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Working Paper

German multinationals

Diskussionsbeiträge - Serie II, No. 19

Provided in Cooperation with:

Department of Economics, University of Konstanz

Suggested Citation: Gilroy, Bernhard Michael; Broll, Udo (1987) : German multinationals, Diskussionsbeiträge - Serie II, No. 19, Universität Konstanz, Sonderforschungsbereich 178 - Internationalisierung der Wirtschaft, Konstanz

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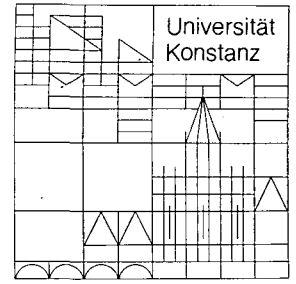
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Sonderforschungsbereich 178
„Internationalisierung der Wirtschaft“

Diskussionsbeiträge

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Serie II - Nr. 19

März 1987

A 9 2011 / 87
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Weltwirtschaft
Köln

C147262

GERMAN MULTINATIONALS

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Forces of Globalization

Fundamental structural changes have transformed German production methods in world markets. Worldwide sourcing strategies of German multinational enterprises reflect the new international division of labour, that is the movement away from simple commodity exchange to international production. Global strategies of integrated international enterprises and the internationalization of the German economy are a result of the rising levels of interdependence among the world's nations.

Three Major Factors

Three major, interrelated factors lay at the center of the rapid rise of German multinational enterprises:

- the process of market expansion
- diversification
- and integration.

As is the case for most industrialized nations, the expansion of enterprises in Germany involved product differentiation and vertical integration. What made such rapid growth of German firms since the 1960's possible was an increasingly integrated market that was intensified through the expansion of means of transportation as well as communication and through the obtainment of economic and political unity. These factors have enhanced Germany's central management capacity on a world-wide basis. Furthermore, they have also expanded the contractual route of transferring and sharing firm specific assets throughout the world.

Industrial Realignment

Industrial realignment has been reinforced by another, more specific, movement. For a wide range of manufacturing commodities, relative factor abundance has become increasingly similar among nations internationally. Under these conditions the pattern of world specialization in production depends to a large extent on factors such as non-competitive firm behaviour and government behaviour. The internationalization of German firms is increasingly replacing market-oriented foreign trade. Commodities and services are exchanged internationally among the units of one firm. Strategic bundling of resources in non-market packages internal to hierarchical structures has led to an often 'invisible' international transfer of resources. As such, German economic structural adjustment and innovation processes have occurred at the firm level. Competitiveness has come to be based on 'private' absolute advantages internal to the firm.

Exports Stimulated German Foreign Direct Investment

It was the saturation of domestic markets and the under-utilization of domestic capacities that led to the use of exports by German firms as the initial strategy in crossing national borders. To illustrate this strategy a few figures are helpful.

In 1980, German exports and imports were valued at roughly eight times those of 1960. The contribution of exports to the German GDP over this time period has risen from some 15.8 percent to 23.6 percent. Up to the end of the 1970's Germany typically earned an export surplus (compare Table 1).

Table 1
West Germany's International Economic Involvement Since 1960

		1960	1965	1970	1975	1980	Growth ^a
<i>Trade</i>							
Exports (fob)	billion DM	47.9	71.7	125.3	221.6	350.2	10.5
	% of GDP	15.8	15.6	18.2	21.2	23.6	
Imports (cif)	billion DM	42.7	70.4	109.6	184.3	341.4	11.0
	% of GDP	14.1	15.3	16.0	17.6	23.0	
<i>Long-term private international capital flows:</i>							
Exports	billion DM	-1.4	-2.2	-8.6	-21.9	-27.4	16.0
	% of GDP	-0.5	-0.5	-1.3	-2.1	-1.8	
Imports	billion DM	+2.5	+4.6	+10.1	+2.5	+12.7	8.5
	% of GDP	+0.8	+1.0	+1.5	+0.2	+0.8	

^a Annual average growth rate. 1960 - 80

Source: Juhl, P. (1985), The Federal Republic of Germany., in: Dunning, J.H. (ed.), Multinational Enterprises, Economic Structure and International Competitiveness., John Wiley & Sons, New York, p. 128.

Exporting firms typically started off by servicing the foreign market through local distributors, the policies of which upon they had little or no control. The process of expansion, diversification, and integration into world markets made the need for more systematic management and ultimately the internalization of the control function of foreign distribution necessary.

Motivation Towards Investing Abroad

The basic motives for foreign investment strategies of German corporations are similar to those of international companies in other countries: securing market positions abroad, overcoming tariff and non-tariff barriers to trade, exploiting new markets, benefiting from tax and financial advantages, securing raw material inputs through vertical integration, taking advantage of low foreign wage rates etc. There are, however, particular motives which have played a more specific role to German firms investing abroad.

Market Motives And Competitive Rivalry

Studies based upon questionnaire results have revealed that German foreign direct investment is overwhelmingly motivated by market motives. One recent survey of German foreign investors revealed the following rating order of the 10 most important motives for investment abroad (as presented in Table 2).

Table 2

**Rating Order According to Significance of Motives
for Foreign Investment**

Motive	Rating			
	Total	IC's ¹	NICs ²	DCs ³
Extension of activities abroad to new markets	1	1	1	1
Securing and extension of an already existing market	2	2	2	2
Securing and control of marketing in the host country	3	3	4	3
Political stability of the host country	4	5	3	4
Export base for products of the German parent company	5	4	10	9
Overcoming of trade and export barriers	6	7	6	6
Expectation of a high investment return	7	8	5	7
Suppliers for enterprises in the host country	8	6	11	12
Low wage costs	9	12	7	5
Securing of supplies in the host country	10	10	8	8
Employment creation	11	17	9	10
Strengthening of the economic independence of the host country	12	18	12	11
Transport cost savings	13	9	19	16
Government promotional measures by the host country for direct investments	14	16	13	14
Production for the parent company in Germany (re-import)	15	13	14	20
Utilisation of technologies developed for the specific needs of the host country	16	15	15	18
Processing of indigenous raw materials for the host country's domestic requirements	17	19	18	13
Relocation induced by exchange rate	18	11	20	25
Supplier for a large German enterprise also operating in the host country	19	20	16	21
Low prices for raw materials and fuels	20	14	21	17
Governmental promotional measures by the Federal Republic of Germany for direct investments	21	24	17	19
Securing and extension of the raw materials base	22	21	22	15
Other reasons	23	22	23	22
Securing of energy supply	24	24	24	23
Promotional measures by international institutions for direct investment	25	25	24	24

¹ Industrialised Countries

² Newly Industrialised Countries

³ Developing Countries

Source: Gunter Kayser, Uwe Schwarting (1981), Foreign Investments as a Form of Enterprise Strategy: On the Results of a Survey, in: Intereconomics, November/December, pp. 295 - 299.

The "Extension of Activities Abroad to New Markets" was the most important motive (No. 1 rating), being followed by "Securing and Extension of an Already Existing Market" (No. 2 rating) and "Securing and Control of Marketing in the Host Country" (No. 3 rating). The significance of these three motives was regarded by 79.3 percent of the 654 subsidiaries of German parent companies in seventeen countries as being "large" or "very large". Motive number 4 "Political Stability in the Host Country" also plays a decisive role along with the factors sales and market. The survey demonstrated that before undertaking investments abroad more than 60 percent of the enterprises viewed the political stability of the host country as being guaranteed in the near future. The motives 5 and 6 illustrate the fact that German foreign investments commonly function as a "bridge-head", such that an intensification of exporting activity occurs using the new location as a base. Foreign investments possess a more complementary rather than substitutional rôle for the enterprise. The extension of production outside of German borders was often a result of trade barriers as represented by Motive 6.

"Expectations of a High Investment Return" and "Low Wages" are return-oriented and cost-oriented motives for foreign investment. Half of the surveyed enterprises regarded the ratings 7 and 9 as being equally important in the choice of which country to invest in.

Motive No. 8 "Suppliers for Enterprises in the Host Country" and No. 10 "Securing of Supplies in the Host Country" illustrate the willingness of the enterprises to adopt to the existing economic situation of the respective host nation.

It is perhaps interesting to note that the survey revealed that promotional measures by international institutions, as exist especially for investments in developing countries and newly industrialised countries, occupy the lowest level of the motivational order.

Direct investment patterns thus evolve out of the enterprises' desire to grow where the markets are. Foreign direct investment is only one way of doing international business, as such it represents a modality of international competition. The establishment of production facilities abroad was often promoted as import export markets were endangered by restrictive government policies or the oligopolistic rivalry of competitive firms. German industrial sectors engaging in a high volume of foreign direct investment are characterized by technological intensity, large firm size, and high intra-industry concentration rates which are all indicative of intensified levels of competition.

German Foreign Direct Investment Flows

As may be seen in Table 1 above, Germany's long-term private international capital outflows increased by about twenty times between 1960 and 1980. Yet the corresponding inflows in 1980 are only approximately fivefold. Thus the international pattern of locational advantage appears to have changed in disfavour of West Germany. Germany's international economic involvement through direct investment flows has expanded more rapidly than her export trade. German firms have realized that servicing important markets by exports alone would be inefficient in the long run. They have hence acquired production facilities abroad from which they can either serve one important local market or export from logistically advantageous locations to third countries.

How International Are German Firms?

The degree of internationalization of German firms can be measured on a scale lying between the two poles depicted by the purely domestic firm on the one side and the global enterprise on the other. How far a specific company has moved along this scale can be judged in terms of the degree of commitment of resources abroad and the relative contribution of overseas business to overall company goals. The involvement of the "Top 40" German multinational enterprises may be illustrated by some foreign direct investment - and -company personnel employed abroad figures as presented in Table 3 below, compared to the enterprises total employment and production figures (Table 4).

Table 3**The 'Top 40' German Multinational Enterprises (1982)**

Company	Foreign Employees (in 1,000)	Subsidiary Production (in Million DM)	Export Volume (in Million DM)	Foreign Direct Investment (in Million DM)
Siemens	104.0	9,905	12,179	664
Hoechst	82.7	13,850	11,927	889
Volkswagen	81.1	11,346	15,733	1,212
Bayer	80.2	19,700	7,020	832
Bosch	41.1	3,627	4,108	259
Daimler-Benz	36.6	7,756	17,833	423
Mannesmann	29.0	4,855	6,060	146
BASF	28.3	8,643	9,549	575
Agfa Gevaert	22.3	-----	-----	---
Thyssen	21.6	-----	-----	153
Gutehoffnungshütte	19.8	-----	10,060	---
AEG	16.5	2,117	3,633	40
Henkel	16.2	5,050	722	188
Triumph International	16.0 (ca.)	-----	-----	---
Boehringer (Ingelheim)	13.9	1,985	649	62
Varta	12.9	695	361	31
Brinkmann	12.2	-----	-----	---
Bertelsmann	11.9	-----	-----	---
VDO Schindling	11.3	-----	237	---
Grundig	11.1	1,369	150	45
Merck	10.9	-----	-----	---
Ford-Werke	10.8	-----	-----	---
Freudenberg	7.6	774	577	44
BBC	6.9	199	1,920	18
Krupp	6.8	1,622	5,602	48
Wella ca.	6.8	-----	-----	---
Schering	6.8	-----	-----	78
Dt. Babcock	6.5	-----	-----	---
Beiersdorf	6.4	946	231	90
Continental	6.1	451	673	42
Nixdorf	6.1	-----	-----	---
Enka	5.8	133	1,570	13
Degussa	5.7	1,520	3,901	62
Zeiss-Stiftung	5.6	-----	1,072	---
Flick-Gruppe ca.	5.5	-----	-----	---
BMW	5.5	-----	7,100	---
Kugelfischer	5.2	427	980	40
Triumph-Adler	5.1	-----	-----	138
Osram	5.1	508	453	14
Liebherr	5.0	-----	1,095	---

Source: Mettler, P.H. (1985), *Multinationale Konzerne in der Bundesrepublik Deutschland*, Herchen Verlag, Frankfurt/Main 1, p. A31.

Table 4

**Total Employment and Production Figures for the 'Top 40'
German Multinational Enterprises (1982)**

Company	Total Employees (in 1,000)	Production/Sales (in Million DM)
Siemens	324.0	40,109
Hoechst	182.2	34,986
Volkswagen	239.0	37,434
Bayer	179.5	34,834
Bosch	112.2	13,812
Daimler-Benz	185.7	38,905
Mannesmann	112.6	16,469
BASF	115.9	34,844
Agfa Gevaert	35.1	5,887
Thyssen	144.7	30,610
Gutehoffnungshütte	87.4	18,693
AEG	92.7	13,257
Henkel	33.6	8,158
Triumph International	-----	-----
Boehringer (Ingelheim)	22.8	3,515
Varta	-----	-----
Brinkmann	3.6	2,713
Bertelsmann	29.5	6,036
VDO Schindling	-----	-----
Grundig	31.5	2,863
Merck	19.6	2,493
Ford-Werke	49.1	11,724
Freudenberg	21.6	2,451
BBC	-----	-----
Krupp	78.2	16,720
Wella	-----	-----
Schering	20.1	3,511
Dt. Babcock	32.3	6,344
Beiersdorf	5.8	2,170
Continental	-----	-----
Nixdorf	16.0	2,287
Enka	30.1	4,000
Degussa	12.9	7,375
Zeiss-Stiftung	29.7	2,721
Flick-Gruppe	-----	9,701
BMW	47.5	11,620
Kugelfischer	23.8	1,988
Triumph-Adler	11.2	1,964
Osram	-----	-----
Liebherr	12.8	2,565

Source: J. Jürgen Jeske, "Die hundert größten Unternehmen", in: Frankfurter Allgemeine Zeitung, 20.8. 1983 Nr. 192, p.11.

In 1982, four German multinational concerns (Siemens, Hoechst, Volkswagen, Bayer) employed some 348,000 workers internationally. Seven other enterprises (Bosch, Daimler-Benz, BASF, Mannesmann, AEG, Thyssen, Gutehoffnungshütte) employed a further 212,700 workers internationally. The total volume of German foreign direct investment in 1982 was of the magnitude of 13,158 million DM according to official central bank statistics rising to 21,100 million DM by 1985.

Acquisition Strategies of German Multinational Enterprises

As recent empirical research has indicated, German international companies have realized their foreign expansion strategy during the period 1977 - 1981 mainly by acquiring a going foreign concern. Some 60 percent of manufacturing expansions of German multinational firms during the period 1977 - 1981 have applied foreign acquisition strategies of market entrance. Only 40 percent of German manufacturing expansions has occurred through the establishment of new subsidiaries.¹

Presently, German multinationals as surveyed by Olle (1985, p. 5) realize approximately one third of their capital investments in foreign locations, and the foreign subsidiaries of these firms represent some 30 percent of the entire number of employees of these concerns.² This reflects to some extent the high wage levels in Germany and locational advantages of low wage countries. Although these indicators, when compared to the engagement of internationally active firms in the middle 1970's, present a picture of an increased foreign corporate engagement, they are naturally not perfect indicators of the rapid international expansion of German firms.

The picture becomes even more vivid, however, when one examines German foreign production data. Since the mid-1970's German foreign production levels have more than doubled, with the consequence that the volume of German foreign production has commonly achieved a magnitude similar to that of the export volume of the respective mother firms (compare e.g. Table 3).

The "Catalysator" Effect Of Flexible Exchange Rates

Up till the end of the 1960's, the international competitiveness of German export manufactures was supported by the persistent devaluation of the German-DM. This permitted most German industrial branches to obtain a relatively good position in world markets. Simultaneously, import competition was pushed back. The exchange rate level acted much like a subvention upon locational conditions: on the one hand foreign markets could be serviced applying greater price margin calculations, and at the same time domestic investment was attractive. Under such a scenario foreign direct investment appeared unattractive to German entrepreneurs. However, with the introduction of flexible exchange rates in 1973 these price conditional competitive advantages of many German industrial branches were increasingly diminished. The Federal Republic of Germany was transformed in 1974 from a capital import - to a capital export land! The implementation of a flexible exchange rate acted as a "catalysator" of foreign direct investments

¹ see Olle, W. (1983), Strukturveränderungen der internationalen Direktinvestitionen und inländischer Arbeitsmarkt, München, Minerva Publikation. And further Olle, W. (1985), Der Umfang der Internationalisierung deutscher Unternehmen, p. 9 -11. in: Mettler (1985) op. cit.

² see Olle, W. (1985), p. 17.

behind which the more fundamental motives such as securing and winning market shares were concealed.

Product Differentiation Strategies of German Multinationals

German consumers demand differentiated, income elastic imported commodities. On the other hand, these imports have to be earned by exporting internationally competitive products. Increased levels of product differentiation in world markets have induced the mobilization of German capital bringing about an expansion in the volume of German trade flows, both inter- as well as intra-industry trade. Exploitation of returns to scale in production has led to diversification in national production and export structures as well as foreign direct investment flows of German enterprises thereby reducing the structural adjustment costs facing the German economy. The market for a specific product is related to that country's overall economic performance, which is in turn influenced by its political, financial, and legal institutions. As such the firms' objectives must be reformulated in the host country itself and subsequently integrated into the general strategy of the enterprise. Enterprises operating in foreign markets normally are assumed to possess some competitive advantage. In addition, internationalization creates other advantages, such as access to international capital markets, tax-induced profit margins, improvement of the firm's goodwill image (synergy effects). The product diversification strategies of German multinationals expresses an intensive specialization effect within the various sub-branches of the German economy. Non-price dimensions of competition connected with product differentiation strategies and international scale economies of firms respond themselves to differences in unit costs reinforcing the effect of possible cost-induced strategies of German multinational locational strategies of foreign direct investment.

A strategy of product differentiation reflects the firm's desire to lessen its dependence upon a narrow product assortment. One alternative is to shift production into higher quality products, which has been the traditional route of German multinationals. Another is to move downstream, through integration, from simple commodity production operations into process operations that are more closely related to engineering activities. A third possibility, specialization in entirely new activities, is tantamount to a partial or total exit from a previously held market niche.

The increasing significance of diversification strategies of German multinational enterprises is illustrative of their reaction to the slump in demand and the rise in production costs which characterized the 1970's. Diversification into higher quality products and processes offers better demand prospects and a lesser threat from foreign substitutes.

New Forms of International Involvement

Furthermore, German multinationals have been making increasing use of options such as joint ventures, technology-swapping arrangements or capacity-sharing arrangements, and countertrade strategies. These contractual forms of international involvement permit German enterprises to concentrate on those product lines in which they are most competitive while importing semi-finished inputs from abroad. Unfortunately, a value-added statistic as obtainable for the United States import and export structure is still not published officially in Germany.

German Multinationals And Institutional Constraints

Due to the institutional restraints confronting German firms with regard to organized labour a rationalization strategy often needed to combat foreign penetration and competition has not commonly represented a politically effective solution. Only those firms capable of adapting to their new industrial environment brought about by the integration of markets on a world basis will be able to profit from the potential earnings of a larger market. At the moment, this adaptation process is still in its infancy in many branches. The rising voices of protectionism in political arenas exemplify the structural adaptation processes that are in motion. The changing market structures due to rising levels of intraindustrial transactions have increased the velocity of change with regard to the competitive environment facing German producers.

Government Promotion Of Industries

The German government has followed a strategy of promoting advanced technologies facing intense competition internationally. In 1984, West Germany announced a four-year programme of \$1.2 billion to aid the microelectronics, communications and computer industries by institutionally reducing risks, improving training methods and developing applications, playing an indirect role in fostering the development of these industries which are characterized by high levels of competition among multinational enterprises.

German Foreign Direct Investment By Area

The proportion of German foreign direct investment in developed countries overall was substantially higher than that found elsewhere. Table 5 below demonstrates the magnitude of this heavy concentration.

Table 5:
German Foreign Direct Investment by Area (1976 and 1982)

	1976		1982	
	Million DM	in %	Million DM	in %
Total	49,081	100	109,043	100
within Developed Countries	36,291	73.9	82,350	75.5
- EC	16,836	34.3	31,945	29.3
- Other European	9,137	18.6	13,978	12.8
- Non-European	10,378	21.0	36,427	33.4
within Developing Countries	8,116	16.5	16,456	15.1
- Africa	769	1.6	1,511	1.4
- Latin America	6,518	13.3	12,717	11.7
- Asia	829	1.7	2,228	2.0
- OPEC-countries	1,864	3.8	3,225	3.0
- East Block countries	11	0.0	25	0.0
- Other	2,799	5.7	6,987	6.4

Source: Monatsberichte der Deutschen Bundesbank and Beilage zu "Statistische Beihefte zu den Monatsberichten der Deutschen Bundesbank", Reihe 3, Zahlungsbilanzstatistik Nr. 4, April 1984.

Roughly 75 percent of German foreign direct investments are located in the developed countries. This concentration of activity characterizes the sensitivity of German investors to per capita income, market size, income distribution structures, availability of necessary support and service industries, as well as the presence of advanced local financial intermediaries in potential locations.

Whereas little has changed with regard to the global distribution pattern of German foreign direct investment between developed and developing countries over time, there has been a drastic redistribution of German international investments within the developed countries. Up till the middle 1970's annual German foreign direct investment flows concentrated largely upon countries within Europe (with France, Switzerland, and Belgium-Luxembourg being the main investment targets). The concentration of German assets in neighbouring European countries was largely due to their proximity and similarity of industrial structure. During the second half of the 1970's, however, a significant reorientation of German foreign investment flows favouring non-European countries has occurred. German direct investment in the United States has largely replaced investments in the European Community and this trend is likely to continue in the near future. Furthermore, the first indications of increasing levels of German direct investment in Japan have been registered. Through their acquisition strategy of take-overs, German enterprises were able to expand into these markets relatively easily. Especially the German chemical industry has exploited the advantages of gaining existing distribution outlets through take-overs, avoiding many of the costs and risks associated with new establishments.

Whereas the direct investment flows in the developed countries have more than doubled since the mid-1970's, the engagement of German investors in developing countries has remained relatively small. German foreign direct investment in developing countries has traditionally been concentrated in Latin American countries such as Brazil, Argentina, and Mexico. The decrease in investment in these areas is to a large extent due to the balance of payment problems of these countries and the effect of the international recession period 1980-82 as well as the observed increased use of international contract cooperation forms without an explicit capital involvement. Furthermore, the wage cost induced expansion of German multinational enterprises which characterized the main motive of nearly one fourth of all German investment in developing countries during the 1970's has lost much of its force. New production methods involving microelectronics have decreased the wage cost share of many production processes, thereby eliminating wage differential orientation to go abroad.

German Investment in South Africa

It is perhaps interesting to note that South Africa, as the only industrial land of the black continent, has despite the increasing level of political instability since 1983 received more German investment capital than during the more peaceful years of the past. This investment strategy is in strict contrast to the industrial investment policies of most other industrialized nations who have preferred not to support the apartheid system. Apparently, the long-run prospect of a rapidly expanding market in South Africa has achieved the overhand in the strategic planning of German multinationals active in South Africa compared with the short-run risks of political instability and shifts of power.

The Sectoral Structure of German Foreign Direct Investment

German foreign direct investment is not only concentrated by area but by sector as well (compare Table 4 below). The most important German foreign investor has remained the chemical industry making up almost 20 percent of total foreign direct investment flows. The chemical industry is then followed by the holding companies (insurance) and credit institutes with a further 18 percent of total investment. The service sector has become a strong element in German direct investment flows, compared to the mid-1970's.

Table 4**The Sectoral Structure Of German Foreign direct Investment According to Main Industrial Sectors (1976 and 1982)**

	1976		1982	
	Million DM	in %	Million DM	in %
Total Stock:	48,377	100	109,043	100
- Mining	1,814	3.7	4,459	4.1
- Chemical	10,057	20.8	21,339	19.6
- Electrical & Electronic	5,885	12.2	11,171	10.2
- Transport/Automotive	4,608	9.5	9,979	9.2
- Machinery	3,316	6.8	6,883	6.3
- Iron + Steel Production	1,539	3.2	3,891	3.7
- Holding Companies	6,286	13.0	11,805	10.8
- Banking	2,603	5.4	7,536	6.9
- Trade	2,262	4.7	4,150	3.8

Source: Mettler, P.H. (1985), p. A24

Internationalization of German Production

The foundations of intensified real capital integration world-wide through the internationalization of production of German multinationals are threefold:

- Firms have merged, bought or built up foreign production in order to secure foreign markets for their products.
- Firms have furthermore followed a strategy of securing raw materials necessary for domestic production processes through vertical integration in natural resource markets.
- An intra-firm division of labour has arisen brought about by locational production cost differences.

This process of internationalization of German production has been extensive in the more traditionally export oriented industrial branches such as the chemical or textile industries. Intra-firm trade transactions of German multinational firms have been estimated to be of the magnitude of some 20 percent, illustrative of the intensive specialization effect within the various domestic branches of the international economy combined with an increasing expansion of the differentiated product assortments of German multinational firms. German multinational investments have to a large extent consisted of horizontal investments. The establishment and development of integrated markets has promoted rationalization of operations within the political restrictions on a horizontal basis, allowing German firms to obtain economies of scale through an international division of production. This tendency of outward-looking strategies of German multinationals will continue to intensify world competitive intensity levels in the future.