

CHAPTER XIV

INDUSTRY

1. MAIN DEVELOPMENTS

The trends which had prevailed in industry in the two preceding years underwent a significant change in 1978: the relatively rapid rise in industrial exports¹ slackened, while production for the domestic market accelerated. Overseas industrial sales grew at a real rate of about 9 percent in 1978, after gains of 19 percent in 1977 and 30 percent in 1976 – the year when the turnaround in exports began. After inching up by a mere 1–2 percent for two years, production for the domestic market accelerated this year by more than 6 percent (see Figure XIV-1). Total industrial production (excluding diamonds) expanded by 7 percent, as opposed to 4 percent in each of the five preceding years.

The recovery of domestic demand for industrial products, which was one of the causes for the slowdown in the export growth rate, was part of the general expansion of domestic demand during 1978. The livelier demand for consumer goods, especially durables, led to a tripling of the rate of increase of production for private consumption – from about 3 percent during the three preceding years to 9 percent in 1978. On the other hand, the change in the composition of consumer demand, i.e. the rise in consumption of durables, resulted in a bigger import since the import component of durables is large. In addition to durables,² healthy output gains were scored in the textile and clothing industries, though not necessarily in subbranches producing principally for export (see Table XIV-2).

Branches supplying inputs to construction and investment goods also responded to the conspicuous change in demand which began at the end of 1977: after declining for two years, the output of building materials began to move ahead in 1978, though at a rather slow rate. In investment goods growth was much faster, so that the total product originating in investment rose by about 5 percent. In goods for public consumption the uptrend

¹ Industrial production excluding diamonds. Because of the strong yearly fluctuations in diamond production, inventories, export, import, and prices, and because of the low statistical reliability of the data, and even more, the special factors influencing operations in this industry, most of the economic analysis and general data in this chapter relate to industry exclusive of diamonds.

² Carpentry and upholstery, commercial domestic machinery, household and cooking equipment, radio and television sets, etc.

continued for the third straight year at a rate of about 8 percent. It should be remembered, however, that these branches produce for the overseas market as well, and that the growth rate also reflects domestic purchases by the defense establishment and noncivilian exports. Exports of products in this category depend, among other things, on the development of public sector demand in Israel. The decline in domestic demand for defense products made possible a steep rise in their export in 1976, a trend which continued during the next two years.

It is reasonable to assume that, following the sharp rise in import prices after the reform of October, 1977, there was a significant expansion in the production of import substitutes, but the existing data do not enable us to examine this. At any rate, there was notable growth this year in a number of subbranches which also produce import substitutes: the manufacture of commercial and domestic machinery recorded a real advance of about 70 percent; basic iron and steel – 35 percent; precision and fine instruments – 20 percent; communications equipment – 25 percent; electric household and cooking equipment – 20 percent; and radio and television sets – 9 percent.

The slowdown in industrial exports,³ following two years of significant advances, should be viewed against the background of several major factors: the resumption of economic growth and resurgence of domestic demand since the end of 1977; the growing difficulty in obtaining skilled workers at all levels in many areas; and uncertainty regarding the expected profitability of exports, after implementation of the new exchange rate policy in October, 1977. Nevertheless, it should be noted that exports grew at a significant rate (more than 9 percent) despite these limitations, and despite other bottlenecks in the supply of productive factors, such as specific raw materials (e.g. synthetic fibers from the Far East). This can be attributed to the continuing influence of changes in preceding years, mainly in investments and the composition of capital stock. These changes, which were reflected in a rapid expansion of capital in the exporting industries and enterprises,⁴ increased export production capacity and made possible the continued growth of exports together with a conspicuous increase in production for the domestic market. This development took place with only a small increase in the labor input in all industry so that overall factor productivity grew by more than 4 percent, after holding virtually steady for five years (an average rise of only one percent). Labor productivity, i.e. output per Monday, also rose this year to a significant extent, by about 7 percent (see Tables XIV-1 and XIV-3). As mentioned, these changes in productivity reflected a greater utilization than in previous years of production capacity which had been building up in

³ See also Chapter V, "Exports."

⁴ For a more detailed explanation see Bank of Israel, *Annual Report 1977*, Chapter XV, "Industry", pp. 341-45.

TABLE XIV-1
INDICATORS OF INDUSTRIAL DEVELOPMENT, 1961-78
(percent)

	Annual average				Annual increase					
	1961-1965	1966-1967	1968-1972	1973-1978	1973	1974	1975	1976	1977	1978
Total industrial production ^a	13.4	-0.8	15.4	4.4	4.5	5.1	3.1	5.1	4.3	6.5
Industrial production, excluding diamonds	..	-0.9	15.4	4.9	4.3	5.4	3.2	4.7	4.3	7.2
Revenue at current prices ^a	20.5	3.0	23.3	41.7	26.2	52.7	46.9	37.3	45.7	75.5
Number of workers	7.6	-3.7	8.0	1.8	0.9	2.8	0.4	2.5	2.3	1.8
Man-days worked ^a	..	-5.5	9.4	-0.1	-4.0	1.3	0.4	2.8	-1.1	0.2
Real gross investment	6.0	-23.9	31.5	-2.2	-4.3	1.4	17.0	-8.0	-17.0	15.0
Real gross capital stock ^b	11.0	6.4	7.7	7.6	8.7	8.0	8.2	7.4	5.9	5.1
Output per employed ^c	9.8	3.0	6.9	2.6	3.6	2.2	2.7	2.5	2.0	4.6
Output per man-day worked	..	5.0	5.4	4.6	8.9	3.8	2.7	2.2	5.5	6.3
Output per unit of capital ^c	2.2	-6.8	7.1	-3.0	-3.9	-2.7	-4.7	-2.1	-1.5	1.3
Change in factor productivity ^d	4.2 ^e	0.8	6.8	1.0	2.7	0.7	-0.9	0.2	2.2	4.1
Domestic wholesale prices	5.0	3.0	6.3	36.2	19.1	51.5	40.8	30.9	38.6	53.2
Revenue per unit of output	6.3	3.8	7.1	35.7	20.8	45.3	42.5	30.6	39.7	64.8
Real industrial exports (excl. diamonds)	13.7	12.5	16.6	11.8	-1.5	12.3	-1.0	30.4	18.8	8.9
Total payroll outlay	..	5.0	18.7	38.2	22.1	42.6	41.6	40.5	44.4	64.8
Rate of return on capital ^f	..	14	20	17	17	19	17	16	18	17

^a The Central Bureau of Statistics data have been adjusted to reflect actual production per unit of actual labor input, rather than per possible man-day worked (see explanation in the note to Table XIV-3).

^b At the beginning of the year.

^c Output here refers to industrial production.

^d Defined as the difference between the change in output and that in the combined input of labor and capital, weight 56 percent labor (actual man-days worked) and 44 percent capital.

^e The change in labor input for this period is based on the change in the number of workers.

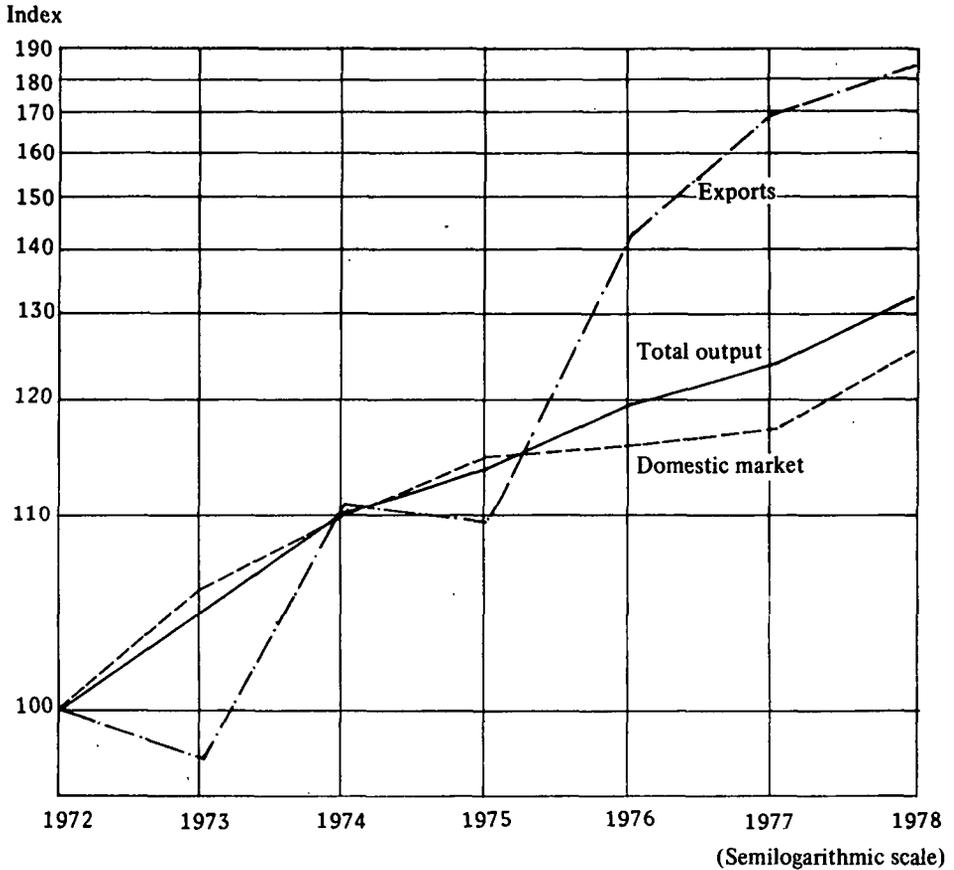
^f The return consists of profits, interest, and rent (in other words, added value which does not constitute return to labor); capital includes fixed assets and finished goods and raw material stocks. The rate of return is gross, i.e. it includes depreciation.

SOURCE: Central Bureau of Statistics and Bank of Israel.

FIGURE XIV-1

QUANTITATIVE GROWTH OF INDUSTRIAL SALES (EXCL. DIAMONDS)
TO DOMESTIC AND FOREIGN MARKETS, 1972-78

(Indexes: 1972 = 100)



export enterprises and remained partly idle in enterprises producing for the domestic market.⁵

⁵ The discussion of labor input, productivity, and wages in this chapter is based on data from Central Bureau of Statistics industrial indexes. The data for 1978 differ significantly from the manpower survey data for the same year, which show a 3.2 percent rise in labor input in industry (number of hours worked). Use of the manpower survey figure would significantly lower overall and labor productivity. There is also a difference between these two sources in wage data, the growth in hourly wages being about 4 percent lower according to the manpower surveys.

Despite the superficial resemblance in industrial development between the period of recovery from the economic slump in 1968 and that in 1978, the growth rates and changes in efficiency were totally different for the two periods, just as the recession of 1966-67 was more severe than that of 1975-77 in industry. It should be especially noted that during the present recovery, factor productivity (i.e. the change in product which does not stem from the measured change in labor and capital inputs) grew by only 4 percent, a much lower rate than the average for the entire boom period of 1968-72 (about 7 percent). There clearly remains a significant amount of unutilized capital in industry as a result of a number of developments: part of the investments in preceding years was made in enterprises and branches producing for the domestic market, where demand has not grown, such as construction materials. Another part of this production capacity could not be further utilized due to a shortage of various categories of workers, such as unskilled women for the electricity and electronics branches, or technicians, at various levels. This problem became more acute in 1978, a fact which is reflected in the number of requests for industrial workers which were not filled through the labor exchanges; they grew by 47 percent in the past year, after remaining unchanged in 1977. This figure does not include needed workers who were not requested at all through the exchanges because of the lack of response to earlier requests. Unfilled requests for unskilled workers increased by 32 percent during the past year.

An additional share of the investments was for replacing old, but still usable equipment, and apparently led to a more rapid retirement of existing industrial capital. Since most enterprises cannot operate more than one shift because of labor limitations many investments were made to expand existing production lines. This overinvestment took on significant proportions, as can be seen from the estimates of productivity and output per unit of capital stock (see Table XIV-1). It can be linked to the encouragement given to industrial investments, by way of grants and partially-linked development loans on easy terms, while the rapid inflation, which has grown sharper in recent years, is reflected in significantly mounting subsidies. It should be recalled that an investor in an export enterprise in a development area hardly needs any equity capital to carry out his investment. It is hard to expect higher efficiency and industrial productivity under these subsidy conditions and the substantial protection still given to domestic production.

The shortage of workers was apparently felt to a much greater extent in some of the branches which manufacture export goods; in most of them the hourly wage even rose faster than in other branches (see Table XIV-3). The increase in daily wage for the period 1976-78 was higher than the sector average in metals and electronics, transport equipment, rubber and plastics, and miscellaneous industries (objets d'art, fine instruments, optics, etc.), with an average increase of 53 percent per year, compared to 44 percent in other branches. In 1978 itself the wage increase in these branches reached an average of

TABLE XIV-2

DERIVED INDUSTRIAL PRODUCT BY FINAL USE,^a 1968-78
(percent)

	Weight of uses in derived product			Quantitative annual increase			
	Average 1968-72 ^b	Average 1973-75	1978	1975	1976	1977	1978
Private consumption	36.4	28.7	29.2	2.5	4.0	1.9	9.0
Public consumption	15.4	17.1	13.1	-4.1	-7.3	-4.0	-1.7
Investment in fixed assets	18.1	17.8	12.0	2.8	-15.8	-11.8	5.3
Total domestic uses	69.9	63.6	54.3	0.2	-4.0	-3.0	5.4
Exports to administered areas	2.2	2.9	3.7	15.2	11.5	22.7	-3.8
Exports to rest of world	27.9	33.5	42.0	1.5	22.2	14.1	3.4
Total exports	30.1	36.4	45.7	2.6	21.3	14.8	2.8
Total final uses	100.0	100.0	100.0	1.4	4.9	4.5	4.2

^a Central Bureau of Statistics data on direct final uses, except for investment in inventories, and Bank of Israel calculations based on the input-output table for 1972/73, for the derived product according to final uses.

^b The average for these years is based on the input-output table for 1968/69.

TABLE XIV-3

ANNUAL CHANGE^a IN PRODUCTION, EMPLOYMENT, AND WAGES, 1973-78
(percent)

	Production				Actual work days				Daily wage			
	1973- 1975	1976- 1978	Annual increase		1973- 1975	1976- 1978	Annual increase		1973- 1975	1976- 1978	Annual increase	
			1977	1978			1977	1978			1977	1978
Mining and quarrying	4	-4	-1	10	5	-2	3	-4	40	39	44	59
Food, beverages, tobacco	5	8	5	9	0	4	2	-1	35	47	43	63
Textiles	3	6	7	9	2	-1	-3	-1	32	46	40	62
Clothing	1	7	5	10	-4	3	2	-2	30	46	38	61
Wood and wood products	-2	5	-3	13	0	1	-3	2	34	43	39	59
Paper and paper products	3	6	9	8	4	-3	-6	-1	40	44	39	61
Printing and publishing	1	11	14	15	0	1	3	-1	29	49	42	62
Leather and leather goods	1	5	6	6	1	-2	-3	-13	34	47	39	64
Rubber and plastics	-1	7	6	9	1	-1	-4	-2	35	52	48	71
Chemicals and petroleum	6	7	7	6	15	4	5	5	37	46	41	55
Nonmetallic minerals	1	-2	-9	0	0	-3	-10	-2	37	46	43	64
Basic metals	0	3	2	10	2	-3	-7	-2	34	51	49	68
Metal products	4	3	0	8	3	0	-3	1	36	49	47	63
Machinery	5	9	11	19	0	-1	-6	8	33	52	56	61
Electrical equipment	13	7	0	11	5	-2	-3	2	33	59	50	82
Transport equipment	13	6	6	1	7	-2	-7	3	42	56	67	52
Miscellaneous	5	0	9	-14	2	-1	4	-9	36	54	42	71
Total, excluding diamonds	4.3	5.4	4.3	7.2	-0.7	0.1	-1.6	0.1	37	49	46	65
Diamonds	2	2	3	-18	-7	11	15	7	31	43	46	46
Total, all industry	4.2	5.3	4.3	6.5	-0.9	0.6	-1.1	0.2	36	49	46	64

^a The data on production, labor, and wages for 1978 used to compute this table differ significantly from the data published by the Central Bureau of Statistics. The figures given here reflect the changes which actually took place this year, while the Central Bureau of Statistics data relate to the possible changes in production and labor input assuming an equal number of days of work each year. In actual fact, there were only 305 work days in 1978, compared with 303 in 1977 and 309 in 1976. The Central Bureau of Statistics data have been adjusted here in order to reflect changes that actually took place in output and labor. The changes for previous years were also corrected, taking into account the fact that the actual number of work days was 305 in 1974 and 307 in 1975.

67 percent, as against 58 percent in the others. In almost all the branches where wages rose by more than the general average, the export growth rate showed a downward trend in 1978; this may be additional evidence that the shortage of workers constrained the expansion of exports in 1978. But it is also possible that these rises in wages were a lagged response to the substantial growth in exporting and export profitability in these branches in 1976 and 1977.

As a consequence of the stronger domestic demand for products of the electrical, metals, transport, and miscellaneous branches and the relatively large increase in wages in these branches, the prices of these products⁶ rose more than the average (see Table XIV-5). The wholesale price index for the output of these branches went up 61 percent in 1978, compared to 50 percent in the other branches (excluding mining and quarrying and diamonds). The upward trend of these prices accelerated noticeably towards the end of the year; during the first quarter of 1979 they shot up 53 percent (from the corresponding quarter of the preceding year), a rate similar to the annual average growth for all 1978.

The difficulty in obtaining suitable workers and some rise in the labor share of the product during the last three years apparently stimulated investment in machinery and equipment which save on manpower. It is worth noting that a heavier investment in equipment (which does not replace manpower) due to the high subsidization of capital not only does not ease the shortage of workers, but may even make it more acute. Part of the substantial growth in investment in most industrial branches in 1978 may have stemmed from this tendency. At the same time investment in research and development projects also increased, as did investment in enterprises manufacturing new export products. These investments are the fruit of a steep rise in government support for industrial research and development⁷ in recent years; in addition, manufacturers have shown a greater willingness to share the risk, increasing their own financing of a significant portion of research and development expenditures. It has been estimated⁸ that in 1978 industrial

⁶ Significant price increases were recorded for products such as motor vehicles and parts, cutlery and tools, radios, heaters, equipment for electrical installation, etc.

⁷ Government subsidies for industrial research and development exceeded IL 500 million in the past year (approximately half of the total expenditure) and IL 300 million in 1977. In previous years the figures were significantly lower: IL 145 million in 1976 and IL 73 million in 1975. These sums represented about one-quarter of the total expenditures on industrial R&D.

⁸ Based on a sample of exporters involved in research and development which was conducted by the Interdisciplinary Center for Technological Analysis and Prediction of Tel-Aviv University.

exports based on local research and development accounted for close to 30 percent of total industrial exports (excluding diamonds), as against only 6 percent in 1973. Furthermore, self-developed products, some of them import substitutes, are sold on the domestic market. Thus, for example, in the metals branch, where investment grew significantly, there has been a large-scale expansion of enterprises involved in the development and manufacture of products and systems for exploiting solar energy. Today there are about 30 companies active in this field in Israel, and their exports have been expanding rapidly together with their domestic sales.

Developments in production, sales and prices, wages and capital, taxes and subsidies are reflected, in the end, in the rate of return on capital in industry.⁹ This indicator of industrial activity reveals considerable stability for the entire period since 1973: a return on capital of about 17 percent.¹⁰ A glance at Table XIV-1 shows that during the 1968–72 boom period the rate of return in industry was far higher than during the more recent period; at the same time, there is a clear difference between the recent slowdown in economic activity and the slump of 1966–67, when the return fell to only 14 percent. It is possible that the stability in the rate of return, despite the structural change in production, attests to more or less similar return rates for production for the export and the domestic market. In addition, the change in net indirect taxes had no impact in 1978, since in the main it presented the substitution of higher exchange rates for direct export incentives.

In light of the central role played by industrial export in the development of the sector, it would be well to examine and elucidate a number of additional aspects. From 1975 to 1978 industrial exports (excluding diamonds) grew by about 20 percent a year, while their share of output rose from 13 percent to 20 percent (see Table XIV-4). While most branches contributed to the increased share of exports, in some there was an opposite trend: the proportion of output exported declined somewhat toward the end of this period (in the paper and printing, electricity and electronics, leather and leather products, and food branches). In the textile and clothing branches the export share remained stable. These changes reflect the substitution which occurred in 1976 between production for the domestic market and that for export in the various enterprises and branches, with the buoyant demand abroad being met by diverting goods from the domestic to the export market so

⁹ The reference is to the total gross rate of return, i. e. the total return to capital (profits, interest, and rent) divided by the total amount of capital (fixed assets and inventories of finished goods and materials).

¹⁰ Fluctuations of 1–2 percent around the 17 percent average may stem, at least in part, from the provisional nature of the data, and hence most of the errors and omissions in the estimates of production and productive factors are residually accumulated in the return.

TABLE XIV-4

**INDUSTRIAL EXPORTS BY MAIN BRANCH, 1975-78,
AND EXPORT CONCENTRATION, 1976 AND 1978**
(\$ million, at current prices)

	Industrial exports			Export share of branch output ^a (%)				Export concentration (percentage of six largest firms in branch)	
	1976	1977	1978	1975	1976	1977	1978	1976	1978
Mining and quarrying	61	76	78	35	43	60	52	100	100
Food	154	178	211	9	10	9	8	37	54
Textiles	62	64	77					58	56
Clothing	125	149	170	25	28	27	25	30	30
Leather and leather goods	8	9	8	10	12	12	9	87	87
Wood and wood products	20	28	33	7	10	12	12	80	72
Paper and paper products	4	5	4					97	84
Printing and publishing	11	15	14	7	5	5	4	41	52
Rubber and plastics	54	68	72	24	28	30	26	77	65
Chemicals and petroleum ^b	222	270	339	24	26	28	31	65	68
Nonmetallic minerals	7	10	14	3	3	4	5	88	85
Basic metals	20	34	29	14	12	19	15	84	77
Metal products	119	148	229	12	20	26	33	86	86
Machinery	104	140	157	16	29	32	26	52	49
Electrical and electronic products	112	131	135	23	25	25	20	77	73
Transport equipment	100	163	244	5	9	10	13	96	97
Miscellaneous	44	66	107	25	33	36	52	31	45
Total exports (excl. diamonds)	1,227	1,554	1,921	13	17	19	20	29	32
Diamonds, net	712	1,003	1,318	100	100	100	100		
Total industrial exports	1,939	2,557	3,239	20	24	25	23		

^a Output and exports are at producer prices (including subsidies, excluding taxes), and at constant 1968/69 prices.

^b Export data do not include petroleum.

TABLE XIV-5

**ANNUAL CHANGES IN WHOLESALE PRICES OF INDUSTRIAL OUTPUT FOR THE
DOMESTIC MARKET BY MAIN BRANCHES, 1976-78**
(percent)

	Annual change			Change during the year ^a		
	1976	1977	1978	1976	1977	1978
Total	30.9	38.6	53.2	39.5	49.7	49.1
Mining and quarrying	38.0	44.8	77.6	39.6	65.5	75.9
Food, beverages, tobacco	26.8	38.1	43.4	40.4	51.7	38.7
Textiles	40.5	38.3	47.4	43.6	39.0	49.2
Clothing	40.0	38.0	44.8	44.4	41.1	43.0
Wood and wood products	35.0	37.0	48.9	38.0	43.6	43.6
Paper and paper products	32.4	43.7	31.9	39.2	41.6	32.4
Printing and publishing ^b	—	—	—	—	—	63.3
Leather and leather goods	57.8	48.6	59.4	74.8	52.1	60.1
Rubber and plastics	31.3	36.4	45.8	36.7	41.8	45.6
Chemicals and petroleum	26.1	37.0	58.3	33.2	54.0	48.4
Nonmetallic mineral products	28.9	37.9	68.6	33.8	54.8	67.3
Basic metals	29.1	36.2	58.8	40.2	45.2	58.4
Metal products	27.6	38.0	58.1	39.9	48.1	53.8
Machinery	33.2	38.6	55.2	39.2	53.6	46.3
Electrical and electronic equipment	31.1	40.2	67.0	38.8	61.1	55.9
Transport equipment	28.0	38.4	68.3	30.6	62.1	51.6
Miscellaneous	33.9	44.8	56.7	47.6	55.4	46.9

^a Calculated on the basis of the price index for December of the year under discussion and January of the following year, compared to the average for January of the year under discussion and December of the previous year.

^b The index for this branch was calculated for the first time in 1978.

SOURCE: Central Bureau of Statistics.

that total production in these branches hardly rose at all during the year. At the end of the period, in 1978, the incremental domestic demand was satisfied to a certain extent at the expense of exports. Thus there was a rise in the share of exports in a large number of branches in 1976, and a decrease in their share in a large number of branches in 1978.

It should be noted that industrial export is highly concentrated, the bulk of it being implemented by a relatively small number of companies and enterprises. The degree of concentration has apparently even risen slightly in recent years: whereas in 1976 half of all industrial exports (excluding diamonds) were accounted for by the 26 largest concerns, in 1978 only 22 were responsible for half of all exports. The most prominent are Israel Aircraft Industries, Israel Military Industries, Soltam, Haifa Oil Refineries, Tadiran, Dead Sea Works and others in the chemical, rubber, textile and clothing, electrical, food, and jewelry branches. The 100 largest concerns were responsible for about three-quarters of all industrial exports during the past year. Moreover, about half the incremental exports during 1978 was accounted for by only four concerns. Apparently one of the important factors in the expansion of exports by the large concerns is a suitable marketing apparatus abroad. It is more difficult for small concerns to penetrate the export markets, since this involves widespread advertising, topnotch agents, and the establishment of a customer service network or a "parent company" which sees to these needs.

2. EXPORTS PRODUCTION, AND FACTORS OF PRODUCTION

Table XIV-6 shows the changes in the three years since 1975 in industrial production and productive factors (capital and labor) in two groups of branches: the "export branches", defined as those in which the share of exports is more than one quarter of production in that branch, and "other branches", in which the proportion of exports is lower. About 72 percent of all exports were concentrated in the export branches, in two of which the export share was more than 50 percent in 1978 — mining and quarries, and miscellaneous industries — and six branches in which exports account for nearly a third of production — textiles and clothing, rubber and plastics, chemicals and petroleum, metal products, machinery, and electrical and electronic equipment. This analysis is based on data for only 17 main industrial branches, in the absence of yearly figures on capital stock in about one hundred subbranches; the conclusions therefore reflect only general trends.

The growth of industrial production was almost equal in the two groups of branches during the last three years. Exports actually expanded more in those branches with a lower proportion of exports: this is consistent with the claim that fluctuations in domestic demand for industrial products were an important determinant of the volume of exports.

TABLE XIV-6

**REAL ANNUAL GROWTH IN PRODUCTION, EXPORT, PRODUCTIVE FACTORS,
AND PRODUCTIVITY IN EXPORT AND OTHER INDUSTRIAL BRANCHES,
(EXCL. DIAMONDS), 1976-78**
(Annual rates in percent)

	Export branches ^a	Other branches	Total industry
Weight of group in export	72	28	100
Real change:			
Export	20	29	22
Production	5.2	5.6	5.4
Factors of production factors:			
Capital stock	8.0	0.5	2.4
Labor input	0.0	0.5	0.3
Total productivity	1.7	3.3	2.4
Output per man-day	5.2	5.1	5.3
Number of workers	1.9	2.0	1.9
Number of man-days per worker	-1.9	-1.5	-1.6
Wages per working day ^b	47	46	47

^a Export branches are defined here as those whose exports constitute more than 25 percent of their output. In accordance with this definition, eight branches were included in this group: mining and quarrying, textiles and clothing, electrical equipment, machinery, metal products, chemicals and petroleum, rubber and plastics, and miscellaneous. (The reference here is to a total of 17 main branches of industry.)

^b The annual change in wages per working day is the average of the rates for 1975-78.

In other words, constraints on the supply side set limits to the growth of the total product in many branches, while the growth in exports was determined to a large extent by the development of domestic demand.

As for productive factors, the labor input was stagnant in both branch groups, but the growth of capital stock was twice as fast in the export branches. The growth of capital intensity of these branches is also indicative of the trend toward increased mechanization in branches exporting on a large scale, even when they are inherently labor-intensive, such as electronics and clothing. The increase in capital intensity is partly intended to reduce the uncertainty arising from a heavy dependence on labor and an anticipated rise in real

wages. Increasing capital and production capacity at the expense of labor makes it possible to reduce to a certain extent the dependence on wage increases, and to exploit surplus capacity when a large, urgent export order is received. Unutilized capacity in the export branches is reflected in the somewhat lower growth of overall productivity in these branches in comparison to others.

The equal growth in wages in the two groups during the period under discussion conceals an average with a high variance among the export branches and a small dispersion in the other branches. The daily wage in mining and quarrying rose at a 39 percent average annual rate since 1975, while in electrical and electronic equipment it went up 59 percent. In 1978 the gap was even wider: in chemicals there was a rise of 41 percent in the daily wage, compared to 83 percent in electrical and electronic equipment and 71 percent in miscellaneous industries. It is reasonable to assume that these large differences reflect, *inter alia*, excess demand for different types of workers and at different wage levels. Recently there was apparently a shortage of unskilled and semiskilled female labor for precision work in labor-intensive branches such as electronics and production of objects d'art. The relative rise in the number of women employed in industry, and apparently also in the number of pensioners, finds expression in the decline since 1976 of the number of Mondays and hours worked per employed; i.e. the number of parttime workers has increased. Another reason for this decline apparently lies in the switch of many industrial enterprises to a five-day week.