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**Article — Digitized Version**

## German exports and economic development

Intereconomics

*Suggested Citation:* Sohn, Reinhold (1976) : German exports and economic development, Intereconomics, ISSN 0020-5346, Verlag Weltarchiv, Hamburg, Vol. 11, Iss. 11, pp. 313-317, <https://doi.org/10.1007/BF02929750>

This Version is available at:

<https://hdl.handle.net/10419/139426>

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to 10.2 p.c. and 11.1 p.c. Similarly, whereas the share of EFTA in Pakistan's total imports declined from 20.1 p.c. in 1962 to 13 p.c. in 1970, the relative share of EEC increased from 15.7 p.c. to almost 18 p.c. during the same period. The share of Asia also exhibited an upward tendency from 21 p.c. in 1962 to 24 p.c. in 1970. The year 1972 shows a considerable shift of Pakistan's foreign trade in favour of Asia. Whereas 32 p.c. of its imports came from Asia, over 53 p.c. of its exports went to the same region.

The imports of socialist countries from Pakistan which constituted 2.4 p.c. of the country's total exports in the fiscal year 1962–63 rose to 8.4 p.c. in 1969–70, indicating another dimension in the diversification efforts of Pakistan's foreign trade policy<sup>4</sup>. Within the socialist group of countries, USSR and China were the major customers. But this considerable quantitative expansion of exports during the late 1960s to socialist countries and Asia did not bring about any appreciable reduction in the export concentration of Pakistan as their percentage shares in the exports of Pakistan remained relatively minor.

Contrary to the empirical evidence elsewhere in the world, Pakistan's imports were geographically more concentrated than its exports<sup>5</sup>. This contradictory tendency is explained by the fact that a

major part of its imports was financed through foreign aid of a tied character. Consequently, in the fiscal year 1967–68, for instance, about 64 p.c. of Pakistan's total imports were coming from only four countries, e.g. the USA, the UK, the Federal Republic of Germany and Japan<sup>6</sup>. This situation has partially meant negative implications for export diversification efforts to raise the level of foreign earnings.

Our short analysis indicates that exports of Pakistan have been a weak sector in its development efforts during the period under review. The resulting balance of trade deficits have been financed by foreign aid with negative implications for other sectors of the economy. Efforts at diversification in terms of commodities have remained confined to the jute and cotton textiles with the result that demand and price fluctuations rendered export earnings always uncertain. Even regional diversification efforts have attained very limited success and eventually the efforts to abridge the gap in the commodity concentration of exports and imports so as to overcome underdevelopment have been very limited.

<sup>4</sup> *Ibid.*

<sup>5</sup> A. O. Hirschman, *National Power and the Structure of Foreign Trade*, Berkeley, California, 1945, and Michael Michaely, *op. cit.*

<sup>6</sup> Central Statistical Office, Pakistan, *Foreign Trade Statistics of Pakistan*, Karachi 1964, and various issues of *Monthly Statistical Bulletin*.

## German Exports and Economic Development

by Dr Reinhold Sohns, Hamburg \*

**The influence of the export trade on the economic development since 1974 shows how greatly economic activities in the Federal Republic of Germany depend upon the situation abroad. In this context the author analyses the regional distribution and the goods structure of German exports and discusses their medium-term prospects.**

In the past few years the export trade has had a particularly strong effect on the economic development in the Federal Republic. In 1974 when the real gross investment in fixed assets contracted by 8.2 p.c. compared with the preceding year and private consumption (+ 0.2 p.c.) was stagnant it was only by the unusually large increase of the export volume by 13.3 p.c. that a decline of real GNP (+ 0.4 p.c.) was prevented and unemployment was kept down to 2.6 p.c. In 1975 in contrast the volume of exports fell by 8.9 p.c. This led to a 4.8 p.c. decline of gross investment in fixed

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assets, a contraction of real GNP by 3.4 p.c. and an unemployment rate (4.7 p.c.) not seen since the mid-fifties.

In 1976 the Federal Republic's economic recovery is once again buoyed by the foreign demand. The volume (at 1970 prices) of orders received from abroad has risen strongly since the middle of 1975. At mid-1976 it was — adjusted for seasonal variation — about 46 p.c. higher than in 1970. Home market orders on the other hand stagnate after a moderate revival in the autumn of 1975. At the middle of 1976 they showed hardly any in-

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crease over 1970; in the investment goods industries the 1970 level had not even been regained<sup>1</sup>.

The economic dependence of a country on the outside world is often measured by the export ratio, the quotient of export volume and real GNP. In 1975 it was about 36 p.c. The corresponding figures for private consumption, public sector consumption and gross investments were 60, 15 and 23 p.c. These figures add up to more than 100 p.c. because the final demand components also contain imports which are subtracted to arrive at the national product. This makes interpretation of the figures difficult. The proportion of export volume to total real final demand as represented by the sum of real GNP and import volume is a yardstick of the dependence of the economic situation at home upon demand from abroad which it is easier to interpret. In 1975 26.7 p.c. of the total final demand was generated by the outside world, 45 p.c. by private households (at home) for consumption purposes, 11.3 p.c. by the state for public consumption and 17 p.c. by investments in the public and corporate sectors. As a component of total final demand the export trade is thus second only to private consumption.

It is no surprise therefore that fluctuations of the foreign demand have a considerable impact on the economic development in the Federal Republic.

### Regional Distribution of German Exports

In 1975 69 p.c. of the goods exports went to western industrialized countries and 43.6 p.c. to EC countries alone. OPEC and state trading countries absorbed 8 p.c. each and other developing countries 15 p.c.<sup>2</sup>. The decline of exports in 1975 hit the deliveries to western industrialized countries (-8.8 p.c.) hardest; the exports to non-EC countries (-12.1 p.c.; EC countries: -6.7 p.c.) suffered in particular. The deliveries to OPEC

(+59.8 p.c.) and state trading countries (+9.6 p.c.) on the other hand increased strongly. The value of the goods shipments to developing countries other than OPEC states fell off by 5.7 p.c.

The market recovery of goods exports in the first half of 1976 compared with the corresponding period of the preceding year (+13.7 p.c.) also showed marked regional variations: The deliveries to EC countries (+22.4 p.c.) advanced most. The exports to OPEC countries rose by 21.6 p.c., those to western industrialized countries other than EC countries by 9.9 p.c. The growth of deliveries to state trading countries (+2.8 p.c.) seems to be slowing down, and the exports to developing countries (apart from the OPEC) continue to contract (-2.2 p.c.). The absorptive capacity of the latter's markets is limited by their lack of foreign currencies which was certainly aggravated by the world recession in 1975.

The regional distribution of German goods exports suggests that the export fluctuations of the last 20 months were the result predominantly of the economic situation in the western industrialized countries.

This assumption is borne out by Table 1: the industrial production, real GNP and import volume of all six major trading partners of the Federal Republic - who in 1975 absorbed 47 p.c. of all German goods exports - fell off drastically in this "world recession year" and are rising strongly in 1976.

### The Goods Structure of the German Export Trade

The world recession of 1975 affected exports of products of the basic and producer goods indus-

<sup>1</sup> Cf. Deutsche Bundesbank, Beiheft 4, Saisonbereinigte Wirtschaftszahlen (Seasonally adjusted economic data).

<sup>2</sup> Cf. Deutsche Bundesbank, Series 3, Zahlungsbilanzstatistik (Balance of payments statistics).

**Table 1**  
**Changes in the Industrial Production, Real GNP and Import Volume of Selected Trading Partners**  
(in p.c. compared with the preceding year)

Country	1974			1975			1976 <sup>2</sup>		
	Industrial production	GNP	Import volume	Industrial production	GNP	Import volume	Industrial production	GNP	Import volume
France (11.7 p.c.) <sup>1</sup>	+ 2.7	+ 3.9	+ 3.3	- 7.3	- 2.4	- 10.0	+ 9.5	+ 6.3	+ 14.3
Netherlands (10.0 p.c.)	+ 2.5	+ 3.3	+ 3.8	- 5.0	- 1.0	- 4.2	+ 8.0	+ 4.0	+ 8.8
Belgium-Luxbg. (7.6 p.c.)	+ 3.4	+ 4.0	+ 4.1	- 10.0	- 1.4	- 5.7	+ 10.0	+ 3.8	+ 10.5
Italy (7.3 p.c.)	+ 4.5	+ 3.4	- 4.5	- 9.8	- 3.7	- 12.4	+ 3.5	+ 1.5	+ 7.8
USA (5.9 p.c.)	- 0.6	- 1.8	- 3.4	- 8.9	- 2.0	- 11.5	+ 10.0	+ 7.0	+ 20.3
Great Britain (4.6 p.c.)	- 2.9	- 0.1	+ 0.4	- 4.8	- 1.6	- 6.7	+ 2.0	+ 2.3	+ 8.0

<sup>1</sup> In brackets: Share of country in German exports of goods in 1975. <sup>2</sup> Estimated.  
Source: Compiled from data in: OECD, Economic Outlook, July 1976.

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tries (–17.6 p.c.) and consumer goods industries (–6.5 p.c.) most. These categories accounted for about 38 p.c. of the total of goods exports in 1975 which went down by a nominal 3.9 p.c. The exports of products of the investment goods industries (export share: 53 p.c.) in contrast increased by a nominal 4.1 p.c.<sup>3</sup> An analysis of the changes inside these three product groups is instructive.

The most important *raw materials, basic products and producer goods* exported by the Federal Republic are: colliery products, non-ferrous metals and semis, iron and steel, wire mill and cold rolling mill products, and chemical products. The exports of these goods which in 1975 accounted for about 25 p.c. of all goods exports declined in that year on average (weighted according to their share of total exports) by 17.5 p.c. This figure reflects the drop in production and the de-stocking due to the recession in the western industrialized countries.

The generally favourable course of exports in 1976 is not shown by these product groups throughout. A comparison of the January-July exports in 1976 with the corresponding period of the preceding year shows "chemical products" (share of total goods exports in 1975: 13 p.c.) up by 24.4 p.c. and "non-ferrous metals . . ." (share of exports: 2 p.c.) 26.6 p.c. higher. The exports of the other three product groups mentioned (combined export share: 10 p.c.) declined by between 15.6 p.c. (coal) and 26 p.c. (iron and steel). A further cyclical upturn will be needed in 1976/77 to bring about a turn-round in the exports of these groups.

Among the "*products of the consumer goods industries*" the three most important groups are: "plastics materials" (export share in 1975: 1.6 p.c.),

"textiles" (export share: 3.5 p.c.) and "clothing" (export share: 1 p.c.). Exports of the first two groups declined by 15.3 p.c. and 10.2 p.c. compared with 1974 while the "clothing" exports increased by 10.6 p.c. Especially strong export gains were surprisingly recorded in 1975 in the "textiles" and "clothing" trade with western industrialized countries (significant exceptions: Italy, USA, Switzerland). In the first seven months of 1976 the exports of these three groups also increased quite substantially over the preceding year – by between 22 p.c. (plastics) and 32 p.c. (clothing).

The largest export groups among the "*investment goods industries*" are mechanical engineering products (share of 1975 exports: 20 p.c.), "road vehicles" (13 p.c.) and electrotechnical products (10 p.c.). In 1975 these three groups together accounted for 43 p.c. of all goods exports; in the same year their exports increased on a weighted average by a nominal 6.2 p.c. In these groups the world-wide cyclical recovery has also been attended by accelerated growth of exports; in January-July 1976 the increase over the corresponding period of the preceding year amounted to 18 p.c. on a weighted average.

The impact of the 1975 recession on the export trade sub-divided by major product groups and countries is shown in Table 2.

The product groups included in Table 2 accounted for 64 p.c. and the selected countries for 53 p.c. of all goods exports in 1975. The Soviet Union (ranking 10th amongst the export customers of the Federal Republic) is by far the most important destination among the state trading coun-

<sup>3</sup> Cf. Statistisches Bundesamt, Außenhandel (Foreign Trade), Series 1, July 1976.

**Table 2**  
**Changes in the Exports of Selected Product Groups by Countries in 1975**

(in p.c. compared with the preceding year)

Product Groups	All countries	France (11.7 p.c.) <sup>2</sup>	Netherlands (10.0 p.c.) <sup>2</sup>	Belgium-Luxemb. (7.6 p.c.)	Italy (7.3 p.c.)	USA (5.9 p.c.)	Great Britain (4.6 p.c.)	Soviet Union (3.1 p.c.)	Iran (2.3 p.c.)
1. Iron and steel (7.5 p.c.) <sup>1</sup>	– 15.7	– 4.9 <sup>3</sup> (8)	+ 35.3 <sup>3</sup> (8)	– 19.7 (5)	– 42.5 (6)	– 46.8 (6)	+ 25.6 (8)	+ 87.1 (31)	+ 61.7 (7)
2. Chemical products (12.5 p.c.) <sup>1</sup>	– 17.9	– 14.8 (12)	– 27.2 (11)	– 18.6 (11)	– 23.4 (15)	– 19.8 (9)	– 29.7 (12)	+ 14.1 (8)	+ 3.1 (8)
3. Non-ferrous metals and semis (1.8 p.c.)	– 33.1	– 34.2 (2)	– 24.2 (2)	– 35.6 (2)	– 50.9 (2)	– 34.7 (2)	– 36.1 (3)	– 11.6 (0)	+ 20.7 (2)
4. Mechanical engineering products (19.5 p.c.)	+ 3.2	– 3.2 (17)	– 0.3 (11)	+ 0.7 (12)	– 19.1 (15)	– 0.9 (17)	– 4.7 (18)	+ 38.0 (34)	+ 130 (30)
5. Road vehicles (13.4 p.c.)	+ 8.1	+ 1.4 (9)	+ 13.6 (7)	+ 6.2 (19)	+ 35.4 (10)	– 30.1 (36)	– 2.4 (11)	+ 1,625 (8)	+ 114 (26)
6. Electrotechnical products (9.7 p.c.)	+ 0.1	– 7.8 (8)	– 4.2 (10)	– 1.5 (10)	– 19.5 (10)	+ 15.3 (7)	– 15.1 (8)	+ 31.6 (5)	+ 99.4 (12)

<sup>1</sup> The figures in brackets show the product groups' share of the goods exports of the Federal Republic in 1975. <sup>2</sup> The figures in brackets show the countries' share of the goods exports from the Federal Republic in 1975. <sup>3</sup> The figures in brackets show the product groups' share of the German exports to the country concerned (in p.c.).

Source: Own calculations based on: Statistisches Bundesamt, Außenhandel, Series 1, July 1976, Series 7, Special contributions, Foreign trade by countries and commodity groups . . ., 1975.

tries; Iran (in 11th place) is the most important OPEC country.

Is there a common characteristic of the impact of the "world recession" in 1975 on the commodity structure of the German export trade?

Starting from the assumption that product groups 1, 2 and 3 in Table 2 are made up chiefly of intermediate products while product groups 4, 5 and 6 comprise in the main durable consumer goods and investment goods, it may be stated by way of simplification that: The world recession of 1975 has affected the exports of durable consumer goods and investment goods to a lesser extent than the exports of intermediate products. This statement can be checked against the statistics showing the export volume of products of the manufacturing industry<sup>4</sup>.

These statistics classify the merchandise — according to the degree of industrial treatment which it has undergone — as raw materials (share in the 1975 export volume: 2.3 p.c.), intermediate products (export share: 7.1 p.c.), semi-finished manufactures (export share: 18.9 p.c.) and finished manufactures (export share: 66.1 p.c.). The group of finished manufactures consists mainly of goods which have finally passed out of the production process for purposes of consumption or investment<sup>5</sup>.

The volume decline of exports in 1975 compared with 1974 was much greater in raw materials (– 9.8 p.c., exports to EC countries alone: – 10.9 p.c.), intermediate products (– 19 p.c., EC countries: – 16.3 p.c.) and semi-manufactures (– 21 p.c., EC countries: – 20.8 p.c.) than it was in finished manufactures (– 6.6 p.c., EC countries: – 10.7 p.c.). This statement evidently applies also to the EC countries which have all been hit by the "world recession". This is corroboration of the thesis about the influence of the 1975 recession on the goods structure of the German export trade the reasons for which may be summed up as follows:

The German exporters were able to offset shortfalls in consumer and investment goods by deliveries to state trading countries and OPEC states (cf. the figures for the Soviet Union and Iran in Table 2).

The 1975 recession was in the nature of a relatively brief blockage of production. It was more effective in reducing the flow of orders for basic materials and non-durable producer goods and

causing stocks of such goods to be run down than in moderating the demand for investment and consumer goods. This argument is borne out by the information in Table 1: The rate of decline of the industrial production of the major trading partners of the Federal Republic was several times that of the fall of their real GNP. In France, the Netherlands, Belgium, Great Britain and Austria which in 1975 absorbed 38.3 p.c. of all German goods exports the industrial production contracted more sharply even than the gross investment in fixed assets.

Let us finally look at the prospective development of the German export trade over the medium term.

#### Medium-term Prospects for German Exports

A forecast of the prospective development of the German export trade over the medium term must take at least two factors into consideration:

- (1) the competitive price position of German industry in the world,
- (2) the probable growth of the import volume of the major customer countries for German export goods.

The competitiveness of the prices of the German export industry depends on the one hand upon the development of the external value of the DM compared with the currencies of the more important industrialized countries and on the other upon the different rates at which foreign and domestic prices advance. The differential shall be indicated in terms of the unit wage costs for various national economies: From data and calculations of the *Deutsche Bundesbank* and the Ifo Institute it can be deduced<sup>6</sup> that the external value of the DM compared with ten important industrialized countries (USA, Great Britain, France, Netherlands, Belgium, Italy, Austria, Switzerland, Sweden, Japan, measured by an average weighted according to the countries' share of the exports from the Federal Republic) remained constant in 1975 and will probably rise by about 4 p.c. in 1976 while the rise of wage unit costs abroad is more pronounced than in the Federal Republic. In 1975 the differential compared with the weighted average of the ten countries mentioned was 8 p.c. For 1976 it is expected to be 6 p.c.

If the change in the external value of the DM is corrected for the differential between the wage unit rates, the German competitive position is seen to have improved in 1975, compared with the average of the mentioned countries, by 8 p.c. (which is the product of a 0 p.c. average change in the

<sup>4</sup> Cf. Statistisches Bundesamt, Außenhandel (Foreign Trade). Series 1, July 1976.

<sup>5</sup> Cf. Statistisches Bundesamt, Der Außenhandel (Foreign Trade), Special contributions, Heft 16, Warengliederungen der Außenhandelsstatistik (Goods classifications in the foreign trade statistics), p. 16, 1961.

<sup>6</sup> Cf. Ifo-Schnelldienst, August 24, 1976, p. 19.

external value of the DM and an 8 p.c. faster relative advance of wage unit costs abroad than in the Federal Republic). For 1976 the improvement of the German position against the international competition is estimated at 2 p.c.

On the assumption that the present favourable position of the Federal Republic in international competition as regards prices and quality will endure during the coming years, it seems reasonable to expect the German exporters at least to maintain their share of the developing foreign markets.

The OECD has presented a forecast of the economic development in member countries until 1980<sup>7</sup>. The ten major customer countries for German export goods only will be considered here: France (share of 1975 exports: 11.7 p.c.), the Netherlands (10.0 p.c.), Belgium-Luxembourg (7.6 p.c.), Italy (7.3 p.c.), USA (5.9 p.c.), Great Britain (4.6 p.c.), Austria (4.4 p.c.), Switzerland (4.3 p.c.), Sweden (3.7 p.c.) and Denmark (2.1 p.c.). Together they absorbed 62 p.c. of all German goods exported in 1975. The average real GNP growth rates forecast for these countries for the period from 1975 to 1980 are shown in Table 3.

**Table 3**  
**Estimated Growth of Real GNP, the Import Elasticities and the Import Volume in 1975–1980 by Countries**

Country	Average annual real growth of GNP in 1975-1980 (in p.c.)	Import elasticity	Annual average growth of the import volume in 1975-1980 (in p.c.)
France	6	1.9	11.4 (6x1.9)
Netherlands	4.5	1.8	8.1
Belgium	5	2.0	10.0
Italy	4.5	1.7	7.7
USA	5.8	1.6	9.3
Great Britain	3.5	1.3	4.6
Austria	5	1.8	9.0
Switzerland	3	1.5	4.5
Sweden	3.5	1.9	6.7
Denmark	4	1.6	6.4

Source: Compiled from data in: OECD, Economic Outlook, July 1976.

This forecast is based on the following assumptions:

□ Private consumption in the mentioned industrialized countries will revive fairly quickly. A slackening uptrend of prices and increasing job security will lead to a lowering of the savings ratio and thus — as incomes increase — to an expanding demand for consumer goods. There exist, besides, demand arrears for high-value durable consumer goods.

<sup>7</sup> OECD, Economic Outlook 1976.

□ The investment propensity will also increase. Inventories have to be replenished, and this is encouraged by low interest rates. Replacement investments cannot be deferred indefinitely. Investments for purposes of capacity expansion however cannot be expected to increase perceptibly until the existing capacities are utilized much more fully, there is greater certainty about the strength of the expansionary tendencies and the profit position shows a lasting improvement.

The OECD study also contains quantified medium-term assumptions concerning the import elasticity of the ten countries (cf. Table 3). The import elasticity of a country is the ratio of the percentage change in the volume of imports to the percentage change of real GNP. It is striking that the figures given for these import elasticities for 1975–1980 are lower than those calculated for recent years. Crucial was in this respect the assumption that full employment will be unattainable in most of the countries before 1978 and this has a damping effect on their import requirements.

An estimate of the annual growth of the import volume can be obtained by multiplying the GNP growth rate with the import elasticity of a country (cf. Table 3).

If it is assumed that the share of deliveries from the Federal Republic will remain constant in terms of the total imports of these ten partner countries, it follows that the German exports to these countries will advance at the same rate as their import volume. On an average (weighted according to the share of these countries in the exports of the Federal Republic) the countries considered will attain an import volume growth rate of about 8.4 p.c. annually in 1975–1980. This is the rate at which, on the mentioned assumptions, the German exports to this group of countries will increase in the medium term.

If the assumptions concerning the international development of the demand for consumer and investment goods prove correct, the German competitive position on grounds of prices and quality will remain as favourable in the medium-term future as it has been in recent years, especially for consumer and investment goods. The estimated figures for the growth of German goods exports may well indicate the lower limit of the prospective advance.

In putting the growth of the German export volume between 1975 and 1980 at an estimated average rate of 8 p.c. a year the OECD may be making allowance for the probability of a slower expansion of the markets in state trading and developing countries.