took place in the late 1960s and early 1970s, embraced about one-third of the GDR's total industrial employment. This model was generalized in a second, all-encompassing wave at the end of the 1970s. Under Erich Honecker, the giant corporation, economies of scale, and technological progress became joint guarantors of economic growth. In 1989 the GDR industry consisted of 126 centrally co-ordinated combines, each with twenty to forty plants and an average of more than 20,000 employees. Additionally, the plants co-ordinated at the district level, as was the case in the construction and food-processing industries, were integrated into ninety-five combines, each employing 2,000 employees on average (IAW 1990, table 4.16).

The combines were the institutional manifestation of 'reproductive self-containment' (*reproduktive Geschlossenheit*). The principle of integrating the main suppliers and basic auxiliary and maintenance functions served to enhance co-ordination and control of the various steps of production. To be sure, the concept of the combines cannot simply be reduced to vertical integration pushed to its organizational and technical limits. The combines also assumed municipal tasks, provided basic infrastructural services, and constituted the central locus of social integration. In other words, they

organized not only work but education, recreation, cultural affairs, and social welfare as well.

However, behind the façade of hegemonic, large centrally co-ordinated combines was anything but the 'precision, promptness, clearness, continuity, discretion, uniformity, strict subordination, savings on frictions, material and personal costs' for which Weber (1922/1978: 561) bureaucratic mechanisms had celebrated. The East German economy corresponded to textbook models of bureaucratic planned economies about as closely as Western European economies corresponded to textbook models of market economies (Grabher 1993). In the GDR, as in other Eastern European countries (Neumann 1993), resources were by no means exclusively allocated by the central planning authorities. In addition, informal networks played a key role in compensating for the country's chronic shortages of raw materials, spare parts, and equipment. Particularly in the highly centralized planned economies of the GDR and CSSR, these informal networks provided a widespread infrastructure for barter (Heidenreich 1993: 7).

This sort of compensatory barter was governed by the principle of reciprocity. Reciprocity is a more general pattern than equivalence, which is said to govern market transactions. Contributions are not expected to balance out in every single exchange act but rather over the entire exchange relation (Grabher 1993: 8). For example, if member A of such an informal network received spare parts or other equipment from member B of the network, member A was not obliged to return a service immediately. However, the receiver was expected to assist other members of the network in a similar situation. This assistance included not only the supply of raw materials or spare parts. Members of the networks were also able to 'pay' with labour or accommodation contingents in the vacation homes owned by the combine. Although most of this exchange took place in the grey area of a personal network reinforced by mutual obligations, some combines turned this informal expedient into an auxiliary organizational device. Within the different production sites of the combines, there circulated special lists (*Pendellisten*) of resources and capacities that were idle and could be used as a kind of buffer inventory to cope with unforeseeable shortages.

These informal compensatory mechanisms between the combines were complemented by the formalized function of the maintenance, tool, and machine-building departments within the combines. In the late 1980s these departments, for which the GDR authorities had invented the term *Rationalisierungsmittelbau*, provided roughly 25 per cent of all investments in equipment and employed more than 70,000 workers (Hase 1990: 351) possessing an extraordinary level of craft skills and 'chaos qualification' (Marz 1992: 9), that is, rich experience in the development of *ad hoc* solutions. However, although the maintenance, tool, and machine-building departments of combines were central assets in day-to-day muddling through, this resulted in macro-economic irrationalities. The relative au-

tonomy of the individual combine encouraged a bizarre dissipation of resources. Whereas, for example, the machine-building combines produced in exceptionally large batch sizes, their input was largely dependent on machines and equipment that they themselves produced. In 1987 about 700 plants were engaged in the production of robots. Their output per year amounted to fewer than seven robots on average (Voskamp and Witke 1990: 18).

The Deregionalized Production System: Spatial Legacies

The concentration of production in increasingly large and autarkic combines was paralleled by a spatial concentration of planning, balance-sheet, price-setting, and trading functions in the central administrations at their headquarters and core plants (*Stammbetriebe*). Because of the strategic (and political) importance of these core plants, few financial and technical resources were ever allocated to the other plants of the combines. Although the formation of the combines initially increased the productivity of the GDR's industry, it culminated in an 'interindustrial organization of the productive system' (Quevit *et al.* 1992: 1).

The inter-industrial organization of the production system had—at least from a contemporary perspective—two disastrous consequences for the regions. First, this model of economic development based on autarkic large mass producers undoubtedly raised the level of industrialization in the lagging northern and eastern regions of the GDR, thereby narrowing the traditional north-south divide. However, this model also gave rise to new regional monostructures and deepened existing ones. In no fewer than fifty-four of the 189 districts of East Germany, the leading industry thus accounted for 40 to 60 per cent of total employment (Maretzke and Möller 1992: 156). Among the most prominent regional concentrations were the chemical triangle described by Halle, Bitterfeld, and Merseburg, a space that accounted for more than one-third of all chemical production in the GDR; the textile district of Cottbus, which accounted for roughly 50 per cent of the GDR's textile output; and the local concentration of steel production within a few large 'single-factory towns' such as Eisenhüttenstadt, Hettstedt, and Riesa (Heinzmann 1991: 102; Heise and Ziegler 1992: 548). The highly selective investment policy of the GDR, which favoured mainly a few ambitious projects in the electronics and data-processing industries and in the military sector, concentrated investment in roughly 20 per cent of the country's combines and, hence, exacerbated regional disparities in growth and productivity (Heinzmann 1991: 101).

Second, owing to the internalization of economic transactions, the notion of the region had no longer any economic meaning. Despite the utilization of the local labour force, the individual plants of the combines had no economic relation with the region in which they were located. The pre-

existing intra-regional forward and backward linkages were severed and superseded by inter-regional linkages within the combines. Thus, the base for regional multiplier effects had been destroyed. Through the internalization of all economic interactions, that is, from the raw materials to the final product, the regions were deprived of agglomeration economies, economies that arise from a diversified regional economic structure and that are essential for the long-term adaptability of regions. In other words, the rationalization of production within the combines and across regional boundaries was a thorough attempt to increase the efficiency of production at the cost of demand flexibility. This flexibility was also provided by the craft-based localized production clusters that were deliberately destroyed as the combines were formed.

THE GERMAN APPROACH TO COPING WITH LEGACIES: PRIVATIZATION AND DISSOLUTION OF COMBINES BY THE TREUHAND

The 'deregionalization' of production was not simply reversed by the privatization and dissolution of the combines, executed by the Treuhandanstalt, the government holding company set up by the Federal Republic of Germany to sell off or liquidate the state-owned business and property of the former GDR. This decomposition typically occurred as an abrupt separation of the individual plants of the combines and a radical down-scaling or shut-down of those departments whose future returns were difficult, if not impossible, to calculate but that were crucial for long-term adaptability. To what extent future economic potential was sacrificed for the sake of rapid privatization may be seen from the wanton destruction of the research and development facilities. Between the end of 1989 and the autumn of 1992 the number of researchers in eastern German industry fell from 75,000 to roughly 15,000. Particularly pronounced were the reductions in the industrial core sectors of the GDR's industry. Electrical engineering lost 90.8 per cent of its research and development capacity; the chemical industry, 83.8 per cent; and the machine-building industry, 77.7 per cent (IWH 1992: 6-8).

This sort of short-term cost reduction pursued by the Treuhand was aimed at improving the micro-economic efficiency of individual plants. It was part and parcel of a strategy to isolate individual production plants by paralyzing economic and social linkages with the pre-existing production system. This strategy was expected to facilitate the privatization of the GDR economy by enhancing the attractiveness of the plants for Western investors. In mere quantitative terms, the Treuhand's approach seems to have proved right. By 1 June 1993 the Treuhand had privatized 85.5 per cent of its 12,952 firms. The investors who took over these firms committed

themselves to investing DM 148.9 billion in the following years and to providing 1,456,859 jobs.

REVIVING THE OLD NORTH-SOUTH DIVIDE? THE REGIONAL STRUCTURE OF JOB AND INVESTMENT COMMITMENTS

Within eastern Germany two regions in particular share in these job and investment commitments of Western investors (see Table 4.1). First, East Berlin and the surrounding federal state of Brandenburg seems to be the most attractive region for Western investors (if their commitments are weighted by the number of inhabitants of the regions). This premier ranking of the Berlin-Brandenburg region results mainly from two types of investment project. One is in the core area of East Berlin, which will constitute the new (old) centre of Berlin and has attracted huge investment in real-estate development. These projects include the reconstruction of luxury shopping areas and the erection of trade centres and office buildings, the latter of which initially have been extremely scarce in Berlin. The predominance of trade and services in the privatization of industry in East Berlin is also reflected in the extraordinary labour intensity of investment in terms of job commitments per privatization. The second type of project making Berlin-Brandenburg attractive to Western investors focuses on a variety of industries—food, beverages, and tobacco; construction; chemicals; and electrical engineering—which constitute the so-called *Speckgürtel* ('bacon belt') along the motorways around Berlin (Ministerium für Wirtschaft, Mittelstand und Technologie 1992; see Table 4.2). The greater Berlin area is one of the preferred locations for non-German investors, not least because of the nearby market of approximately 5 million inhabitants, the central location of Berlin within eastern Germany, and a relatively advanced traffic and communication infrastructure.

Besides the unique position of the central Berlin-Brandenburg region, investment activities in eastern Germany seem to duplicate the north-south divide of western Germany and, hence, to revive the traditional spatial pattern of industrial development in Germany. With a long tradition in localized small-firm networks, the southern federal state of Saxony is one of the leading regions in Germany's industrial take-off and represents the second centre of new economic activity in eastern Germany. Mirroring the industrial origins in Saxony, investment is concentrated in the machine-building and electrical engineering industries. However, the construction industry and the food, beverage, and tobacco industries are also strongly represented in Saxony. In contrast to the Berlin-Brandenburg region, Saxony is a place where non-German investors play a rather minor role. Only 6.2 per cent of the investment commitments have been made by non-German investors. This extraordinarily low share of foreign investment also

TABLE 4.1. *Investors' job and investment commitments in the federal states of eastern Germany*

	East Berlin	Brandenburg	Mecklenburg-West Pomerania	Saxony-Anhalt	Saxony	Thuringia	Eastern Germany
No. of inhabitants	1,284,535	2,611,816	1,945,447	2,992,032	4,841,613	2,653,797	16,259,240
Privatizations:							
No. of privatizations	853	2,017	1,586	1,926	3,575	2,320	12,360
Privatization rate (%) ^a	80.3	86.2	86.9	84.1	86.6	84.5	85.5
Proportion of management buy-outs in privatizations (%)	16.9	18.4	24.1	20.1	17.7	17.9	18.9
Job commitments:							
Total no.	246,567	284,818	126,550	183,534	415,731	192,514	1,456,859
Per 100 inhabitants	19.2	10.9	6.5	6.2	8.6	7.2	8.9
Per privatization	289.0	141.2	79.8	95.3	116.3	82.9	117.9
Percentage of foreign investors	10.1	15.1	6.1	9.7	6.2	7.2	9.1
Investment commitments							
Total (DM bn.)	24.3	31.5	11.6	20.4	44.0	12.9	148.9 ^b
Per 100 inhabitants (DM m.)	1.9	1.2	0.6	0.7	0.9	0.5	0.9
Per privatization (DM m.)	28.5	15.6	7.3	10.6	12.3	5.5	12.0
Percentage of foreign investors	8.6	15.2	12.1	20.1	6.1	22.4	12.1
Plant shut-downs							
Jobs affected							
Total	26,348	39,799	20,375	32,621	115,488	62,858	303,671
Per 100 inhabitants	2.0	1.2	1.0	1.1	2.4	2.4	1.8
Assumed percentage of jobs saved	24.3	38.8	36.7	27.6	22.8	26.8	26.8
Unemployment rate ^c	13.7	15.1	16.9	16.1	13.8	16.0	15.1

^a Proportion of privatized firms in the total number of firms handled by the Treuhandanstalt.

^b Incl. investment commitments of DM 4.2bn. (sale of agricultural acreage and non-productive company real estate) not attributed to the new federal states.

^c Data: as per end of May 1993.

Source: Calculations based on the Treuhandanstalt's monthly Information Bulletin; *IAB Report*, no. 12 (15 Feb. 1993) (Nuremberg: Institut für Arbeits- und Berufsforschung).

TABLE 4.2. *Regional structure of investment in selected industries (in percentages)*

	East Berlin	Brandenburg	Mecklenburg- West Pomerania	Saxony- Anhalt	Saxony	Thuringia	Total
Machines	5.5	5.5	3.6	23.6	56.4	5.5	100
Electrical engineering	16.7	1.7	8.3	18.3	31.7	23.3	100
Chemicals	13.6	13.6	—	40.9	27.3	4.5	100
Vehicles	8.7	8.7	13.0	—	26.1	43.5	100
Food, beverage, and tobacco	13.3	11.7	16.7	15.0	30.0	13.3	100
Construction	2.0	8.0	10.0	22.0	40.0	18.0	100

Note: Because of rounding, certain series of percentages may not sum to 100.

Source: IW (1991, no. 3, B-9).

reflects Saxony's strong industrial tradition. Soon after the unification, many firms in Saxony were taken over by western German firms that had previously run branch plants or that had even emerged from plants of this region's small-firm economies.

Similarly, investment in Thuringia mirrors the region's past strengths. However, whereas investment in Saxony is by and large a matter of 'German unification', 22.4 per cent of the investment in Thuringia has been committed by foreigners. The lion's share of this investment has been attracted by the automotive industry. Smaller investment projects have been launched in the tool and machine-building industries and the food, beverage, and tobacco industries. As in Saxony, privatization and investment in Thuringia have resulted in a relatively high number of plant shut-downs and lay-offs. In neither Saxony nor in Thuringia is the destructive dimension of this 'creative destruction' offset by the creative dimension. However, the overall balance of investment and shut-downs and, hence, the contribution of investment to regional structural change appears to be more favourable in Saxony.

Much as development in Thuringia is dominated by the automotive sector, investment in Saxony-Anhalt is largely determined by two closely interrelated industries that have dominated the area's economic development over the last forty years (IW 1991). Because only about 3 per cent of Germany's brown coal mining was located in eastern Germany before World War II, the government of the GDR resolutely developed this basic industry, making eastern Germany the most mining-intensive country in Europe (Häußermann 1992: 11). Consequently, the basic chemical industry, which processes coal, was also concentrated in Saxony-Anhalt. The resulting industrial monostructure caused not only economic but also massive ecological problems that initially discouraged Western corporations from investing after Germany was united. However, the extensive subsidies from

the Treuhand have facilitated a few large investment projects, such as a DM 6 billion undertaking that a French joint venture has entered upon in one of the chemical complexes of Saxony-Anhalt in order to gain access to the gas station network of the former GDR monopoly.

The situation in the most northern and geographically largest federal state, Mecklenburg-West Pomerania, seems even more dramatic than in Saxony-Anhalt. This region also demonstrates that resolute privatization is by no means enough to ensure investment and rapid structural change. Although privatization in Mecklenburg-West Pomerania has forged ahead rapidly, results have been poor. Investment as well as job commitments lie far below the eastern German average. Whereas, for example, the investment commitments per privatized firm have amounted to DM 28.5 million in East Berlin, the respective commitments in Mecklenburg-West Pomerania total a modest DM 7.3 million. This rather poor outcome of privatization reflects the traditional industrial structure of Mecklenburg-West Pomerania. Aside from the drastically reduced ship-building industry on the Baltic Sea, the economic development of Mecklenburg-West Pomerania is largely determined by agriculture and the tourist trade. The low levels of barriers to entry in both these industries also explain the extraordinarily high share of management buy-outs (24.1 per cent) in the total number of privatizations. However, this statistic should not be misinterpreted as a promising indication that a small-firm economy is emerging. It is rather an unequivocal sign that Western companies are only moderately interested in investing in this peripheral region.

HIGH EXPECTATIONS—LOW RISKS: MOTIVES FOR INVESTMENT AND MODES OF CORPORATE INTEGRATION IN THE INITIAL STAGE

To be sure, this roughly sketched map of investment in eastern Germany largely reflects the spatial structure of investment plans that were laid down in the initial phase of the transformation process. At that time, the Wall was not only conceived as a restriction of basic human rights but also as a major barrier to trade. In this economic perspective, the events of 1989 also promised to open access to capacious markets. Hence, it does not come as a surprise that access to the eastern German market was the single most important motive for western German and foreign investors to become involved in eastern Germany (see Table 4.3). This investment motive was, and still is, particularly important in the industries of food, beverages, and tobacco; wood-processing; earth and stone; and the consumer-oriented sectors of the chemical industry (DIW 1992: 478).

Access to the eastern German market has rather different implications for investors, depending on the country they come from. Whereas western

TABLE 4.3. *Motives for investing in eastern Germany*

Motive for investing	Percentage of firms citing the given motive	
	Western German	Foreign
Access to eastern German market	71	50
Scarcity of firm's capacities	32	8
Availability of plants and labour	10	21
Low cost of labour	10	19
Access to EC market	—	41

Source: DIW Wochenbericht, no. 24 (1991), 331, as at April 1991.

German investors initially expected simply to extend their production capacities and markets proportionally and to establish a bridgehead to Eastern European markets, French and British investors were mainly motivated by the prospects of improving their market positions (*Wirtschaftswoche* 1992a: 132). To Swiss and Austrian investors, eastern Germany appeared to be a promising opportunity for getting a foot in the door to the EC market. The ratio of job commitments relative to investment commitments indicates that (probably smaller) Swiss and Austrian firms in labour-intensive industries took advantage of entering the EC market via its eastern back door. By contrast, American and Canadian investors represented rather large corporations intent on improving their positions in the enlarged EC market and on securing access to Eastern European markets by taking over an eastern German firm (see Table 4.4).

The high priority placed on gaining access to the market, as opposed to attempting to benefit from cost differentials, is also reflected in the prevalent modes of corporate integration (see Table 4.5). Across all industries, the predominant form of corporate integration was the founding of new firms, but only 7.3 per cent of those newly founded firms are geared to production. In 78.7 per cent the founding of a new firm has implied the establishment of a branch plant with exclusively distributive or representative functions. The other forms of corporate integration that were important in the first stage of investment in eastern Germany also reflect a rather cautious approach that contrasts somewhat with the rhetoric of the pioneering role that risk-taking capitalists have. 'Co-operative agreements' in most cases include a sort of risk-minimizing outsourcing based on short-term wage contracts. Accounting for 37.2 per cent of all forms of corporate integration other than the founding of firms, this contemporary version of the putting-out system represents the preferred form in the manufacturing industries. And even in those cases in which Western corporations committed rather large, long-term investment, the high priority of rapid privatization allowed them to shift risks and costs of the initial stage of their projects

TABLE 4.4. *Foreign direct investment in eastern Germany*

	Investment commitments (DM m.)	Job commitments	No. of firms
France	4,800	21,039	1,182
Switzerland	1,101	17,477	447
Great Britain	1,692	16,439	782
United States	2,746	11,952	419
Austria	693	13,717	276
Netherlands	962	8,263	247
Italy	649	4,956	303
Canada	1,848	16,708	34
Denmark	544	3,158	331
Luxembourg	399	2,000	275
Others	2,602	16,518	306
TOTAL	18,036	132,227	4,602

Source: THA-Privatisierungsbericht, no. 5 (1993), 16, as at end of May 1993.

TABLE 4.5. *Mode of corporate integration in Eastern Germany (in percentages)*

	Manufacturing	Trade	Traffic and communications	Services	Total
Joint corporations	18.5	15.5	44.0	12.3	17.5
Founding of new firms	28.5	44.0	28.0	62.1	37.1
Independent subsidiaries	4.3	5.9	4.0	7.0	5.2
Branch plants	24.2	38.1	24.0	55.1	31.9
Productive	4.1	—	—	—	2.7
Distributive	13.5	23.9	4.0	29.2	17.5
Representative	6.6	14.3	20.0	25.9	11.7
Co-operative agreements	37.2	32.1	28.0	13.2	31.2
Shareholding	15.4	4.8	—	9.9	13.1
Others	0.4	3.6	—	2.4	1.0

Source: IW (1991, no. 3, B-6).

to the Treuhand. Most of these large investment projects—and 18.5 per cent of the total investment in the manufacturing industries—were based on the establishment of a 'joint corporation' of which the Western investors held 12.5 per cent of the shares. Although the Treuhand consequently held

87.5 per cent of the shares, a syndicate contract assured that the Western investor controlled the management of the joint corporation. Since the property relations within the joint corporation also determined the cost-sharing, the Treuhand had to cover the bulk of the costs of preparing production in the new plants of the Western investors. These costs included, above all, the costs of removing ecological damages and selecting and qualifying a work-force for the new plants. The Western investor did not take over the entire joint corporation, including all costs and risks, until this transition stage had been completed.

BIG DISILLUSIONS—SMALL PROFITS: WITHDRAWALS AND STRETCHING OF INVESTMENT IN THE SECOND STAGE

Although the risks and costs of this initial transition and investment stage lay largely with the Treuhand, economic developments in both Western and Eastern Europe increasingly challenged the foundations on which those investments had been built. First, the expectation for the eastern German as well as the Eastern European markets have been sorely disappointed. Western investors were caught in the collapse of the eastern German productive system, a demise that they had unintentionally accelerated. In paralysing pre-existing social and economic relations, they also destroyed the informal networks within and between the combines. Those networks had been essential in compensating for the chronic shortages of raw materials and spare parts and in developing *ad hoc* solutions to production breakdowns. Together with the introduction of the Deutschmark the destruction of these networks that 'got the jobs done' triggered the implosion of the old combine-based economy. Hence, capital-goods projects that aimed at supplying the GDR industry no longer had an economic base.

The expectations that Western investors had for the development of the Eastern European markets were also thwarted. After 1 January 1991, by which time the account system in foreign trade was based on convertible currency, trade with Eastern Europe collapsed. The volume of exports from eastern Germany plummeted from 28.9 billion in 1989 to less than one-quarter of that amount in 1992. Trade with the former Soviet Union, the former Czechoslovakia, and Poland declined by 70 to 80 per cent and vanished almost completely with Hungary, Romania, and Bulgaria (see Table 4.6). Although the share of eastern German exports to Eastern Europe was still at 58 per cent in 1992, its dramatic decline (down from 71 per cent in 1989) jeopardized the strategies of Western investors to establish bridgeheads to Eastern European markets (*Sozialpolitische Umschau* 1992).

The costs of labour in eastern Germany increased almost as fast as the expectations for Eastern markets faded (Table 4.7). Eastern Germany lost

TABLE 4.6. *Eastern German exports to Eastern European countries (DM m.)*

	1989	1992	1992 as percentage of 1989
CIS	16,576	5,543	33.4
Ex-CSFR	3,814	789	20.7
Poland	3,116	524	16.8
Hungary	2,597	179	6.9
Romania	1,428	77	5.4
Bulgaria	1,361	67	4.9

Source: German Federal Statistical Office; Institut der Deutschen Wirtschaft, Cologne.

TABLE 4.7. *Contractual wage level in eastern Germany as a percentage of western Germany, by industry*

Industry	Percentage	Adjustment agreements	
		Year	Percentage
Construction (E. Berlin)	100	1992	100
Retail	79	1993	85
Construction (other Länder)	77	—	—
Private insurance	75	1994	100
Private banking	71	1994	90
Iron and steel	70	1994	100
Printing	70	1995	100
Public sector	70	1993	80
Footwear	70	—	—
Energy and power utilities	68	1993	77
Metal and electricity	67	1994	100
Lignite and gas	61	—	—
Textiles	61	—	—
Chemicals	60	1993	68
Clothing	58	1993	69

Source: Data from the Collective Wage Agreement Archive of the German Federation of Trade Unions (Deutscher Gewerkschaftsbund), as at 30 June 1992.

its economic attractiveness for at least 19 per cent of the foreign investors and 10 per cent of the western German investors (see Table 4.3). Although considerable increases in eastern German labour costs had been foreseen, the gradual adjustment of eastern German wage levels to western ones was obviously out of step with the expectations of Western investors. The

disappointing development of Eastern European markets apparently jeopardized investment projects in Eastern Europe in general. None the less, the rapid increase in labour costs presumably did not call into question investment in Eastern Europe *per se*, just investment in eastern Germany. About one-third of the corporations in which high labour costs are regarded as a major obstacle for investing in eastern Germany have preferred locations in the Czech Republic, Hungary, or Poland because of their 'more attractive cost structures' (IHK and DIHT 1993: 59). Audi, for example, finally decided to establish its new engine plant in Hungary rather than Saxony-Anhalt, 'because the wages in Hungary amount to just 10 per cent of the wages in eastern Germany' (*Der Tagesspiegel* 1992: 23). To be sure, the attractiveness of these countries lies also in the opportunity for at least large investors to influence national trade policies in order to protect national markets from other foreign competitors. A case in point were the plans of Mercedes-Benz to take over the Czech truck manufacturers Avia and Liaz, which were subject to a subsequent raising of import tariffs and the introduction of import quotas for trucks (*Der Spiegel* 1992: 86).

More recently investment projects in eastern Germany have been challenged not only by the socio-economic contingencies in eastern Germany and Eastern Europe, but also by Western European recessionary tendencies that were aggravated in late 1993. This additional threat to investment in eastern Germany hit the western German investors especially hard. For more than 30 per cent of them, lack of their own capacities was a major motive for investment in eastern Germany (see Table 4.3). The recession, however, rendered a further expansion of capacities superfluous. To be sure, the crisis in western Germany did not result in an immediate interruption of investment activities and did not affect all eastern German sectors in the same way. Nevertheless, the recession in western Germany significantly slowed investment dynamics in the producing sector. Whereas western German corporations increased their investment in the producing sector by 73.4 per cent between 1991 and 1992, the growth-rate fell to 24.3 per cent in the subsequent year. Even more marked was the slow-down in investment dynamics in the manufacturing industries. After a boost of 87.5 per cent between 1991 and 1992, investment increased by only 10 per cent between 1992 and 1993 (IFO 1993: 3). In 1994 investment dynamics stagnated (see Table 4.8).

This stagnation of western German investment dynamics contrasted sharply with the Treuhand's statistics on investment commitments. According to those statistics, western German investors initially planned a further, considerable intensification of their investment activities in 1994. The obvious discrepancy between initial commitments and actual investment activities stemmed from the complete withdrawal of investors from eastern Germany and the stretching of large investment projects. Taken together, the withdrawal of investors and the stretching of investment projects re-

TABLE 4.8. Western German investment in eastern Germany (DM bn.)

	1991	1992	1993	1994
Total	25.95	41.76	48.65	49.46
Producing industries	12.31	21.54	27.69	27.69
of which manufacturing industries	7.69	15.38	16.15	13.85
Trade, traffic, and communication industries	10.77	16.15	16.92	17.69

Source: IFO Investorenrechnung Ost, as at Apr. 1993.

duced investment by approximately DM 5 billion in 1993 (IFO 1993: 3). Most pronounced were the reductions in the core industries of the German economy, the automotive and the machine-building industry.

A first disastrous and highly visible signal was the withdrawal of Mercedes-Benz, which had committed itself to invest DM 1 billion to build the 'most advanced truck assembly plant in Europe' and to create 4,000 jobs near Berlin (see Table 4.9). Mercedes-Benz set a precedent by breaking its commitments with the Treuhand in order to secure capacity utilization in the West instead of capacity expansion in the East. Soon after this shock over the 'fall of an industrial beacon' (*Frankfurter Rundschau* 1993: 9), Volkswagen announced it would extend the expansion of its new plant in Saxony over several years. Initially, Volkswagen had committed itself to invest approximately DM 4 billion in the construction of new plants in which 6,800 employees were to assemble 1,200 Golfs (type 3) daily from 1994 on. Given its heavy losses in 1992, however, Volkswagen had decided to postpone the completion of its initial plans to 1996-7 and to confine its investment, for the time being, to DM 1.7 billion. The company's ambitious production plans were reduced to 350 to 400 cars, to be assembled by 2,600 employees (*Süddeutsche Zeitung* 1993: 18).

These considerable reductions of the projects of major investors triggered set-backs in the supplier sector in its most volatile development phase. For example, more than sixty small firms had been founded or had moved close to the Mercedes-Benz site, 'most of which now find themselves in a serious crisis even before they could really could start business' (*Wirtschaftswoche* 1992b: 99). As regards Volkswagen's local supplier base, Rockwell-Golde, for example, a supplier of sliding roofs, indefinitely postponed its project to build a new plant near Volkswagen. These withdrawals are not confined to the automotive industry. In the steel industry, Krupp cancelled its investment of DM 1.1 billion (see Table 4.9), deciding to concentrate all its effort on consolidating its Western plants. In the metal-working and machine-building industries, firms such as FAG Kugelfischer and Heidelberger Druckmaschinen have been similarly affected by the

TABLE 4.9. *Selected withdrawals of Western investors in 1992 and 1993*

Corporation	Industry	Investment commitments (DM m.)	Job commitments
Mercedes-Benz AG	Vehicles	1,000	4,000
E. Holtzmann & Co. AG	Paper	800	800
Alcor Chemie AG	Chemicals	100	1,700
Krupp Stahl AG	Steel	1,100	2,800
McCain GmbH	Food	200	n.a.
Rockwell Golde GmbH	Vehicle parts	5	50
Allmetall BV	Metal	5	700
Pfersee Kolbermoor AG	Textiles	30	750

n.a. = not available.

Source: *Wirtschaftswoche* (1992b).

crisis of the Western economies and have scaled down their investment projects considerably.

Although these withdrawals and reductions of investment projects are significant on the whole and add to the exceedingly disappointing record of the 'upswing East', Western investment constitutes the basic element of the eastern German economy. The long-term development of the eastern German economy, however, will largely depend on the nature and intensity of the linkages between these Western investment projects on the one hand, and the regional economy and these investments on the other. The answer to the question of the 'regional embeddedness' of Western investment seems, at least at first glance, greatly determined by the general corporate strategy underlying investment in eastern Germany—the distinction between a multi-domestic, nationally responsive strategy and a globally integrated one (Quevit *et al.* 1992).

SHAPING THE FUTURE MAP OF EASTERN GERMANY: REGIONAL IMPACTS OF CURRENT CORPORATE STRATEGIES

The Multi-domestic Approach: Local Integration

So far, nationally responsive—or, closer to the point, regionally responsive—strategies have appeared to be less affected by the foregoing challenges to Western investment than globally integrated strategies and have prevented an even more severe set-back in production and employment than has already been experienced in eastern Germany. For technological and product-related reasons two sectors were more successful than others

of the eastern German economy in attracting investors and consolidating production. On the one hand, the eastern German construction industry attracted Western investors whose location decisions are largely influenced by high transport costs and the need for prompt delivery. In general, the vast public investment programmes dedicated to the improvement of the public infrastructure (DM 24 billion in 1992), the federal railways (DM 10 billion), and housing construction (DM 5 billion) was decisive for the take-over plans of Western investors (DIW 1992: 144).

Among the more important engagements of Western corporations in the construction industry of eastern Germany are the RMC Group (UK) and Lafarge Coppée (France), which plan to invest DM 470 million and DM 350 million, respectively, to modernize cement plants and establish networks of delivery plants for ready-made concrete (Morgan 1992: 4). In the early 1990s the Austrian Maculan Holding AG founded six largely independent regional subsidiaries and rose, behind the five leading western German corporations, to become the sixth largest construction enterprise in eastern Germany (*Wirtschaftswoche* 1993: 112). Because the plants of these corporations have to serve local markets, they enjoy a relatively high degree of local autonomy. At least they are equipped with basic managerial functions and sales and purchase departments. For technological reasons their regional forward as well as regional backward linkages are relatively strong, for the weight–price relation of the basic input materials of the construction industry does not allow for long transport distances. Some of the investors even acquired shares of firms that supplied their construction plants with raw materials such as gypsum and gravel. This strategy, not too far from the logic of the combine-based organization, was aimed at ensuring the survival of suppliers whose economic situation and perspectives as Treuhand firms were rather precarious. It may also explain why a rather large share of investment was dedicated to the earth and stone industry, especially in the first stages of the unification process. In 1991 western German corporations alone invested approximately DM 2 billion in this basic goods industry (IFO 1992a: 9).

A similar pattern of rather loose corporate integration and comparatively strong regional embeddedness characterizes investment projects in the food, beverage, and tobacco industries, which currently play a key role in eastern Germany. After investments of DM 1.8 billion in 1991 and of DM 3 billion in 1992, the investments (of western German corporations) amounted to 3.3 billion in 1993 (IFO 1993: 3). These investments are significant, for in the food, beverage, and tobacco industries, as in the earth and stone industry, the relation between investments in eastern Germany and in western Germany lies considerably above the average of the manufacturing industries as a whole. To be sure, the development of the food, beverage, and tobacco industries has to be seen in close connection with the strategies of the major retail chains. The breath-takingly quick and nearly

complete take-over of the eastern German retail and distribution sector by the major western German corporations Metro AG, Spar AG, Tengelmann Group, and REWE AG led to an equally breath-taking collapse in the eastern German food, beverage, and tobacco industries. In the second half of 1990, for example, production in the eastern Berlin food, beverage, and tobacco industries dropped by 71.3 per cent (IFO 1991: 43). Since the Western retail chains maintained relations with their Western suppliers, eastern German producers initially had no chance to get on to the order lists of the retail stores. This circumstance also reflected the sudden stigmatization of Eastern products by eastern German consumers, who preferred Western products regardless of quality and price. Just as abruptly, however, the attitudes of eastern Germans changed again. First, the escalation of the unemployment problem turned consumer preferences into a political issue. 'Buying East' became more and more a demonstration of the disillusion with the unfulfilled promises of Western capitalism. Second, eastern Germans rediscovered, after a short period of experimentation with Western products, the merits, or at least customary peculiarities, of eastern German products, particularly of regional fresh products and traditional GDR brands (IFO 1992b: 20).

The large Western investors in the food, beverage, and tobacco industries—Coca Cola (USA), which committed investments of DM 700 million, Unilever (UK, DM 100 million), Philip Morris (USA, DM 60 million), and EAC (Denmark, DM 40 million)—tried to adapt with a two-way strategy. First, they met the demand for popular Western products by acquiring additional production facilities in eastern Germany. In a few spectacular cases, these corporations decided to establish new green-field plants whose purpose, as so-called Euro plants, is to supply the EC market with a few European-wide brands (*Handelsblatt* 1991c: 19). Second, and partially responding to the limits of the Europeanization of brands and the changing preferences of eastern German consumers, they continued producing traditional GDR brands. A prominent victim of these limits of Europeanization and changing consumer preferences was the largest western German cigarette producer, Reemtsma, which spectacularly failed to penetrate the eastern German market with Western brands. By contrast, Philip Morris rather successfully pursued a strategy of what it called 'regionalization' by relaunching the most popular eastern German cigarette f6 with minimal modifications in the design and material of the cigarette box (*Handelsblatt* 1991b: 15). Imitating this strategy of regionalization, Reemtsma finally decided to relaunch the eastern German brands Cabinet and Juno, leaving their matchless taste untouched. In the food industry, too, popular eastern German brands are celebrating a spectacular come-back. A handful of eastern German products, such as Nordhäuser Korn, a rather tough-grain gin, was even promoted to the status of German market leader by its western German parent firm. In the largest Western retail chain Metro AG,

eastern German products accounted for 10 per cent of total turnover in eastern Germany in 1991. However, this share, as well as the number of eastern German products that are offered in the Western retail stores are expected to grow (*Handelsblatt* 1992: 11).

From a regional point of view, this two-way strategy has had important implications. As in the construction industry, the need to monitor the local markets calls for at least some local autonomy and marketing capacities of the branch plants. This circumstance implies the need for at least a minimum number of middle-management and qualified white-collar positions within rural labour markets, which suffer from extraordinarily high levels of unemployment and massive deskilling of the remaining labour force. Additionally, Western investors have been trying to benefit from inputs that, especially in the agricultural sector, are still cheaper in product areas where transport costs and the need for rapid delivery favour local suppliers. Indeed, the relatively high amount of local content in meat, grain, and vegetable production may prevent the complete collapse of eastern German agriculture. Obviously, however, even rather intense regional backward linkages of the food industry to the agricultural sector cannot stave off the massive loss of production capacities and skills in the industrial sector.

Globally Integrated Approaches: Modernizing the Past and Experimenting with the Future

In contrast to these regionally integrated strategies in the construction and the food, beverage, and tobacco industries, the predominant approaches in the automotive, metal-working, electrical engineering, chemical, textile, and clothing industries have been seriously challenged by the socio-economic developments of the early 1990s. The strategies of establishing bridgeheads to East European markets and the attempts to economize on wage differentials did not satisfy initial expectations. Furthermore, the 1993 recession in western Germany forced considerable revision of the optimistic plans simply to extend Western capacities to serve the enlarged German market. Western investors tried to cope with these unforeseen challenges to their eastern German engagement by pursuing strategies that resulted in an unprecedented coexistence of 'modernizing-the-past' and 'experimenting-with-the-future' approaches. More specifically, branch plants in which the Fordist logic of mass assembly is pushed to its organizational and technical limits now stand side by side with branch plants in which the new post-Fordist orthodoxy of lean production is being pioneered. Both approaches require that pre-existing formal and informal networks be largely paralysed. The resulting *tabula rasa* facilitates a smooth implementation of the organizational and technical pre-conditions of these approaches.

Beyond this fundamental similarity in the vigorous demolition of the old social web and cultural standards and aspirations, Western investors differ

in their attitude toward the *industrial* tradition of eastern Germany, the tradition of having a relatively well-qualified labour force. The modernizing-the-past approach aims at massive deskilling of the labour force in order to combine the benefits of imposed social backwardness *and* imposed economic backwardness. Unlike this classical approach to peripheries, the experimenting-with-the-future approach implies a paradoxical combination of social backwardness *and* industrial tradition, in other words, of social and cultural atomization *and* high qualification.

Modernizing the Past: Cathedrals in the Eastern German Deserts

The strategy of combining modern mass-production technology with rather cheap and narrowly qualified or unskilled labour that is placed under the technologically and organizationally most advanced means of corporate control seems just as important in the chemical, electrical engineering, metal-working, textile, and clothing industries. An example is the take-over of the Falkensee plant of the combine called Outer Wear Berlin, a change being executed by Helsa, a western German textile producer. As the disappointing development of the Eastern markets eroded the strategy to establish a bridgehead to Eastern Europe, the Western investor integrated its eastern German plant rather tightly into its European network of production plants. After the former facilities for production of outer wear had been closed down, they were modernized and streamlined for mass production of a rather simple textile component for outer wear. (Ironically, the textile components produced in Falkensee reflect the current mood in eastern Germany: shoulder-pads.) Whereas the production of these components for men's outer wear remains in the Western plants, the eastern German plant produces components exclusively for women's wear, which is much more contingent on seasonal and fashion cycles. Because the eastern German plant is restricted to a rather narrow production step and draws all its input materials from the Western plants, to which they are returned after processing, all the managerial functions have been dissolved in the eastern German plant. Since the transition, which was managed largely by Western managers, a foreman has been in charge of ensuring that the Eastern plant correctly meets the requests and orders from the Western headquarters, which are transmitted daily by Datex-p exchange.

Although real wages in eastern Germany are still lower than those in western Germany because of dissimilar social regulations (Bispinck 1991: 22), the strategy exemplified by Helsa revolves around persisting cost differentials that result from the further fragmentation of the production process. This means reaping the benefits of the technologically most advanced application of the Babbage principle, that is, to benefit from the deskilling and the concomitant wage-reducing effects of the further fragmentation of the production process. This further fragmentation also allows some investors to escape from the highly regulated institutional environ-

ment of their employers' association. The integrated production plants of the French Rhône-Poulenc group in western Germany, for example, are members of the employers' association of the chemical industry. The further fragmentation of the production process allowed Rhône-Poulenc to use eastern Germany as the site for a few simple processing procedures that were ascribed to the employers' association of the textile industry. Regardless of development in the wage differential between eastern and western Germany, this manoeuvre guarantees continuous cost savings of 15 to 20 per cent because of the different tariff wage levels in the chemical and textile industries.

The regional impacts of the eastern German plants that are integrated into the Western corporate hierarchy basically according to the suggestions of Babbage (1835/1971) are almost negligible. They probably remain cathedrals in the desert. Because eastern German plants are vertically integrated into the production chain of their Western corporations, they create no regional supply opportunities and thus reduce the potential for establishing firms in the region. Moreover, regional linkages, particularly backward linkages, are the most important channel through which technological and organizational change is transmitted. In the Cottbus plant of ABB, for example, approximately 80 per cent of the inputs are supplied by Western plants of the corporation. It is exclusively in the area of construction and maintenance services that ABB's eastern German electrical engineering plant draws material and services from local suppliers. Undoubtedly, the eastern plants of ABB, Rhône-Poulenc, and Helsa employ the most advanced production technologies and stringent quality control systems. However, without business linkages that favour some sort of transfer or demonstration effects, regional firms will hardly be stimulated or encouraged to raise their technological level and improve their organization (Dicken 1990). Moreover, the truncated functional repertoire of the cathedrals in the desert, that is, the lack of decision-making functions, not only fails to provide 'seed-beds' for entrepreneurs but also hinders the development of a significant regional middle class and the culture and society associated with this strata (Massey 1983: 86).

Experimenting with the Future: Eastern Pioneers of Lean Production?

Whereas these cathedrals in the desert seem to be simply an eastern German version of the classical branch-plant syndrome in peripheral regions, the attempts to implement lean production aim at a more subtle combination of the benefits of imposed social backwardness and economic development. Although the complete withdrawal of Mercedes-Benz and the considerable down-scaling of Volkswagen's investment plans reduce the relative importance of this approach, the large automobile manufacturers play a pioneering role in experimentation with this new production concept.

These corporations quickly abandoned their initial intention to continue

at least a small share of the production of GDR passenger cars for the Eastern European market, for the Treuhand finally refused to cover the difference between production costs and sales price. The annual subsidies for the production of the Wartburg alone would have amounted to approximately DM 100 million (*Frankfurter Rundschau* 1991: 11). Initially, Volkswagen also intended to shift part of the assembly of its smallest car, the Polo, from its Spanish plant in Pamplona to the eastern German plant. However, as it became ever clearer that the rise of eastern German wage levels would soon make the assembly of small cars in Spain more profitable again, Volkswagen decided to develop its eastern German branch into a major assembly plant for its compact car, the Golf. With the collapse of the market for Eastern products and the prospect of diminishing wage differentials between eastern and western Germany, both Volkswagen and GM proclaimed their eastern German plants 'future-oriented models' for the organization of automobile production (Heidenreich 1992: 350).

Even more pronounced than Volkswagen, GM, largely inspired by the crusade-like anti-Japanese campaigns of its American headquarters, confesses to the topical management fetish of lean production. Although the rhetoric varies from corporation to corporation (Mickler and Walker 1992: 30), they all seem to adhere to the key elements of Toyota's corporate organization, a model that obviously should be beaten with its own weapons. That arsenal includes decentralization of competencies and responsibilities; the introduction of market elements within the corporate organization; reduction of the ratio of in-house production to the generalization of just-in-time supplier networks; the integration of production, maintenance, and quality control; and all the other notoriously repeated new dogmas of automotive production (Womack *et al.* 1990).

For Western investors, eastern Germany appears as an almost perfect location for implementing this new 'one best way'. First, the vague prospect of getting a job in a prestigious Western corporation helps paralyse pre-existing social and economic relations and helps demolish the old economic and cultural standards and aspirations regarding such aspects as job security, frequency of changes in work organization, and work intensity. Western managers revel in the opportunities to experiment, opportunities opened up by what one has called the 'salutary culture shock' to which eastern Germans have been exposed. This salutary culture shock allows Western managers to introduce forms of work organization that, under the conditions of the highly institutionalized system of industrial relations and the 'saturated mentality' in western Germany, would otherwise be much more troublesome to implement. This, in the perspective of Western investors, beneficial impact of the social *tabula rasa*, however, has not to be dearly paid for with economic backwardness in terms of qualifications and the wider infrastructure. Instead, establishing a joint corporation would make it possible to create hand-picked 'olympic teams' of highly skilled

workers (*Die Zeit* 1992) and a tailor-made transport and communicational infrastructure—at the Treuhand's expense.

The regional impacts of these strategies are rather ambivalent. First, the implementation of new organizational and managerial practices à la Toyota implies decentralized managerial competence at the operative level. The GM engine plant, for example, will be managed decentrally as a profit centre. However, all these plants will be integrated within the European corporate networks, with both their headquarters and the central developmental departments being located outside eastern Germany (Mickler and Walker 1992: 42). Second, a key element of lean production is the reduction of the ratio of in-house production. Volkswagen, for example, intends to keep in-house production to between 25 and 30 per cent in its Saxony plant as compared to 43 per cent in its Western plant (Wolfsburg) (*Handelsblatt* 1991a: 13). In order to encourage the development of a competitive regional supplier infrastructure and to guarantee itself quality standards, Volkswagen has also organized 'supplier conferences' to bring together pairs of eastern and western German producers of the same component. These conferences have resulted in approximately forty takeovers and licence agreements that have been approved by Volkswagen. The respective firms can act as suppliers when assembly of the Golf commences (*Industriemagazin* 1991: 37). Although some of these agreements have been jeopardized by the crisis at Volkswagen, this strategy will allow the costs of monitoring and upgrading potential Eastern suppliers to be shifted to the company's Western suppliers. Most probably, the Eastern branches of the Western suppliers will be integrated as second-tier suppliers within the supply pyramid controlled by large Western first-tier suppliers (Doleschal 1991: 49). In any case, the Eastern branch plants of Western suppliers are not equipped with their own research and development facilities. At best, they are provided with small engineering departments for customizing their products and developing special tools for the production process (Lungwitz and Kreißig 1992: 5). In the final analysis, this experimenting-with-the-future approach most probably leads to tightly integrated production complexes that resemble the transplants of Japanese automobile producers in the United States. The extraordinary productivity and quality of these just-in-time integrated networks must be paid for by an equally extraordinary dependence on the destiny of a single corporation.

THE FUTURE OF INSTANT CAPITALISM: EFFICIENCY AT THE COST OF ADAPTABILITY?

So far, the brief history of Western investment in eastern Germany is a history of attempts to cope with unforeseen and rapidly changing circumstances of the transformation process. Almost as soon as expectations for

growing markets in the East faded, labour costs rose. On top of that, the 1993 recession in core sectors of the western German economy triggered a considerable withdrawal and temporal stretching of investment projects.

The coping strategies of Western investors resulted in three different patterns of corporate integration and regional embeddedness of their Eastern branch plants. First, regionally responsive strategies in the food, beverage, and tobacco industries and the construction industry, which, by definition, are less vulnerable to external contingencies, favour loose forms of corporate integration combined with regional embeddedness. Because plants in these industries must monitor and serve regional markets, they enjoy at least a minimum degree of local managerial autonomy; for product-related reasons they establish not only regional forward but also regional backward linkages. In a sense, these industries, which at present are among the major investors in eastern Germany, constitute a comparatively stable element in their regional host economies. However, this stability is associated with a rather low degree of organizational and technological dynamism, particularly in the construction industry, and its contribution to the modernization of the industrial structure of the eastern German regional economies is severely limited. The demand for low-qualified labour and for construction materials can neither compensate for the massive loss of industrial skills and industrial production capacities nor stimulate the development of advanced service and manufacturing industries as a core of crystallization.

Second, globally integrated strategies, which are of particular importance in the automotive, electrical engineering, chemical, and textile industries, are resulting in an unprecedented coexistence of modernizing-the-past and experimenting-with-the-future approaches. Branch plants in which the Fordist logic of mass assembly is pushed to its organizational and technical limits are being established side by side with branch plants in which the new post-Fordist orthodoxy of lean production is being pioneered. The modernizing-the-past approach culminates in the construction of regionally isolated cathedrals in the desert, whereas the experimenting-with-the-future approach most probably leads to tightly integrated local production complexes.

The 'proper' implementation of both these approaches not only presupposes a far-reaching paralysis of pre-existing formal economic relations and informal networks, it also inevitably results in a depreciation of the chaos qualifications (Marz 1992) and network capital (Sik 1994) that have accrued in these compensatory social and economic ties. Undoubtedly, these approaches, which aim at benefiting from the so-called salutary culture shock, will, in the final analysis, yield high levels of micro-economic efficiency. In particular, the experiments with a 'lean future' are expected to end up with productivity levels that appeared unattainable in the highly regulated corporatist institutional context and the 'saturated mentality' of western Germany.

However, the price of these gains in micro-economic efficiency probably will have to be a rather limited adaptability of the eastern German economy. First, although the concept of lean production was initially confined to a blueprint for efficient automobile production, it has already been translated into a universally valid catechism that inexorably calls for all sorts of 'organizational slack' (Cyert and March 1963) to be eradicated. Adherence to this canon of the new orthodoxy typically reduces all those 'redundant resources', such as research and development, whose future returns cannot easily be calculated but that are essential for the long-term adaptability of firms. This stubborn reduction of industrial reorganization to cost-cutting measures is currently compounded by the proposals of the federal government to ensure the competitiveness of Germany as a production site.

Second, the long-term adaptability of the eastern German region probably might be restricted not only by the low adaptability of individual firms but also by the nature and intensity of linkages between them. Admittedly, Western investment has led to an increasing diversity of organizational forms in which specific bundles of routines are embedded (Stark 1992, 1993). However, this increase in organizational diversity *per se* does not necessarily enlarge the repertoire of organized solutions to problems of collective action. In an evolutionary perspective, organizational diversity engenders new organizational solutions to new problems only when those different forms of organization are linked and when they then exchange resources and information. In a sense, this exchange between different forms of organization allows for a blurring of boundaries and, hence, provides for a larger 'genetic pool' for the evolution of new organizational mutations that might be more appropriate for coping with new challenges (Grabher 1994).

The current fragmentation of the eastern German economy, however, does not seem very conducive to a blurring of boundaries between different forms of organization. On the contrary, the crisis in western Germany has probably led to a tighter integration of the Eastern branch plants. It might thus even have aggravated the fragmentation of the eastern German economy. Although organizational diversity has increased, its potential is 'frozen' in dissimilar, regionally isolated ways of organizing production. This fragmentation at least partially mirrors the deregionalized production pattern of the old economy based on combines.

NOTE

This chapter is based on approximately seventy interviews with managers and union representatives in the chemical, food, drink and tobacco, metal, textile, and clothing

industries in the eastern German federal state of Brandenburg. These interviews are part of the research project 'Decomposition and Privatization of Combines and Regional Development in Eastern Germany' which the author conducted at the Wissenschaftszentrum Berlin für Sozialforschung. The author is grateful to colleagues in working groups 1 and 2 of the European Science Foundation RURE for stimulating discussions of earlier versions of this chapter, which was originally published in the *Netherlands Geographical Studies*, no. 181 (1994), 109–31.

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