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Rolf Jungnickel*

Globalisation: Exodus of German Industry?

Many commentaries on the present economic situation contend that Germany is increasingly "exporting jobs" rather than producing competitive goods and services. Can Germany continue to compete effectively with other business locations in the battle for mobile investment capital?

To those who have followed the public debate about the "globalisation" of the German economy, Germany's prospects as a business location may appear bleak. Capital flows on account of direct investment abroad reached a record of over DM 50 billion in 1995, while foreign direct investment in Germany amounted to only DM 13 billion. The Federal Association of German Industry now sees Germany as a "world champion exporter" only as far as the export of jobs is concerned. However, closer examination shows that the sometimes exaggerated portrayal of the link between adverse developments in the domestic economy and the trend towards globalisation needs to be qualified.¹

"Globalisation" means both the *growing together* of product markets across national borders and the increasingly strong direct international integration of production in the form of direct investment, strategic alliances and "global sourcing". The globalisation of markets and production allows investment to become more mobile; it makes for keener competition between German and foreign locations. If steps are taken to prevent the development of restraints on competition, globalisation leads to more efficient production. It is therefore not a zero-sum game, but offers more opportunities than risks. Nevertheless, as well as winners, who gain additional earning opportunities, there may also be losers (countries, industries, firms, groups of workers) whose earning opportunities worsen.

The question whether a particular country, in this case Germany, is one of the losers is therefore entirely open. It has both a quantitative and a qualitative dimension. The *qualitative* aspect relates to the

circumstances in which activities performed abroad jeopardise domestic production, in other words the extent to which they lead to the export of competitive jobs and incomes. An examination of the proposition that globalisation has accelerated rapidly since the late eighties² helps to clarify the *quantitative* aspect and provides indications of the general relevance of globalisation for domestic economic policy.

A sudden increase in globalisation would have to be reflected in significantly faster growth in international economic ties than in domestic output (Figure 1). The available evidence does reveal a clear trend towards the globalisation of the German economy, but neither a sudden increase nor a conspicuous difference from developments elsewhere.

□ At least until the early nineties, the growth in foreign trade in nominal terms was barely faster than the growth in domestic output,³ while production abroad increased at a significantly higher rate. This combination could indicate that international production networks geared to exploiting national cost differences were not developed as rapidly as had generally been expected. It was not until the last two years (1994 and 1995) that the rise in foreign trade

¹ The remarks that follow are based largely on an HWWA study prepared within the framework of the Institute's regular reports on the structure of the German economy for the Federal Ministry of Economic Affairs (H.-H. Härtel, R. Jungnickel, D. Keller et al.: *Grenzüberschreitende Produktion und Strukturwandel – Globalisierung der deutschen Wirtschaft*), to be published shortly by NOMOS Verlag.

² See for example OECD: *Globalisation of Industrial Activities*. Background Report, Paris 1994.

³ The internationalisation of activity as a result of foreign trade has been greatly underestimated in recent years, however, owing to German reunification, cyclical disparities and changes in EU statistics. Moreover, in real terms foreign trade increased much faster than output, as pointed out in particular by GATT and the WTO; see WTO: *International Trade 1995*, Geneva 1995, pp. 3 ff.

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and foreign production accelerated, but even this cannot be described as a fundamentally new trend towards globalisation.

□ The stock of German direct investment abroad increased by a factor of well over two between 1985 and 1994 to stand at DM 348 billion; in dollar terms it actually quadrupled. At the end of that period it amounted to around 12% of GDP, slightly above the average for the industrial countries as a whole and higher than in the USA, Japan and Italy, but well below the figures for Belgium (about 21%), Sweden and the United Kingdom (26%), Switzerland (31%) and especially the Netherlands (38%). The foreign involvement of German businesses in the form of direct investment can therefore be described as average. German firms are giving increasing consideration to manufacturing sites abroad when preparing their expansion and investment plans, but no more so than their French counterparts, while the locational decisions of British investors are geared more strongly towards foreign countries. Direct investment abroad can clearly not be interpreted primarily as "flight" from adverse locational conditions at home; rather, it is a normal element in corporate growth strategies that enables a company to exploit its particular strengths on a broader scale.

□ Globalisation of the economy is therefore not a fundamentally new phenomenon but the continuation of developments that have been in train for some considerable time. This is not only true of Germany, it applies worldwide.⁴ The globalisation of the German economy has nonetheless reached a considerable level. More than 7,000 investors operate over 21,000 companies abroad with more than 2.6 million

employees, equal to around 15% of total employment in domestic private sector companies in the old Länder. The industrial companies abroad alone had sales of almost DM 500 billion in 1994; they employed 1.8 million workers, equal to more than one-quarter of total industrial employment in Western Germany (Table 1).

Displacement of German Production?

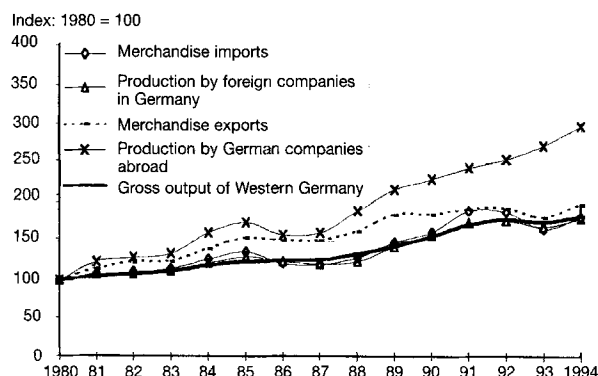
The claim that an exodus of German business is taking place is based on the underlying assumption that the globalisation of firms can lead to the curtailment of domestic activities and hence harm German locations. In principle, this possibility arises as soon as firms optimise their production internationally. Unlike national economic policy-makers and production factors tied to a particular location, they are not concerned with maximising production and income in the home country.

The relationship between domestic and foreign activities is far from clear-cut, however. An expansion in production abroad does not necessarily entail a contraction in production in the home country, nor need it be prejudicial for locations in Germany. As regards the link between economic developments in the home country and investment abroad, it is clear that there are fundamental differences between the transfer of production to low-wage countries and an expansion in production in industrial countries.

The debate about the transfer of production to low-wage countries intensified with the opening-up of the reforming countries in Central and Eastern Europe (CEECs) to foreign investment. German companies were quick to seize the new opportunities in the region; by the end of 1994 they had invested over DM 8 billion in the CEECs and their subsidiary and associated companies there employed more than 200,000 workers, almost three times as many as in 1991. If one also includes the typical host countries on the Southern and Western periphery of Europe and the East Asian developing and newly industrialised countries, many of which can no longer be regarded as low-wage countries, the number of persons employed by "German" enterprises in these regions rises to over 500,000 of which just under half are in CEECs. In macro-economic terms this is a substantial figure, but a job created in a host country cannot be equated to a job lost in Germany, as production abroad is far more labour-intensive. The relative scale

Figure 1

The Internationalisation of the German Economy, 1980-1994



Sources: Deutsche Bundesbank, Federal Statistical Office, own calculations.

⁴ For details on international corporate integration on a world scale, see also UNCTAD: World Investment Report 1995.

Table 1
Employment in Foreign Companies in 1980 and 1994¹

Sector	German companies abroad			Foreign companies in Germany		
	1994 (‘000)	1980 as % of total employment in Western Germany	1994	1994 (‘000)	1980 as % of total employment in Western Germany	1994
Primary Sector²	13	2	2	10	4	2
Manufacturing	1810	18	29	1104	17	18
Chemicals	352	56	66	172	24	32
Engineering	175	13	20	146	14	17
Office machines/ADP equip.	9	16	15	33	49	55
Vehicles	380	28	51	142	19	19
Electrical appliances	362	25	39	165	19	18
Textiles	39	8	26	18	9	12
Clothing	36	12	32	8	1	7
Construction	72	2	4	46	1	3
Services³	624	7	12	368	7	7
Distribution	476	10	15	278	7	9
Transport, communications ⁴	65	5	8	36	5	5
Finance	43	2	6	26	2	4
Insurance	40	8	17	28	16	12
Total⁵	2645	11	15	1673	10	10

¹ Employment in foreign subsidiaries as a percentage of employment in the relevant sector in Western Germany in 1980 and 1994. Definition of employment: for manufacturing, Statistisches Bundesamt Series 4.1.1; for other sectors, employees in accordance with national accounts (Statistisches Bundesamt Series 18). ² Including public utilities. ³ Sum of distribution, transport and communications, finance, insurance. ⁴ Excluding Post Office and railways. ⁵ Excluding Post Office, railways and the health service.

Sources: Deutsche Bundesbank, Federal Statistical Office, Federal Labour Office, own calculations.

of “German” production abroad is therefore a better indicator of the economic significance of transfers of production abroad than is the level of employment abroad. As regards the possible export of jobs as a result of investment abroad, a number of clear qualifications are appropriate:

□ German production in typical host countries, which is equal to no more than 7% of total German industrial production abroad, will represent only a small part of the globalisation of German firms for the foreseeable future.⁵

□ German production in low-wage countries in 1992 amounted to less than 2% of the total turnover of West German industry. The leather and footwear industry was an exception, with 8%. In the case of the clothing and footwear industries in particular, the massive transfers of production by means of outward processing, primarily in CEECs, should also be taken into account.⁶ If this form of cross-border production and the equally important production of goods to order are included, the transfer of manufacturing to low-wage countries can be estimated at more than 30% of the turnover of the clothing industry, for example. The “migratory tendency” that this figure demonstrates in parts of one industry does not, however, alter the general assessment that transfers

of production to low-wage countries are still not a key factor in overall industrial performance in Germany.

□ “German” production in low-wage countries averages only around one-quarter of German imports from these countries. Even if the entire output found its way onto the German market, it would not be one of the main reasons for the strong pressure of imports. Nevertheless, for most firms in the clothing, footwear and textile industries and some companies in other sectors it is of central importance, especially if outward processing is included.

□ Transfers of production on wage-cost grounds have clearly accounted for only the smaller part of German involvement in typical host regions so far. This also applies to the CEECs, as can be deduced from the sectoral composition of direct investment abroad: both German and international direct investment is concentrated more on industries

⁵ Even in 1995, when total flows of German direct investment abroad soared to more than DM 50 billion, only around DM 4 billion, or less than 10%, went to the CEECs; see Deutsche Bundesbank: Zahlungsbilanzstatistik, May 1996.

⁶ H. Gabrisch and K. Werner: Die Integration der mittel- und osteuropäischen Länder in die europäische Wirtschaft, Halle 1995; P. Naujoks and K.-D. Schmidt: Outward processing and East European transition countries: issue and results from German statistics, Kiel 1994.

producing import substitutes and less frequently traded goods than on the export sectors of the CEECs.⁷ This assumption is confirmed by business surveys in Germany and abroad.⁸ Rather than displacing German exports, sales-oriented investment abroad probably stimulates increased shipments of intermediate products, opens up the

markets for the investors' other products and leads to additional shipments by competitive German industries as a result of the income effect.

More weight than by this quantitative assessment is carried, however, by the fundamental argument that transfers of production to low-wage countries on grounds of cost generally benefit Germany as a business location rather than harming it. It is true that such transfers usually lead directly to a loss of jobs in Germany, but if the products in question are ones that it is not viable to manufacture in Germany because of the level of wages, for example, shifting production abroad should be viewed as a positive move. Cheap imports mean an increase in German real incomes, and components from factories abroad help maintain the competitiveness of manufacturing that continues to be performed in Germany. This is particularly evident in the German footwear and clothing industries, which would have suffered far larger cuts in

⁷ Ibid.

⁸ EBRD Transition Report, London 1994. According to a survey by the Verband der Bayerischen Metall- und Elektro-Industrie (Investitionen im Ausland: Umfang, Richtung, Motive, Arbeitsplatzeffekte, Munich 1995), cost considerations are paramount only for small foreign investors. Even for Austrian firms, which are especially heavily involved in CEECs, the predominant consideration is product sales. See for example J. Stankovsky: Multinational Investment and Economic Growth in Eastern Europe, paper for the conference "Banking, International Capital Flows and Growth in Europe", Potsdam 1995; P. Neuendorfer and W. Bach: Fünf Jahre Ostöffnung – österreichische Unternehmensbeteiligungen in Osteuropa, in: Information über Multinationale Konzerne, Sondernummer 1995, pp. 14 ff. A recent survey on Poland, however, points to increasing export orientation; see Paiz: Foreign Investment in Poland: Public and Private Attitudes, Warsaw 1996.

Friedrich Heinemann

Die Finanzverfassung und Kompetenzausstattung der Europäischen Union nach Maastricht

Eine finanzwissenschaftliche Soll-Ist-Analyse

One precondition for the success of the "Maastricht II" intergovernmental conference is an impartial analysis of the weaknesses of the current EU constitutional arrangements.

On the basis of the principles governing public finance, the author analyses the basic financial arrangements which would be best suited to meeting the challenges posed by a single currency. Achievement of this ideal would be characterised by a balanced distribution of tasks between the EU and the Member States and by a high level of self-discipline as regards debt. Corresponding proposals for reforms are put forward with the aim of checking any increased incentives to incur debt following the commencement of monetary union.

This monograph will be of valuable assistance to all persons who are active in the fields of politics, business, scholarly studies and journalism and who are interested in the discussions on the reform of the EU. They will find here solid and easily understood arguments and original proposals for improvements.

The author works at the Centre for European Economic Research in Mannheim and in 1995 received the Ludwig Erhard award for economic journalism.

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■ remainder as in German text



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production were it not for outward processing and the purchase of foreign inputs. Close integration with low-wage countries therefore does not "undermine" the German economy. The transfer of production abroad releases resources for more productive purposes and creates scope for structural changes that boost productivity. The increase in imports is associated with new export opportunities for other firms and branches of activity. German businesses are exploiting these opportunities, as can be seen from Germany's continued trade surplus both with CEECs (excluding Russia) and the East Asian newly industrialised countries.

The products whose manufacture has been transferred to the CEECs can no longer be produced profitably in Germany, as can be seen from the level of per capita turnover, which serves as a crude indicator of labour productivity. Where there is a fundamental productivity shortfall it cannot be assumed that foreign production and jobs could be relocated to Germany instead. The values shown in Figure 2 for low-wage countries are at best one-third as high as those for Germany. In the problem industries of leather processing/footwear and clothing, productivity is even further below the levels achieved in Germany (10% maximum).

The intensified integration of trade and production with low-wage countries does produce winners and losers. While highly productive workers and competitive sectors gain, less mobile and less qualified workers come under pressure, especially in traditional industries. The more intensive division of labour with host countries therefore reinforces trends that already exist at national level, mainly on account

of rationalisation. Problems arise particularly if uncompetitive industries contract more rapidly than other parts of the economy expand and/or if expanding industries have no use for workers no longer required in traditional sectors and/or if expanding and contracting industries are far apart geographically.

Restricting German direct investment abroad would not effectively solve these problems. Such a policy breaks down even at the point of differentiating direct investment according to its employment effects. In addition, most of the labour market problems would arise in any case as a result of the shift in trade flows, even without German direct investment abroad. If structural change is caused not only by the globalisation of markets but also by the globalisation of production by German investors through direct investment, global sourcing and outward processing, the economic policy problems are actually mitigated. The fact that production processes can be divided up within the firm itself or between partners and can be carried out in geographically discrete locations means that transfers of production abroad no longer affect the entire value added and employment of the industry or enterprise. Structural change may occur sooner, but it is focused more precisely on individual stages of value creation and hence occurs to a greater extent within the sector and within the individual firm. It may go beyond market-driven structural change, in that it also affects simple value creation stages that were previously part of complex production processes and hence not directly exposed to international competition, but it will be less intense overall.

Table 2
Employment and Turnover of German Subsidiary and Associated Companies
in Typical Host Countries, 1985 - 1994

Countries / regions	Turnover in DM bn				Employment in thousands			
	1985	1989	1994	Percentage growth 1989-1994	1985	1989	1994	Percentage growth 1989-1994
Ireland	1.3	2.1	4.9	133	8	10	12	20
Mediterranean countries ¹	5.3	10.8	16.0	48	66	84	108	28
European reforming countries ²	0.1	0.7	19.1	2629	2	8	212	2450
Asian Pacific ³	11.3	16.9	32.7	93	108	137	200	46
Total host countries	17.8	30.5	72.7	118	179	240	532	222
By comparison:								
World (excluding host countries)	546	671	894	33	1607	1933	2113	9

¹ Portugal, former Yugoslavia, Greece, Turkey, Cyprus, Malta, Morocco, Tunisia. ² Poland, former Czechoslovakia, Hungary, Bulgaria, Romania, former Soviet Union. ³ South Korea, Taiwan, China, Hong Kong, Thailand, Malaysia, Singapore, Indonesia, India, Sri Lanka.

Sources: Deutsche Bundesbank: Beihefte zur Zahlungsbilanzstatistik; own calculations.

Locational Competition between Industrial Countries

Given the circumstances described, the integration of production with CEECs is not to be regarded as a central economic problem; instead, it offers an opportunity to increase productivity and real incomes. From the point of view of the export of jobs, more attention should be paid to transfers of production that generate high incomes. The main competitors in these areas are the neighbouring European countries. In Western Europe investment is particularly responsive to differences in locational conditions; it is here that trade barriers are lowest and locational conditions for the high-wage manufacture of high-tech products must be considered to be comparable to those obtaining in Germany. Any minor locational disadvantages can be overcome by using the investors' mobile resources. These aspects can find expression in the strategies of German and foreign investors.

German investors have built up considerable production capacity in the rest of Western Europe (and the USA) with a level of productivity comparable to that in Germany (see Figure 2). With advancing "Europeanisation", it is becoming increasingly easy for these investors to recognise locational advantages in neighbouring countries, and keener international competition ensures that these possibilities are exploited in the production process. So far, however,

no massive transfers of high-wage production to the detriment of German manufacturing sites have been observed. The bulk of German direct investment continues to be oriented towards sales in the host country. The "market share" of exports to partner countries (German exports as a percentage of the partner country's GDP) is highest in countries where German industry is also particularly prominent as a local producer (especially Austria and Belgium). This correlation does not hold for all countries – exports to the United Kingdom, Sweden, Denmark and Switzerland have fallen, whereas "German" production in these countries has risen – but on balance it is possible to speak of complementarity between German domestic and foreign production rather than the displacement of one by the other, although the net effect is rather small, as imports are also positively correlated with production abroad.⁹

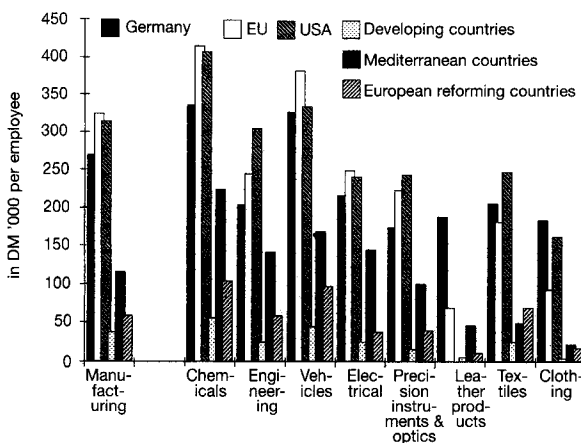
Decoupling Tendency

The correlation between production abroad and exports has weakened since 1989, as market studies show. Decoupling is clearly taking place. By contrast, the correlation between foreign production and imports became closer in the early nineties. This could indicate that German companies are also tending towards a division of labour among manufacturing plant in Western Europe in which German locations occupy a less central position than previously. Skilled workers in industry and services could therefore also come under increased competition from abroad.

The new trend could, however, also be attributable to factors other than a deterioration in the quality of German locations:

- ☐ German reunification led to a decline in exports and an increase in imports.
- ☐ Exports were also affected by the recession in important export markets.
- ☐ Trade within the EU has not been fully recorded since 1993.
- ☐ An increasing volume of production allows European subsidiaries to achieve economies of scale;

Figure 2
Comparison of Turnover Productivity¹
in Germany and at "German"
Factories Abroad in 1992



¹ German sectoral turnover per employee or turnover of foreign manufacturing companies per employee.

Sources: Deutsche Bundesbank, Federal Statistical Office, own calculation.

⁹ This corresponds to the findings of earlier studies, such as H. Wilkens and M. Hackenbruch: Direktinvestitionen als Element der weltwirtschaftlichen Verflechtung der Wirtschaft der Bundesrepublik Deutschland, in: Außenwirtschaft, No. 4/1988; H.-D. Westerhoff: Direktinvestitionen zur Internationalisierung der deutschen Wirtschaft, in: IFO-Studien, Vol. 37, 1991/1-4; M. Krakowski et al.: HWWA-Strukturbericht 1991, Hamburg; J. Beyfuß and B. Kitterer: Direktinvestitionen im Ausland. Exportkonkurrenz oder Marktsicherung?, Cologne 1990.

dependence on German components can then be reduced without this indicating shortcomings in German locations.

□ The high proportion of corporate acquisitions in total direct investment reduces trade integration between the domestic and foreign operations of the firms involved, at least in the short term. Acquired firms do not change their procurement behaviour immediately.

A balanced judgement of the relationship between foreign and domestic production will not be possible until the distortions caused by reunification, cyclical disparities and the changeover in EU trade statistics have run their course and it is clearer how far the development of international production networks constitutes a new trend in globalisation.

Exodus of Research and Development?

The possible transfer of research and development (R&D) to countries with a more accommodating attitude towards research or lower costs is often considered to be particularly problematic. The limited evidence available does suggest a tendency for German companies to move their research activities abroad.¹⁰ The internationalisation of R&D follows, with a lag, the internationalisation of production. German companies are not ahead of the rest of the field in this respect, however;¹¹ the scale of their foreign research can be classified as average, whereas firms from the United Kingdom, Sweden and Switzerland have internationalised their R&D efforts to a much greater extent. Moreover, R&D by German companies abroad has to be set against that undertaken by foreign firms in Germany. German locations come out relatively well on this score; the balance-of-payments statistics show a surplus of around DM 700 million in respect of R&D activities in 1995.¹²

¹⁰ See C. Dörrenbächer and M. Wortmann: The Internationalization of Corporate Research and Development, in: *INTERECONOMICS*, Vol. 26 (1991), No. 3, pp. 139-144; and NIW et al.: Zur technologischen Leistungsfähigkeit Deutschlands. Erweiterte Berichterstattung 1995, Hanover et al. 1995.

¹¹ Ibid.; see also J. Cantwell: Innovation in the global economy, University of Reading, Discussion Papers in International Investment and Business Studies, No. B 197, May 1995.

¹² See Deutsche Bundesbank: Technologische Dienstleistungen in der Zahlungsbilanz im längerfristigen Vergleich, in: *Monatsbericht*, May 1996, pp. 63 ff. Nevertheless, there is a larger and rapidly growing deficit of DM 812 million on engineering services.

¹³ The rapid growth in the stock of direct investment is partly attributable, however, to interest-rate-related intra-group lending (Deutsche Bundesbank 1993). These commitments are likely to be unwound when interest rate differentials and exchange rate expectations return to normal.

The globalisation of research and development should therefore be seen as a normal part of a strategy to broaden the technology base and expand abroad. Investors benefit from the external effects of technological and scientific systems abroad and from the exchange of knowhow and services, which can take place with foreign parts of the group at relatively little transaction cost. On the other hand, group control of the development and use of technical knowhow increases its mobility and that of the production based upon it; both factors mean keener competition for German locations. If research and development can be performed or used more efficiently abroad, this may reinforce the development of competing concentrations of high-tech activities abroad. This appears not to have happened on a major scale so far.

Foreigners' Siting Decisions

Last year foreign companies made record direct investments of DM 13 billion in Germany. This was a great exception, however, as in the last ten years inflows of this kind rarely exceeded DM 5 billion a year and were generally far lower, at best equal to 10-15% of capital outflows on account of German direct investment abroad.

Given the minimal average level of direct inward investment, it would seem reasonable to conclude that foreign investors have long rejected Germany as a location. Nevertheless, inflows of direct investment, especially those to Germany, do not present the full picture, as many foreign-controlled firms are long established and are no longer dependent on capital injections from their foreign parent company. If one takes the figures on the stock of direct investment and data on foreign-controlled companies (turnover, employment), which more fully reflect the extent of direct investment and also take account of the initial level of direct investment, the situation appears less dire:

□ Foreign investors increased their involvement in Germany, even during the international boom in direct investment in the late eighties.¹³ German investment regions have broadly maintained their position in worldwide direct investment since the early eighties, and at a level that roughly corresponds to Germany's weight in the world economy (7-8%).

□ Germany's ratio of the stock of direct investment to GDP (around 8% in 1992) cannot be regarded as below-average, given the size of the country. In the last ten years it has even risen slightly. The proportion of employment accounted for by foreign-controlled

companies has remained constant at 10% since 1980 and at 17-18% in manufacturing. The figures for comparable countries (the United Kingdom, France, Italy) are similar.

□ (Western) Germany appears to offer advantages for the siting of high-value activities. It is a traditional centre for R&D by foreign companies. According to a recent survey by the Donors' Association, foreign-controlled companies account for around 16% of total R&D expenditure by the domestic economy.¹⁴ This corresponds more or less to their share of industrial output. Given the particularly high centralisation of R&D at parent companies,¹⁵ Germany's position is to be regarded as remarkably strong. Germany has always been a key research and development location for US corporations. Germany has a clear lead, with around one-quarter of their total foreign R&D activities, well ahead of the United Kingdom, with around 15%. As much as two-thirds of R&D activities for foreign vehicle manufacturers is performed in Germany.¹⁶

Nevertheless, the trend of foreign involvement in Germany also gives grounds for a critical assessment:

□ The high R&D intensity is attributable largely to the take-over of research-oriented German firms.¹⁷ To that extent, no new R&D facilities are being established in Germany.

□ Foreign-controlled companies are no longer a dynamic force in the economy. They are not over-represented in growth sectors, with the exception of office and data-processing machines. Only in a few branches of activity, most of which cannot be described as strategic, do they achieve significantly above-average rates of growth (chemicals, metal goods, non-ferrous metals, paper and paper products, tobacco products, leather goods, clothing).

□ In the late eighties the EU as a whole was able to enhance significantly its attractiveness to inward

investment, and most of the additional direct investment – from traditional investors in the USA, for instance, and from newcomers from East Asia – passed Germany by. Given Germany's general openness for foreign investors, its central position in Europe, its large domestic market and the massive subsidies available for development of the Eastern regions, above-average investment by foreign companies was to be expected. The fact that this did not happen suggests locational deficiencies. The formation of new companies abroad means that competitive concentrations of domestic and foreign companies, scientific institutions and the like that could compete with German locations could develop in modern industries and R&D areas. This could jeopardise Germany's base for earning high incomes in the future.

Conclusion

As a production location, Germany has done fairly well so far in international competition for direct investment. The proposition that globalisation has led to an exodus of German industry and hence has harmed German locations is not generally borne out by the facts. In particular, it is not true of the increasing transfer of production to CEECs, which offers more opportunities than risks. On balance, German locations have benefited from globalisation.

The weaknesses of Germany as a business location are evident mainly in the low level of new commitments by international investors. In addition, developments in German direct investment in Western Europe may signal an end to the general complementarity of such investment with German production and employment. Investment in neighbouring Western countries may increasingly be at the expense of domestic investment. A full analysis of the reciprocal effects of globalisation and domestic economic development is hampered by statistical deficiencies. Globalisation processes are less thoroughly reflected in the statistics than their macro-economic importance warrants.¹⁸ In general, transfers of production to developed countries and the "gap" in foreign investment in Germany can at most be seen as partial indicators of Germany's weaknesses as a location, but not as their ultimate cause. An employment-oriented locational policy should take account of the increased international mobility of capital; simply diverting new geographically mobile investment to Germany would not, however, bring any fundamental improvement in the employment situation.

¹⁴ NIW et al., *op. cit.*

¹⁵ OECD: *The Performance of Foreign Affiliates in OECD Countries*, Paris 1994; Office of Technology Assessment: *Multinationals and the US Technology Base*, Washington 1994.

¹⁶ US Department of Commerce: *US Direct Investment Abroad*, diskettes.

¹⁷ See C. Dörrenbächer and M. Wortmann, *op. cit.*

¹⁸ Further data on the performance of foreign-controlled companies in Germany and "German" companies abroad and their domestic parent companies would provide a useful basis for a detailed analysis. Data on value added, R&D activities, wages and salaries, and export/import intensity come to mind in this context. By contrast, details from the present statistics on direct investment flows and the legal form of foreign investment could be dispensed with.