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## Western enterprises on eastern markets: The German perspective

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# Kieler Arbeitspapiere

# Kiel Working Papers

Kiel Working Paper No. 607

**WESTERN ENTERPRISES ON EASTERN MARKETS:  
THE GERMAN PERSPECTIVE**

by  
Klaus-Dieter Schmidt and Petra Naujoks

December 1993

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### **Abstract**

The paper offers a vision of the future of cross-border activities between Germany and the Central and East European reform countries. It provides a comprehensive theoretical framework and it presents some stylized facts. It focuses on three prominent areas: trade in goods and services, off-shore processing and foreign direct investment. Although trade in goods and services is still the dominant form of cross-border activities, other forms make up mightily. Industry and country variables strongly influence the type of activities. Trade and off-shore processing are predominantly derived from comparative advantages (especially cheap labour) in Heckscher-Ohlin industries. Foreign direct investment, however, can be found mainly in (mobile) Schumpeter industries.

## I Introduction<sup>1</sup>

Since the late 1980s the economic map of Europe has been changing dramatically. The former centrally planned economies (CEPs) are undergoing a radical shift towards market-based economies and, hence, the political boundaries between west and east are lowering as barriers to cross-border trade and factor movements. With trade and investment barriers falling, new opportunities for the international business could emerge.

The paper provides a theoretical background and presents some empirical results with respect to the emerging east-west economic relationships from the German perspective. Germany is now one of the few places in the world where a rich country shares a long and open borderline with two poor neighbour countries, with Poland and the Czech Republic. For decades the Mexican-American frontier was the outstanding example, but the collapse of communism opened another. Sooner or later a distinctive border economy should spring up there - as alongside the Rio Grande - creating a European version of the Maquiladoras.

The first section of the paper deals with different forms of international involvements of enterprises. It uses a taxonomy (developed by Norman and Dunning) which considers each of these forms as a stage of an evolutionary process. It argues that an economy's configuration of international activities is a function of the development stage it actually passes.

The second section takes a look on the empirical validity of the hypotheses. It provides some facts and figures concerning the involvement of German enterprises in CEPs in form of trade, off-shore processing and direct investment.

## II Theoretical Framework

Theories of international involvement have moved a long way from the orthodox models of comparative advantage to accommodating recent developments. In the classical Heckscher-Ohlin-Samulson model (HOS), e.g., trade takes place only in form of goods not in factors; all factors of production are treated as immobile. For quite some time, this paradigm was dominant. It was used to explain how and why manufacturing industries are distributed around the globe and which goods and services are traded between countries. In recent years, however, the orthodox paradigm has been more and more replaced by models which direct attention to increased factor mobility, technological transfer, information flow and globalisation of com-

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<sup>1</sup> An earlier version of this paper was presented at the ACE-Workshop "Corporate Restructuring, Trade Performance and Economic Policy in the Transition to a Market Economy" held from 30 October till 1 November 1993 in Budapest. The authors wish to thank their colleague Birgit Sander for helpful comments.

petition. These "new trade theory models" also integrate concepts of market structures and industrial organisation such as scale economies, transaction costs, product differentiation, absolute capital requirements, technological race or competition on the learning curve (Harris, 1992).

When attempting to construct a general theory of international involvement it makes a fundamental difference if the factors of production are assumed to be mobile or immobile: trade in factors of production - labour, capital or technology - causes a substitution of trade in goods and services by factor movements. And it also makes a fundamental difference if the concept of perfect competition is employed or the concept of market imperfections.

## 1 Forms of Foreign Involvement

A basic conclusion from the "new trade theory" is that an enterprise looking for cross-border activities has the choice: it can choose between trade in goods and services and, alternatively, trade in factors of production. It can also opt for an intermediate form, namely to go for contracting. The choice is determined by country and industry characteristics, above all by

- endowment with mobile and immobile factors,
- degree of horizontal and vertical integration of production,
- level of transformation and information costs,
- market structure (oligopolistic competition, barriers of entry, government intervention).

From another perspective: the enterprise can choose between domestic and foreign production or, following Williamson's (1975) path breaking terminology, between production in (external) markets and in (internal) hierarchies.

There is no simple method for judging whether it is more efficient to produce at home and supply the foreign markets by exporting goods and services or to produce abroad. The decision process is too complex to be amenable to simplistic theorising. However, a taxonomy, developed by Norman and Dunning (1984) may help to clarify some points (Table 1). The taxonomy combines the elements of traditional trade theory with those of the modern industrial organisation or market structure approach.



Table 1 - Taxonomy of Forms of International Economic Involvement

Forms and Mechanisms of Co-ordination	Type of Goods and Factor Flows	
	Inter-Industry	Intra-Industry
External markets - inter-firm - price mechanism	Commodity trade	Reciprocal trade of consumer and intermediate goods
	Comparative advantages according to factor endowments	Factor endowment, specialization, scale economies, risk diversification, oligopolistic markets
Contractual arrangements (licensing, subcontracting) - inter-firm - negotiations	Intangible assets	Reciprocal flows of intermediate goods and intangible assets
	Imperfections in or failure of external markets	Imperfections in or failure of external markets
Internal markets - intra-firm - hierarchies	Investment capital (FDI) Commodity trade	Reciprocal flows of investment capital, intermediate and consumer goods
	Ownership, locational and internalization (OLI) advantages	OLI advantages, degree of multinationality, multinational oligopoly

Source: Norman, Dunning (1984).

According to this taxonomy an enterprise will use purely external markets in a situation in which

- trade is restricted to commodities or to some variants of consumption and intermediate goods and
- comparative advantages by factor endowment, product specialisation and economies of scale exist.

This situation mainly describes the well-known world of Heckscher-Ohlin-Samulson-, Linder-, Grubel/Lloyd- and Krugmann-theories. The opposite extreme in which enterprises exclusively use internal markets is described in the theories explaining foreign direct investment. From the perspective of trade theory foreign direct investment owes its origin to the existence of market imperfections - when (external) markets are difficult to organize, monitor and control or when they do not exist at all (McManus, 1972; Buckley, Casson, 1976). In these cases transactions on external market cause high costs. Enterprises which are interested in international activities can economize on transaction costs by internalizing the respective transactions, namely by co-ordinating them by means of their own, firm internal hierarchies rather than to rely on co-ordination by international, i.e. external markets which are ruled by

world market prices. Thus, enterprises which operate across national boundaries are seen to replace external market transactions with transactions co-ordinated by their internal hierarchies whenever the cost of these internal transactions is less than the cost of external actions (Dunning, 1977). Enterprises - or hierarchies - then are understood as substitutes for external markets.

A mixture of external and internal markets are contract markets. They are used when some market failures or imperfections exist which can be exploited by contractual arrangements without the resource commitment which would be necessary in order to establish ownership control. Typical forms of contracting are licensing or off-shore production.

#### *a) External Markets*

By far the most important form of cross-border activities is trade in goods and services. The option for trade (or using external markets) is rational when markets are nearly perfect (low transport costs and no other barriers of trade) and when gains by realizing economies of scale by plant specialisation can be expected. The first variant, inter-industry trade, mainly occurs between countries on different stages of development, the second variant, intra-industry trade, mainly occurs between countries on a similar stage.

The phenomenon of trade in goods and services is sufficiently explained in the literature and, therefore, needs no further comment. Emphasis should be laid, however, on intra-firm trade which reaches an important share of developed countries' exports and imports. This is not easily explained by the models of intra-industry trade which are mainly based on product differentiation at the final consumer goods level (Harris, 1992). Intra-firm trade is more compatible with models of industrial organisation such as vertical integration of production at the intermediate goods level. In the Norman-Dunning taxonomy intra-firm trade is a transaction replacing internal by external markets. It is a complement to FDI, not a substitute.

#### *b) Internal Markets*

The phenomenon of foreign direct investment (FDI) is strongly related to market imperfections: if markets were perfect, all international economic activity would occur as trade in goods and services.

One of the reasons for which markets are imperfect is that operations on them are not effected costlessly, as traditional trade theory assumes. Enterprises have to incur

- the cost of gathering information of promising business opportunities and potential business partners,

- the cost of negotiating the terms on which the business will be based upon and
- the cost of enforcing the once negotiated contracts, i.e. the cost of monitoring and control (Sander, Schmidt, 1993).

The transaction cost argument has been integrated into a broader approach which considers FDI not only as a means to reduce transaction costs but also to explore advantages which allow to compensate - or even to overcompensate - for the additional costs of operating abroad. Dunning (1977) has identified the following three conditions for foreign direct investment to take place:

- An enterprise must have some specific, i.e. ownership advantages in operating in foreign markets that allow it to compete in those markets with other and in particular with indigenous enterprises.
- An enterprise must perceive some attraction of a foreign location compared to its domestic production base in the manufacturing of all or of parts of its products.
- An enterprise must believe that these advantages can be best exploited internally, i.e. by means of ownership contract, rather than by means of non-equity arrangements, e.g. licensing agreements or management contracts.

Ownership advantages are to be conceived as specific competitive advantages an enterprise has vis-à-vis its foreign competitors. Such advantages may originate from intangible assets such as superior knowledge in terms of production technologies, in terms of management know-how or in terms of marketing skills as well as from brand names or access to cheap funds. If ownership advantages are large enough to overcompensate for the additional cost of operating in a foreign market, then firms may feel invited to become internationally active - either by trade, by licensing or by FDI. They will opt for FDI only if - beyond ownership advantages - they can identify locational advantages of a potential host country both against other potential host countries and against their home country.

Locational advantages may originate firstly from different relative factor endowments on which the models of traditional trade theories are based. This refers mainly to the HOS-model, the product-cycle model and the models explaining intra-industry trade. Secondly, apart from favourable factor endowments, locational advantages may originate from

- a country's economic system and legal framework which predetermines the degree of political and economic stability as well as the structure of incentives and constraints which economic agents are facing,

- a country's trade regime (its "openness") which is an important determinant of sales perspectives,
- a country's infrastructure and the agglomerational advantages it offers.

Internalization advantages may finally originate from economizing transaction costs, especially with respect to the cost of internationally transferring and using intangible assets. The international market for property rights is beset with imperfections: international licensing is often insufficient such that the costs of enforcing property rights to intangible goods are prohibitively high. Mostly this is the case for non-standardized production technologies, for advanced technological knowledge, for management know-how and for other skills to which property rights are not codified but incorporated in an enterprise's employees. Intangible assets to which property rights cannot be enforced have public-good properties, that is, once they are produced nobody, not even non-payers, can be excluded from consumption. Therefore, production costs cannot entirely be reimbursed on external markets and the market mechanism fails to set prices efficiently. This market failure translates into high transaction costs. Either such goods or assets are not supplied by private firms or firms will use co-ordination mechanisms which are internal to their organization. By this they achieve what the market fails to do, namely to exclude non-payers. Besides enforcing and protecting property rights, an additional incentive to undertake FDI results from the fact that intangible assets are often worth more when applied to a larger scale of operations. FDI then serves to enlarge the national production base by foreign ones. Taken together, FDI motivated by the possession of intangible assets can be expected to vary both by enterprise size and by industries depending on their relative intensity of research and development.

Initially it has been stated that the existence of each factor, ownership, locational and internalization advantages is a necessary condition and that the simultaneous existence of an advantage in each of these categories is a sufficient condition for FDI to occur (OLI-paradigm, Dunning, 1977). This view has been modified as it can be shown that locational advantages of a potential host country can be a both necessary and sufficient condition (Stehn, 1992): FDI may be undertaken irrespective of and even without firm-specific advantages on part of the foreign investor if locational advantages of a potential host country are large enough to (over)compensate for only small or even lacking firm-specific advantages. This argument has important implications for economic policy towards FDI as within the OLI-paradigm the category of locational attractiveness is the variable which is the most perceptible to economic policy. A country's government which intends to promote economic growth (as in developing countries) or growth and transformation alike (as in the Central and East European countries) here disposes of an important lever to promote its goals. Large scale investment support granted not only to foreign but to all investors in eastern Germany is a case where economic

policy even extends the above mentioned sources of locational advantages (Sander, Schmidt, 1993).

### c) *Contracting*

Contract markets are a form of international involvement which cannot be easily explained by existing theories. On the one hand, there is a fundamental assumption of the "new trade theory" that external markets are more or less imperfect. Consequently, there exist ownership advantages which should be a case for internalizing the production. On the other hand, an enterprise may be afraid of incurring the risk of an equity foreign involvement. In particular this may be the case when the economic environment of the host country looks unfavourable and a direct capital investment appears too risky. Also scarce management capacities may limit the possibilities for an engagement abroad. Some types of contractual arrangements may be an alternative way both for external and internal transactions.

Contractual or subcontractual arrangements are likely to occur when the "assets", which should be transferred, can be put into a codified form. A widespread type of such an arrangement is licensing. Such an agreement has some advantages for the licensor: it guarantees an adequate rent, admits to control the quality of goods produced by the licensee and minimizes the risks. Licensing is widely spread, e.g. in the chemical and pharmaceutical industries or in the food processing and beverage industries.

Another type of contracting is off-shore processing. Enterprises using off-shore processing in order to move different steps or parts of the production process into low-wage countries - without realizing full ownership advantages. The intention is a "cross-subsidisation" of high-cost domestic production. The typical case for international off-shore processing is the clothing industry (Spinanger, 1992).

Subcontracting, also international subcontracting, has been in use for a long time. In recent years, however, it has been considerably extended. Subcontracting is strongly interwoven with significant organisational innovations such as lean production or just-in-time production. The modern automobile industry can be understood as a pyramid of subcontractors with an assembler at the top. The leading manufacturers in the world source more than 70 percent of their components externally.

## **2 Trajectories of Development**

The Norman-Dunning taxonomy of international economic involvement used in this paper is based on the assumption that economic growth and development are an evolutionary process

during which an economy passes the different stages step by step. Each of these stages is characterized by a specific configuration of each national and international economic activities. In the early stages, an economy's international involvement mainly rests upon inter-industry trade which then is followed by inter-industry production, i.e. FDI as inter-industry flow of investment capital. In later stages, intra-industry trade (reciprocal trade) and then intra-industry production (reciprocal FDI) are gaining importance. They are mainly based upon firm-specific advantages which result from reduced transaction costs.

The question arises which forms of involvement western enterprises should prefer in CEPs. In order to give answers we have to link the taxonomy with the country scenarios describing the present stage and the expected trajectories of development. The answers will be quite different for countries like Hungary, Poland and the Czech Republic on the one hand, and countries like Romania, Bulgaria or Albania on the other hand - because of their different perspectives. It is no surprise that German enterprises clearly favour Hungary and the former Czechoslovakia as locations for foreign direct investment (Schmidt, 1993).

It is not easy to assess where the CEPs really stand and into which direction they are moving. Two alternative scenarios are frequently discussed: the catching-up scenario and the reconstruction scenario (Dunning, 1991). Each of these scenarios describes different prospects for western enterprises involved in eastern countries.

- In the catching-up scenario the CEPs are considered as developing countries lagging far behind the industrialized countries of the western world. It is argued that their overall economic performance and especially their position on international markets is not better than that of countries as Brazil, Mexico, Thailand, Malaysia or Indonesia. Such a scenario suggests that the CEPs would have their comparative advantages mainly in labour-intensive industries. Consequently, they should follow the development path which the first generation of developing countries in Southeast Asia has successfully stepped along, especially Korea, Taiwan, Hongkong and Singapore. However, the main assumptions of this scenario do not seem to be appropriate in each and every case. Different from developing countries, Hungary, the former Czechoslovakia or Poland have reached a high level of industrialization and their labour force is excellently educated. Their potential performance is obviously much better than their actual one.
- The alternative reconstruction scenario considers the CEPs as developed countries whose capital stock has for the most parts become obsolete. Their present situation can be compared with those in post-war western Europe, especially with the situation in the war-shattered Germany. In this scenario it seems possible to restructure most of the eastern industries so that they fit to the resource potential, particularly to qualified labour. In this scenario the CEPs would be a candidate more for intra-industry cross-border activities

and less for inter-industry ones. This scenario, however, neglects the enormous deficits in the institutional infrastructure compared to that of a western market economy. Building up new institutions needs more time than rebuilding an old capital stock. The process of institution building strongly affects the performance in the first phase of the transition to a market economy. Without the critical mass of institutions it is not possible to establish a workable market system. Insofar, the post-war reconstruction model must also fail (Winiński, 1992).

A realistic scenario should combine resource availability (factor endowment, industrial tradition, technological, organisational and management capacities) on the one hand with institutional necessities for economic progress on the other hand. In this respect, however, most of the CEPs differ widely. It is, therefore, likely that they will take different development paths. That could mean that the Czech Republic, e.g., will follow closely the reconstruction model because it has an old industrial tradition and is one of the leaders in the reform process. In contrast, a country like Albania will follow the catching-up model.

### **3 Links Between Development and Involvement**

It is reasonable to expect that the forms of foreign involvement of western enterprises on eastern markets will be influenced by the trajectories of development followed by the CEPs. A few of them will be preferred candidates for intra-industry activities, the most, however, for inter-industry engagements. Some will be able to attract on a large scale foreign capital in form of direct investment, others will fail in this respect and will content themselves with lower collaborative agreements as licensing or off-shore processing. It would be interesting to compare, how enterprises of different countries and different industries will take their opportunities in CEPs in a different way.

## **III Stylized Facts**

Unfortunately, there is no consistent data base available which would allow for a systematic empirical testing of the propositions developed above. In particular, non-trade cross-border activities of enterprises are only poorly documented. In the following section some rough facts and figures are presented which may give evidence for the hypotheses.

### **1 Exports and Imports**

As variables for external, i.e. international, market transactions, cross-border trade flows are used. German statistics of foreign trade provide data for exports and imports by countries and separated by commodity groups; however, in SITC-classification not separated for western

and eastern Germany. There are two additional crucial points with respect to trade flows. The first is that they include intra-firm transactions which are, in fact, internal transactions: the deliveries of Volkswagen motors from its plants in Wolfsburg to Mladá Boleslav, where it holds a joint venture with Skoda, e.g., are intra-firm trade, not international trade. The second is that they include goods for and from off-shore processing which is a form of contracting.

Table 2 - Western Germany's Trade with Central and East European Reform Countries 1989-1992

	Imports								
	Mill. DM				Percentage change 1992/1989	Share in Total Western German Imports in p.c.			
	1989	1990	1991	1992		1989	1990	1991	1992
Total Imports from CEPs	19 243	21 788	26 442	30 391	+58	3.8	4.0	4.2	4.8
Former Soviet Union	8 556	9 117	9 899	10 051	+17	1.7	1.7	1.6	1.6
Poland	3 580	5 164	6 473	7 443	+108	0.7	0.9	1.0	1.2
Czechoslovakia	2 493	2 703	4 384	6 627	+166	0.5	0.5	0.7	1.1
Hungary	2 687	3 254	4 020	4 453	+66	0.5	0.6	0.6	0.7
Romania	1 539	1 116	1 132	1 226	-20	0.3	0.2	0.2	0.2
Bulgaria	327	396	499	508	+55	0.1	0.1	0.1	0.1
Albania	61	38	36	24	-61	0.0	0.0	0.0	0.0
	Exports								
	Mill. DM				Percentage change 1992/1989	Share in Total Western German Exports in p.c.			
	1989	1990	1991	1992		1989	1990	1991	1992
Total Exports to CEPs	24 515	23 458	26 012	30 127	+23	3.8	3.6	4.0	4.6
Former Soviet Union	11 526	10 361	8 635	8 360	-27	1.8	1.6	1.3	1.3
Poland	4 470	4 691	7 479	7 709	+72	0.7	0.7	1.2	1.2
Czechoslovakia	2 734	3 080	4 319	7 451	+173	0.4	0.5	0.7	1.1
Hungary	3 651	3 365	3 844	4 508	+23	0.6	0.5	0.6	0.7
Romania	584	1 114	996	1 249	+114	0.1	0.2	0.2	0.2
Bulgaria	1 471	788	663	806	-45	0.2	0.1	0.1	0.1
Albania	78	59	76	43	-45	0.0	0.0	0.0	0.0

Source: Statistisches Bundesamt.

As Table 2 shows western Germany's trade with CEPs has a remarkable upward trend.<sup>2</sup> Especially from 1991 to 1992 the leap is striking which is particularly to be explained by the high growth rates of trade with Poland, the former Czechoslovakia and partly Hungary. This phe-

<sup>2</sup> In recent years trade with CEPs has developed in an opposite direction in the two parts of the reunited Germany: in eastern Germany it has nearly broken down. Consequently, trade flows should be analysed separately.



nomenon could be interpreted as a clear sign for the ongoing transformation process in these countries and the opening up towards western markets. Whereas Poland, the former Czechoslovakia and Hungary are on the best way to catch up, Romania, Albania and Bulgaria are hard put to reach a higher level of international trade. The relevance of the former Soviet Union countries, which still have the biggest share in Germany's trade with eastern European countries, is decreasing as a result of the large internal political and economic problems. It is remarkable that western Germany's imports rose more than twice than exports. In 1992, all CEPs together were able to balance their amount of imports by an equal amount of exports.

Table 3 - Eastern Germany's Trade with Central and East European Reform Countries 1989-1992

	Imports								
	Mill. DM				Percentage change 1992/1989	Share in Total Eastern German Imports in p.c.			
	1989	1990	1991	1992		1989	1990	1991	1992
Total Imports from CEPs	26 871	14 854	6 122	4 615	-83	65.3	65.0	56.4	48.1
Former Soviet Union	15 392	9 107	4 254	2 882	-81	37.7	40.0	39.2	30.0
Poland	3 061	1 800	777	844	-72	7.4	7.9	7.2	8.8
Czechoslovakia	3 246	1 720	715	664	-80	7.9	7.5	6.6	6.9
Hungary	2 436	1 233	257	171	-93	5.9	5.4	2.4	1.8
Romania	1 335	407	81	28	-98	3.2	1.8	0.7	0.3
Bulgaria	1 324	545	38	37	-97	3.2	2.4	0.4	0.4
Albania	77	41	0	0	-100	0.2	0.2	0	0
	Exports								
	Mill. DM				Percentage change 1992/1989	Share in Total Eastern German Exports in p.c.			
	1989	1990	1991	1992		1989	1990	1991	1992
Total Exports to CEPs	30 975	29 810	11 423	7 185	-77	75.4	78.3	65.5	52.1
Former Soviet Union	18 576	17 761	9 049	5 542	-70	45.2	46.7	51.9	40.2
Poland	3 116	2 944	997	524	-83	7.6	7.7	5.7	3.8
Czechoslovakia	3 814	3 405	647	791	-79	9.3	8.9	3.7	5.7
Hungary	2 597	2 696	376	179	-93	6.3	7.1	2.2	1.3
Romania	1 429	1 505	217	77	-95	3.5	4.0	1.2	0.6
Bulgaria	1 361	1 412	130	67	-95	3.3	3.7	0.7	0.5
Albania	83	88	6	5	-94	0.2	0.2	0.0	0.0

Source: Statistisches Bundesamt.

In contrast, eastern Germany's trade with CEPs declined sharply: in 1992 it reached only one fifth of its previous level (Table 3). The share in total foreign trade, however, remained high: 50 percent of total trade is still handled with the CEPs and the biggest part still falls upon the Commonwealth of Independent States (CIS). This is more a sign for a lack of competitiveness in western markets than a sign of strength in eastern markets. In particular, exports to

CEPs, especially to CIS, are heavily backed by export promoting measures. By this eastern Germany has a significant surplus in its trade balance with CEPs.

Table 4 - Germany's Trade with Central and East European Reform Countries by Classes of Goods 1989-1992

	Imports							
	Mill. DM				Share in Total German Imports in p.c.			
	1989 (a)	1990 (a)	1991 (b)	1992 (b)	1989 (a)	1990 (a)	1991 (b)(c)	1992 (b)(c)
Total Imports from CEPs	19 243	21 788	32 564	35 007	3.8	4.0	5.1 (4.2)	5.4 (4.8)
Food, Drink and Tobacco	1 592	1 743	2 343	2 291	3.3	3.4	3.9	3.7
Raw Materials	1 387	1 407	1 669	2 406	4.2	4.8	5.8	9.1
Mineral Fuel	6 014	6 971	11 088	9 035	15.7	15.3	20.7	19.0
Animal and Vegetable Oil	39	30	60	52	2.2	1.9	3.7	3.0
Chemical Products	1 158	1 264	1 548	1 691	2.4	2.5	2.9	3.1
Engineering and Vehicles	1 156	1 832	3 796	4 358	0.7	1.0	1.7	2.0
Other Finished and Semi-finished Goods	7 898	8 542	12 061	15 173	4.3	4.4	5.5	5.4
	Exports							
	Mill. DM				Share in Total German Exports in p.c.			
	1989 (a)	1990 (a)	1991 (b)	1992 (b)	1989 (a)	1990 (a)	1991 (b)(c)	1992 (b)(c)
Total Exports to CEPs	24 515	23 458	37 436	37 312	3.8	3.6	5.6 (4.0)	5.6 (4.6)
Food, Drink and Tobacco	1 919	1 910	3 151	3 769	6.5	7.8	9.4	11.0
Raw Materials	356	400	549	580	2.9	3.4	4.4	4.7
Mineral Fuel	47	240	638	372	0.6	2.9	7.7	4.5
Animal and Vegetable Oil	65	49	62	98	3.4	3.1	4.1	6.5
Chemical Products	3 882	2 982	4 403	4 134	4.7	3.6	5.2	4.9
Engineering and Vehicles	10 333	10 798	18 320	17 049	3.3	3.4	5.6	6.4
Other Finished and Semi-finished Goods	7 913	7 080	10 315	11 310	4.3	3.7	5.2	5.7
	Intra-Industry Trade (d)							
	1989(a)	1990(a)	1991(b)	1992(b)				
Food, Drink and Tobacco	0.09	0.05	0.15	0.24				
Raw Materials	0.59	0.56	0.51	0.61				
Mineral Fuel	0.98	0.93	0.89	0.92				
Animal and Vegetable Oil	0.25	0.24	0.02	0.31				
Chemical Products	0.54	0.40	0.48	0.42				
Engineering and Vehicles	0.80	0.71	0.66	0.59				
Other Finished and Semi-finished Goods	0.00	0.09	0.08	0.15				

(a) Western Germany only. - (b) Including eastern Germany. - (c) In brackets: western Germany only. - (d) Grubel-Lloyd-Index, 0 means total intra-industry trade, 1 means no intra-industry trade.

Source: Statistisches Bundesamt

With regard to the main product groups - according to SITC - it is obvious from Table 4 that the composition of Germany's trade with CEPs is changing. This is only partly a result of the German unification.<sup>3</sup> Among imports the share of mineral fuel and raw materials is rising which is mainly due to the fact that the CIS currently functions purely as an appendage supplying this type of goods to the industrial nations. Among exports the share of food, drink, tobacco, animal and vegetable oil has nearly doubled. It is remarkable that Germany - the EC's leading industrial power - exports nearly the same amount of agricultural products to CEPs as engineering and vehicles.

Taking a deeper look on the composition of goods being traded, different stages of intra-industry and respectively inter-industry trade seem to be reached. A high level of intra-industry trade was already attained by food, drink and tobacco, but the rate decreased in the last year due to faster growing exports than imports. The normal case is the other way round: a very small degree of intra-industry trade in mineral fuel, chemical products, engineering and vehicles is gently increasing- not in big steps, however.

## 2 Foreign Direct Investment

As variables for foreign international market transactions stocks of foreign direct investment and turnover of foreign affiliates of German multinational enterprises are used. Germany is among a handful of countries which produces a consistent data base in a sufficient geographical and industrial breakdown. The used data differ substantially from data of other sources, mainly from the balance of payment statistics which is based on flows, not on stocks. In contrast to flows, stocks include reinvested funds (or consolidated losses) and changes in the net asset value. (For further details see Deutsche Bundesbank, 1993).

German enterprises are still at the top of the league of international investors. According to OECD statistics, their flow of FDI amounted to 20.7 bill. US-\$, approximately 12 percent of global foreign direct investment in 1991. This is remarkable because the majority of enterprises is now heavily engaged in rebuilding eastern Germany: with a deficit in the balance of current account Germany has become a net importer of capital - after more than two decades of being a major exporter of capital (Schmidt, 1993).

Until now the CEPs have played only a minor role in German enterprises foreign investment: in 1992 their share was below 1 percent. However, there is a clear upward trend. Many German firms have started to move production across the former border lines, preferably to Bo-

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<sup>3</sup> From 1991 the data base includes eastern Germany.

hemia and Moravia. There is little doubt that up to the year 2000 the amount of FDI by German enterprises in CEPs will reach 15-20 bill. DM - the same amount which they have invested in Spain and Portugal.

Table 5 - Foreign Direct Investment of German Enterprises by Groups of Countries 1989-1992 (Mill. DM) (a)

	Total	of which		
		Western industrialized countries(b)	Developing countries(c)	Central and East European reform countries
1989	205 562	182 722	20 762	304
1990	226 426	205 053	19 287	475
1991	258 841	233 724	21 859	1 251
1992(d)	285 680	257 605	22 910	2 320

(a) Stocks; end of the year. - (b) Incl. former Yugoslavia. - (c) Excl. OPEC. - (d) Estimated.

Source: Deutsche Bundesbank.

With respect to the target countries there exists a clear cut ranking: German enterprises favour Hungary and - increasingly - the former Czechoslovakia (Table 6). Both countries are not only the leaders in the reform process, but have a good reputation as a guarantor for creditability and stability, too. In contrast, the German engagement in Poland has been very low - although the distance from Cologne or Berlin to Warsaw is not larger than that to Prague or Budapest. This may be surprising because Poland's economic figures are impressingly good. Poland is the only post-communist country that is growing fast. However many German enterprises obviously mistrust the strategy of "muddling-through" of weak Polish governments. Until now not one of the leading German enterprises has risked an important deal with a Polish firm - comparable e.g. to the engagement of Volkswagen and Siemens in former Czechoslovakia.

Table 6 - Foreign Direct Investment of German Enterprises in Central and East European Reform Countries 1989-1992 (Mill. DM) (a)

	1989	1990	1991	1992(b)
Total	304	475	1 251	2 320
of which:				
Former Soviet Union	203	168	236	n.a.
Poland	10	26	63	n.a.
Former Czechoslovakia	n.a.	n.a.	508	n.a.
Hungary	73	266	412	n.a.
Note:				
Spain	10 997	12 937	14 692	15 237
Portugal	995	1 314	1 672	1 892

(a) Stocks; end of the year. - (b) Estimated.

Source: Deutsche Bundesbank.

It is not surprising that German investors in CEPs prefer engagements in manufacturing - this sector is their major target of foreign investment also in western countries (Table 7). In eastern countries, however, the share of manufacturing is clearly higher (1991: 75 percent) than in western countries on average (1991: 52 percent). Its dominating role is to be expected for several reasons: with the exception of the former Soviet Union, the CEPs are resource-poor and, consequently, few investment opportunities in energy and mining exist. Some countries also limit the entry of foreign capital in natural resource projects as well as in certain branches of the service sector (media, telecommunications, banking, insurance). And, perhaps most important, all these countries have adopted vigorous strategies in order to restructure and modernize their industry. Investment in manufacturing is often better remunerated than investments in other sectors.

Table 7 - Structure of Foreign Direct Investment of German Enterprises in Central and East European Reform Countries by Selected Branches 1989-1991 (percent) (a) (b)

	1989	1990	1991	Note:	
				Spain 1991	Portugal 1991
Manufacturing	89.7	65.0	74.8	67.4	67.9
of which:					
Chemical industry	3.8	4.4	14.0	21.7	10.0
Engineering	13.8	9.6	3.4	3.0	7.8
Vehicle building	n.a.	19.2	37.5	22.8	n.a.
Electrical equipment	2.9	2.7	2.3	12.5	3.0
Trade	3.6	15.3	15.0	13.2	20.1
Banking and insurance, investment funds(c)	6.7	19.7	11.2	19.4	12.0
(a) Stocks; end of the year. - (b) Incl. China. - (c) Incl. others.					

Source: Deutsche Bundesbank.

Since manufacturing is the major recipient, it is appropriate to examine the composition within this sector in more detail. Although it could be expected that labour- and capital-intensive industries such as production of consumer goods and food processing offer good opportunities for foreign investment, there is generally only a limited scope for it. Two thirds of investment in manufacturing are concentrated on four branches, namely chemical industry, engineering, vehicle building and electrical equipment.<sup>4</sup> There is a simple explanation for this: many of the technologies in labour and capital-intensive industries are relatively simple,

<sup>4</sup> The data published by sectors include China. The data for China are dominated by two large joint ventures of Volkswagen and Mercedes. Therefore, the importance of vehicle building is somewhat overstated.

and hence the possibility that foreign enterprises will gain firm-specific advantages is limited. In those branches subcontracting is dominant.

Presently, the main strategy of German enterprises going abroad is to build up "prolonged workbenches" in so-called human labour-intensive industries. They hire mainly foreign firms, e.g. producing industrial switches, computer keyboards or headlights and brakes for cars, which can serve as suppliers for their own production at home. Short distances between the domestic plants and the foreign subsidiaries make it easy to meet tight delivery schedules. This gives producers in most CEPs an edge on their Asian rivals. The main interest of German investors in CEPs, however, is not or not only sweat-shop labour. Most of them look for a long-term engagement. This explains why the structure of German investment in these countries differs clearly from the structure which is typical for developing countries. The structure is rather similar to that of Spain and Portugal, two of the preferred target countries for German enterprises.

Until now, the importance of German FDI in CEPs is still relatively small. At the end of 1991 the stock of FDI per enterprise was only 4.5 mill. DM on average, compared with 13.5 mill. DM in Spain and 8.5 mill. DM in Portugal. In Hungary the amount was only 2.5 mill. DM and in Poland it was even just 1.2 mill. DM (Table 8). An exception is the former Czechoslovakia with an amount of 17.5 mill. DM, but its figure is influenced by the Skoda-Volkswagen deal which "cost" Volkswagen 580 mill. DM - with (initially) prospected additional investments of 620 mill. DM in the following five years. Volkswagen holds not only a large joint venture with Skoda in Mladá Boleslav, but also hired several smaller plants located in other parts of Bohemia (Sereghyová et al., 1993).

Table 8 - Average Amount of Foreign Direct Investment of German Enterprises in Central and East European Reform Countries 1989-1991 (Mill. DM) (a)

	1989	1990	1991	Note:	
				Spain 1991	Portugal 1991
Total	4.9	2.8	4.5	13.5	8.5
of which:					
Former Soviet Union	14.5	6.2	7.6	x	x
Poland	0.9	1.0	1.2	x	x
Former CSR	n.a.	n.a.	17.5	x	x
Hungary	2.1	2.7	2.5	x	x
(a) Stocks; end of the year.					

Source: Deutsche Bundesbank.

At the end of 1991 only 287 German enterprises had taken major engagements<sup>8</sup> there (Table 9). For comparison: the number of enterprises engaged in Spain and Portugal was five-fold. In the eastern affiliates 60 000 persons were employed, of which even 17 000 in the plants of Mladá Boleslav (and its subsidiaries). The total turnover in 1991 was 4.2 bill. DM, just one tenth of the turnover of German affiliates in Spain.

Table 9 - Importance of Foreign Direct Investment of German Enterprises for the Central and East European Reform Countries 1989-1991

	1989	1990	1991	Note:	
				Spain 1991	Portugal 1991
Number of German affiliates	62	167	287	1 085	197
Employed persons (1 000)	8	25	60	141	36
Turnover (Bill. DM)	0.7	1.8	4.2	50.0	4.9
of which:					
Former Soviet Union	0.3	0.3	0.6	x	x
Poland	0.1	0.1	0.3	x	x
Former Czechoslovakia	.	.	0.9	x	x
Hungary	0.4	1.3	2.3	x	x
Balance (Bill. DM) (a)	0.8	1.5	3.9	31.5	3.7
(a) Manufacturing and trade only.					

Source: Deutsche Bundesbank.

The data suggest that in the first three years after the collapse of communism German enterprises only played a minor role in the process of restructuring in the CEPs. Especially Poland, Bulgaria, Romania and the states of the former Soviet Union widely failed to attract German investment. Obviously, the so-called investment climate has been estimated to be still unfavourable. However, there is no reason for dissatisfaction. It needs some time to fill the reputation gap which still exists. Competition for international capital is keen and shifts in the flows of foreign direct investment occur very gradually.

More and more German companies are discovering now the comparative advantages of the CEPs as attractive locations for off-shore production. These companies look intensively for cheap suppliers in neighbouring countries, especially along or near the border - in Bohemia, Moravia, Slovakia and also in Silesia. "Hongkong on one's doorstep" has meanwhile become a standard quotation in Germany. This makes many companies wonder whether to build new plants in Germany (incl. the New Laender) or beyond the eastern frontier.

### 3 Off-Shore Processing

As a variable for contracting exports and imports for and from off-shore processing (in German: passive Lohnveredelung) is used. This is a proxy because there are other forms such as licensing or management contracts. The data, however, are available only according to the German trade statistic classification.

The importance of off-shore-processing in Eastern European countries has enormously increased in the recent years (Table 10). More and more enterprises try to substitute parts of the self-made production by more cost-effective manufacturing in low-wage countries. The rising relevance of off-shore-processing in Europe (more than 70 percent of all German off-shore-processing is undertaken in Europe) is predominantly due to the increasing participation of the Eastern European countries, and the tendency is still rising (see also Graph 1). Within the Eastern European countries it is again particularly Poland, the former Czechoslovakia and Hungary who contribute the most to total off-shore-processing in Europe. Meanwhile, more than 40 percent of total German off-shore-processing is carried out in those countries.

Table 10 - Germany's Exportation for Off-Shore Processing to Eastern European Countries 1989-1992

	Mill. DM				(c)	Share (a)	
	1989	1990	1991 (b)	1992 (b)		1989	1992
Soviet Union	33.1	27.2	42.1	109.0	+229	7.2	1.4
Poland	352.6	638.0	952.8	1 263.3	+258	7.7	16.6
Czechoslovakia	89.4	123.3	460.3	946.7	+959	2.0	12.4
Hungary	430.6	546	736.0	895.0	+108	9.4	11.8
Rumania	240.7	244.6	286.8	369.2	+53	5.3	4.8
Bulgaria	31.5	43.4	64.3	97.6	+210	0.7	1.3
Note: Total Europe	3 082.5	3 557.6	4 621.8	5 432.8	+76	67.4	71.3
(a) Share in total German exportation for outward processing. - (b) Including eastern Germany.- (c) Percentage change 1992/1989.							

Source: Statistisches Bundesamt.

Off-shore processing is mostly practised in labour-intensive forms of production. A look on Germany's total exportation for off-shore processing reveals that texture and tissue take the biggest part followed by electrical engineering (Table 11). The CEPs seem to begin to exploit their comparative advantages by offering their low-wage-labour-force to western enterprises as well as German enterprises start to discover the opening CEPs for cost effective production. This holds especially for the borderline countries Poland and the former Czechoslovakia as well as for Hungary.



Graph 1- Germany's Exportation for Off-Shore Processing to European Countries 1989-1992

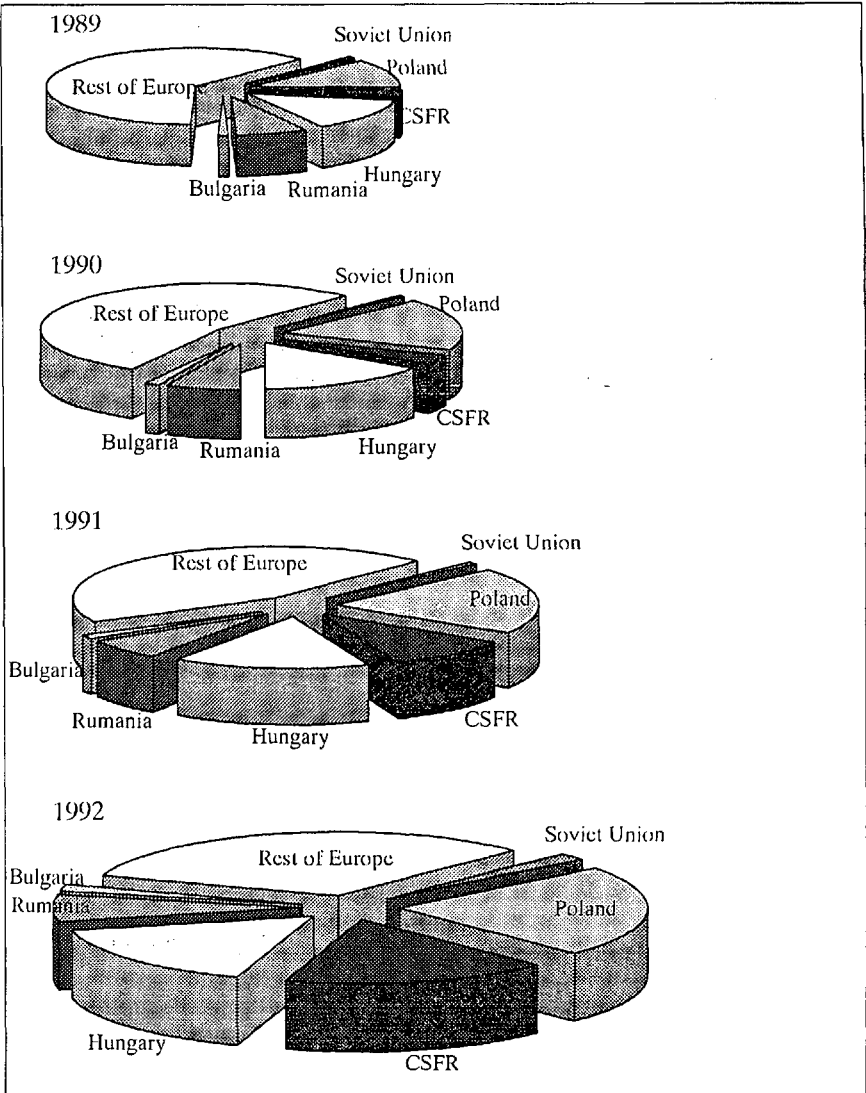


Table 11 - Germany's Exportation for Outward Processing by Classes of Goods 1989-1992

	Mill. DM				Share (a)	
	1989	1990	1991 (b)	1992 (b)	1989	1992
Food, Drink and Tobacco	15.6	19.1	35.5	51.4	0.3	0.7
Raw Materials	2.8	4.2	8.9	15.5	0.0	0.1
of which:						
Rayon Staple, Cellulose	0.2	0.3	0.8	1.3	0.0	0.0
Precious Stone, Raw Jewels	0.5	0.4	0.9	0.3	0.0	0.0
Semi-finished Goods	80.7	106.0	160.0	203.5	1.8	2.7
of which:						
Synthetic Fibre, Artificial Silk	36.9	46.0	58.0	71.3	0.8	0.9
Cotton	5.8	10.1	10.9	11.0	0.1	0.1
Finished Goods	4 477.1	5 036.7	7 162.0	7 346.9	97.8	96.5
of which:						
Texture, Tissue	1 810.9	2 171.2	2 582.0	2 839.0	39.6	37.3
Leather	220.8	236.4	266.4	258.8	4.8	3.4
Knitwear and Clothing	286.7	352.4	453.4	457.4	6.3	6.0
Electrical Engineering	1 047.6	985.0	2 154.9	1 586.1	22.9	20.8
(a) Share in total German exportation for outward processing. - (b) Including eastern Germany.						

Source: Statistisches Bundesamt.

## IV Conclusions

The main lessons from the paper are threefold:

- First, cross-border activities between Germany and CEPs are rapidly growing. German enterprises have responded quickly to changes in the political-economic environment. There is no doubt that Germany has some considerable advantages: it shares (together with Austria) a long borderline with the most promising CEPs, Poland, the former Czechoslovakia and Hungary. In addition, it has traditional ties to its eastern neighbours: Germany has always been the "natural" trading partner of these countries.
- Second, trade in goods and services is still the dominant form of cross-border activities, but other forms, activities of foreign affiliates and off-shore processing make up mightily. More and more German enterprises are discovering the CEPs as an attractive location for production. This leads many enterprises to wonder whether they should build up new plants in Germany (including the New Laender) or elsewhere beyond the eastern frontier.
- Third, industry and country variables strongly influence cross-border activities. Trade in goods and services and contracting are predominantly derived from comparative advan-

tages, particularly by low wage costs of the CEPs, especially in Heckscher-Ohlin industries. Foreign direct investment, however, can be found mainly in (mobile) Schumpeter industries (Klodt, 1992) which are more or less linked with the sourcing networks of multinationals. Until now, Hungary, the former Czechoslovakia and - although clearly lagging behind - Poland have been the preferred target countries.

Not all people are happy about this. German trade unions are afraid that their position will be eroded by the "unfair" competition of Czech and Polish cheap labour. They demand "appropriate measures" in order to stop the export of labour. And also the Czech and the Polish may find the influence of their unloved German neighbour a mixed blessing because they fear a resurrection of the ill-fated German hegemony. This can trigger heavy political and trade conflicts in which the internationally less influential players from the CEPs are at a disadvantage. Therefore, international trade policy is approaching a cross-road. Not only the Uruguay GATT Round needs a successful completion. A new round is necessary in order to take the interests of the CEPs into account.

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