

## CHAPTER XVI

### TRANSPORTATION, COMMUNICATIONS, AND TOURISM

#### 1. MAIN DEVELOPMENTS

In 1977, the product of the transportation and communications branch increased at a rate similar to that of 1976: 7–8 percent<sup>1</sup>. This rate was high compared to the other sectors of the economy, as it had been the year before.

The main factors that led to this development are related this year to developments within the economy, as well as to factors outside it: exports of both services and goods made a decisive contribution to the acceleration of the branch output growth. The output resulting from freight transport (mainly by truck) recovered in 1977, after two years of continuous decline, owing to the accelerated growth in the production of numerous industrial branches, particularly an exceptional acceleration in the transport of phosphates and potash for export. This offset the influence of weakening demand for transport (which decreased less this year than last) in the construction sector and the related industrial sectors.

This development also contributed to the increased movement of export freights through the ports.

In 1977, the quick growth of the output of international aviation continued, output stemming from air freight transport by El-Al and the CAL Company almost doubled, and the bulk of additional transport capacity was directed to freight transport. On the other hand, the increase of output from the transport of passengers was lower, although there was no significant change in passenger traffic by air to and from Israel. As a result, El-Al's share of transportation diminished.

The slowdown in the growth of output is explained mainly by the restricted supply of aviation equipment. Despite the recession in world shipping, the growth of real output in Israeli shipping accelerated, following a rapid growth in transport between foreign ports. Most of the development effort of recent years has been invested in this part of the branch, and the income of Israeli shipping from activities nor directly related to the Israeli economy comprised about 60 percent of the total income of the branch.

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<sup>1</sup> See footnote a in Table XVI-1.

TABLE XVI-1

CHANGES IN REAL OUTPUT, PRODUCT, AND PRICES OF THE TRANSPORTATION AND  
COMMUNICATIONS SECTOR, BY BRANCH, 1969-1977  
(percent)

	Estimated weight in GNP in 1976 (at 1978 prices)	Weight in revenue 1976	Output				Prices	
			1969-1972 annual average	1973-1973 annual average	1976	1977	1976	1977
Domestic services	75.8	51.2	12.8	3.0	5.7	6.2	28.9	34.7
Land transport	38.2	29.4	8.4	0.8	1.3	5.1	26.8	39.8
Buses	12.0	9.2	6.4	0.6	6.0	1.7	29.1	37.3
Taxis	4.0	3.5	4.6	-0.9	-2.0	5.0	36.0	47.3
Trucks	21.4	16.1	10.5	-1.7	-1.0	7.0	25.0	40.0
Railway	0.8	0.6	2.5	4.1	15.9	7.7	-1.1	28.2
Other	37.6	21.8	22.3	9.3	12.6	7.6	31.9	28.1
Oil and gas pipelines	6.8	2.0	51.9	-2.2	17.4	4.7	41.8	33.9
Domestic air services	0.5	0.8	18.9	0.5	-9.8	-4.4	36.0	44.4
Posts and telecommunications	30.3	19.0	19.4	11.0	13.2	8.4	30.8	27.0
International services	24.2	48.8	12.1	6.1	7.0	13.0	28.1	31.2
Shipping and ports	14.9	35.3	10.7	6.0	1.2	7.3	25.0	32.3
Shipping	7.1	29.4	10.9	7.1	2.3	8.6	24.7	32.3
Ports	7.8	5.9	10.2	0.6	-3.8	0.8	26.8	32.5
Civil aviation and airports	9.3	13.5	16.7	6.7	28.0	28.1	34.8	28.8
International aviation	7.6	12.4	16.5	6.6	28.0	28.2	36.4	26.3
Airports	1.7	1.1	20.8	7.5	27.1	27.3	41.3	56.2
Total output at market prices	100.0	100.0	12.7	4.4	6.4	9.5	28.5	32.9
Estimated change in the sector's product, at fixed prices			13.4	3.4	7.4	8.0		

## NOTES:

- Output is at market prices, including the defense stamp duty on bus, railway and postal services, excluding bus subsidies, the deficit of the railway, and the tax on air travel (until October 1977). From 1976 these data include VAT collected from various subbranches.
- The basis for estimating the change in the sector product is data from the 1968/69 input-output tables; the annual output changes in the subbranches are used as an indication of changes in the product at fixed prices. Apparently, the further we are from the base year, the lower the quality of the estimate due to the change in the input/output ratio in the subbranches.
- Additional details regarding the calculations and sources for this table appear in the Appendix to this chapter, as well as in the chapter itself.

An increase was noticeable in the transport of export freight as well, and output from the transport of import freight continued to decrease, although at a lower rate than last year. There was a certain increase this year in the real output of ports due to a slowdown in the pace of its decrease in 1976 and following an increase in the haulage of export freight and a slowdown of the decline in imported quantities.

The growth of the communications product (after deducting work done for the Defense System) also accelerated this year, owing to the acceleration of telephone services.

Gross capital stock in the transportation and communications sector (including capital stock in roads) increased in 1977 by about 5–6 percent in real terms. The number of employees in the sector (including those in storage) increased, according to manpower survey data, by 2 percent, after a drop in employment in the years 1975 and 1976. According to rough estimates, total productivity of the sector increased by about 4 percent in 1977. In 1976, productivity increased by about 6 percent (similar to the annual average for the years 1969–1972), while in the years 1973 to 1975, when the sector underwent a relative slowdown, productivity decreased at an annual rate of 3–4 percent<sup>2</sup>.

Almost one million tourists arrived in Israel in 1977 – an increase of approximately 24 percent. Direct income from tourism in 1977 is estimated at \$460 million, which constituted about 20 percent of total service exports this year<sup>3</sup>. The growth rate of the number of tourist bed/nights in hotels decreased in 1977, as did the number of bed/nights of local residents. The total increase in the number of bed/nights in 1977 exceeded the increase in the number of hotel rooms, resulting in a growth in average occupancy. The moderate increase in the number of rooms was accompanied by a considerable addition to the average number of employees in hotels.

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<sup>2</sup> See Table A-XVI-5 and explanations in the Appendix to this report.

<sup>3</sup> The comparison of direct revenues from tourism between the years 1977 and 1976 has only limited significance for a number of reasons: a change in the incentive policy for the hotel branch in the middle of 1976, which brought about an increase in the volume of foreign currency conversions in banks, changes in the volume of conversions in banks during these years due to the gap between the official exchange rate and the rate on the “black market”, irregularity in conversion reporting in 1976, and the new economic policy in October 1977. Revenues from tourism in November and December 1977 are only estimates, and they appear to have an upward bias. See also Chapter V in this report.

The effect of the exchange rate reform on the export profitability of shipping and aviation services was apparently limited, although these services had not enjoyed export incentives in the past since their rate of value added is relatively low. At the same time, the tourist branches, whose value added is high, (only some of which had in the past been given export incentives), undoubtedly benefitted from the effect of the reform.

## 2. DOMESTIC TRANSPORT

### A. PASSENGER TRANSPORT<sup>4</sup>

Real output from the transport of passengers increased in 1977 by 2–3 percent<sup>5</sup>. This estimate apparently has a downward bias due to an incomplete evaluation of output from passenger transport (mainly tourists) on special journeys and tours in the bus branch. The rate of change of the output corresponds with the change in real private consumption, the growth of the population, and developments in tourist traffic to Israel.

In this context, it is worth noting that only about 50–55 percent of all travel in the economy consists of public transportation, and the rest is private and commercial vehicles. There was a 6.5 percent acceleration in the total accumulation of private vehicles in 1977. This growth rate is high relative to the years 1975 and 1976, but considerably lower than any other year. The level of motorization rose in 1977 by 4.5 percent and reached 85.5 percent by the end of 1977<sup>6</sup>. Simultaneously, the average annual

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<sup>4</sup> This also includes output from the transport of passengers in buses, taxis, by train and in-land aviation. The survey does not deal with tour bus companies or excursion vehicles, which are not associated with the cooperatives and are not included in the data of the Central Bureau of Statistics. Nor does the survey deal — due to lack of statistical reporting — with tour taxis, independent car rentals, and vehicles operated by tourist agencies and hotels. Due to the growth of tourist traffic to Israel in the past two years, all these activities have undoubtedly increased at a rate higher than that indicated here.

<sup>5</sup> The comparison of the growth rate of output to previous years is unclear, due to the free transport of soldiers on interurban lines from June 1976, and because of the nature of statistical estimates concerning the volume of transport of the Defense System, which has diminished significantly in recent years, both in the bus branch and in Arkia planes.

<sup>6</sup> The level of motorization is measured in terms of the number of private cars per 1,000 residents, and was in the years 1972 to 1976: 61.2, 70.1, 78.2, 80.0 and 81.8 respectively.

number of kilometers per private vehicle decreased by about 3 percent (and by 1 percent and 11 percent in the years 1976 and 1975 respectively)<sup>7</sup>.

The growth in the real output of passenger transport was accompanied by an acceleration of supply as well: the total number of buses increased by 4 percent and that of taxis by 7.6 percent<sup>8</sup>. The growth rate in the number of employees in the bus companies also accelerated this year: 4.2 percent as opposed to 1.7 percent in 1976. In addition, the process of replacing members of the cooperatives with hired labor also continued and even accelerated. The average salary of an employee is considerably lower than that of a cooperative member. Output per worker and per bus decreased in 1977. (See Table A-XVI-1 in the Appendix to this chapter.)

Output from the operation of regular bus lines increased in the year under review by over 3 percent, while output from passenger transport on special journeys and for purposes of tourism remained constant, after increasing by 10 percent last year.

The decrease in the average number of kilometers per private vehicle in 1977 seems to indicate a more widespread use of public transport services (buses and taxis), the cost of which rose less during the year than the cost of private vehicles and their maintenance (in interurban travel – on a yearly average as well). The ratios between prices of bus services and taxis changed considerably this year to the detriment of taxis<sup>9</sup>.

Direct subsidies to buses on regular lines, after deducting government payments for the transport of soldiers, totalled about IL 813 million in 1977, or an increase of 45 percent over last year<sup>10</sup>. The proportion of subsidy in the cost of travel to the consumer

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<sup>7</sup> The maintenance of vehicles became about 40 percent more expensive during 1977, mainly due to the rise of fuel prices, while the prices of private vehicles to the consumer rose by about 69 percent.

<sup>8</sup> A net addition of about 240 buses and about 37 taxis. At an annual average the number of buses increased in 1977 by 4.5 percent and taxis by 6–7 percent.

<sup>9</sup> During 1977 bus fares increased by about 42 percent, urban taxi fares by about 54 percent and interurban taxi services by approximately 49 percent. The average fare increase was about 40 percent and about 38 percent in urban and interurban bus services respectively, and in taxi services, 49 percent and 44 percent respectively.

<sup>10</sup> In 1977 the government paid the Dan Cooperative about IL 107 million for the transportation of soldiers on interurban bus lines. The input price index for buses increased at an annual average of about 38 percent.

collected by the cooperatives on the regular lines was similar in 1977 to that of 1976 – 57.5 percent. The share of subsidies in the total income of cooperatives for these lines<sup>11</sup> was 38–40 percent for the years 1976 and 1977. As in previous years, subsidies to cooperatives were given this year on the basis of general considerations, the increase in operating costs, the financing of discounts to various consumers, and as a substitute for additional fare increases – without setting any defined transportation goal, such as easing the congestion of traffic in towns, saving fuel, or reducing the number of road accidents. Nor is the effect of subsidies on the distribution of income clear.

## B. FREIGHT TRANSPORT<sup>12</sup>

After two years of decline in real output from freight transport, there was an increase in 1977 of about 7 percent<sup>13</sup>. The main cause for the growth of output for both trucks and railways is the considerable increase in mineral transport (phosphates and potash for export) which began in 1976. The acceleration of production in many industrial branches whose weight is considerable in transport of the trucking branch increased demand for transport services and offset the impact of the decrease in output of the construction and siteworks branches, including those industrial branches directly related to the construction branch. These branches constitute about 15–20 percent of the branch output. Branches related to construction contributed to a 2 percent decline in the output of the trucking branch in 1977 (compared to more than 4 percent in 1976), while the transport of phosphates and potash contributed about 6–7 percent to the growth of output. The output of trucks transporting freight increased by about 7 percent, after decreasing by about 3 percent and 1 percent in the years 1975 and 1976 respectively.

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<sup>11</sup> Including fares and subsidies, excluding the collection of the Defense Stamp and value added tax.

<sup>12</sup> Output from the transport of freight by trucks, by train, by buses and by Arkia, as well as from the flow of fuel in pipes.

<sup>13</sup> In estimating the change in output, the transport of freight by buses and by inland aviation was also taken into account. As to the change in the output of the trucking branch, it should be emphasized that it was not estimated by direct measurement, but by using indicators, such as the industrial production index, agricultural marketing, the transport of minerals by trucks, investment in construction and site works, etc., the estimate of change in output should therefore be considered with caution. The definition of the trucking branch includes all trucks, including those whose main activity is not transport for payment. This definition of the branch is different from the one customary in National Accounting.

In 1977, the total number of trucks (with an authorized weight exceeding 2.5 tons) also grew by more than 2 percent in terms of transport capacity. This growth in supply did not offset the decrease in transport capacity that had taken place in 1976<sup>14</sup>. It should also be pointed out that since September 1977, transport has been forbidden under overload conditions for dump trucks that function generally in the transport of bulk freight for road paving and construction works. This change in traffic regulations was intended mainly to reduce the damage caused to the infrastructure and the wearing out of the vehicles. The regulations also made possible the absorption of supply surpluses for this kind of truck<sup>15</sup>, which has been affected by a recession in the construction branch.

An additional though only partial indication of the development of the trucking branch output is the consumption of diesel fuel, which increased by 6 percent in 1977 after declining by about 1 percent in 1976.

The authorized increases in truck transport prices were realized, and even exceeded; the annual average price increase is estimated at about 40 percent<sup>16</sup>. In contrast, in the years 1975 and 1976, authorized price increases were generally not realized due to the slump in the branch.

In contrast to these price rises, the rise of the price of freight transported by rail was most moderate – an annual average of only about 27 percent – which means a real drop in transport prices. An increase of 1 percent in ton/kms transported by train in 1977 should be noted; the main increase was in the transport of minerals as well as in the transport of containers, in competition with trucks<sup>17</sup>.

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<sup>14</sup> We are unable to estimate the decrease in transport capacity stemming from the rise in the average age of vehicles since 1974.

<sup>15</sup> For the transport of a given quantity of freight, an increase in vehicle rotation is now required.

<sup>16</sup> Control on transport prices of dump trucks was lifted following the new traffic regulations. Transport prices for these trucks rose at an annual average of over 60 percent, while in the course of the year there was an increase of approximately 120 percent in prices.

<sup>17</sup> Operational expenses of the railways increased more than their revenues (except government subsidies), and as a result the operating deficit of the railways increased by about 51 percent (excluding activity in the Gaza Strip). The total deficit of the railways in 1977 amounted to about IL 161 million).

There was a considerable deceleration in the growth of fuel pipeline output in 1977: 4.7 percent against 17.4 percent for 1976. Output arising from the flow of crude oil was nearly stable, following an increase of 21 percent in 1976. The decrease in the flow of transit fuel was offset by a growth in the flow for domestic use.

### 3. TELECOMMUNICATIONS<sup>18</sup>

There was a slowdown in the growth rate of the telecommunications branch output in 1977, amounting to about 8 percent. However, after deducing the output stemming from the supply of services to the Defense System and other external factors<sup>19</sup>, the growth of output accelerated by more than 13 percent, as against approximately 9 percent in 1976.

The output of the telephone services, measured in revenue at constant prices (constituting more than 80 percent of the output of the branch) increased by approximately 19 percent<sup>20</sup>, while in the postal services the downward trend in output has continued. (See Table A-XVI-2 in the Appendix to this chapter).

The physical data show a slow rise in the use of telephone services for local calls, and a very rapid increase in international calls, owing to the direct dialling network, and probably to a more widespread use by tourists and the international communication media, due to the political events at the end of the year. The deceleration in the growth of the number of local calls was apparently caused by the decline in the number of new installations in the past two years and from the fact that during this period most of the additional new lines were given to households, in which the rate of telephone usage is lower than in business and in public institutions<sup>21</sup>. The apparent explanation does not lie with the changes in relative prices, since tariffs rose at a yearly average that was lower than the average rise in prices in the economy. At the same time, the rise of prices in the

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<sup>18</sup>Not including the activities of the Postal Bank.

<sup>19</sup>Output from the supply of services to outside factors is measured at the time of payment for the service, but the timing of payments is irregular and almost unrelated to real activity.

<sup>20</sup>It should be emphasized, that the reliability of financial data concerning the distribution of activity over the years is generally lower than the reliability of physical data.

<sup>21</sup>Households (including business establishments) are responsible for about 76 percent of all telephone lines, but only 27 percent of the income of telephone services. In 1974, 48 percent of households had telephones (and about 51 percent of urban households).

course of the year was higher than the average in the economy – about 48 percent. The scope of discounts and grants accorded to various telephone consumers (government employees, invalids, Knesset members, etc.) increased during the year 1977/78, totalling about IL 63 million<sup>22</sup>, or about 2 percent of the total income of the telephone system.

The real drop in the price of telephone installations (the annual average rise in the installation price index amounted to approximately 13 percent in 1977) might explain the increase of demand for telephone installations in 1977, after the drop in 1976. Despite the increased demand, there was a decrease in 1977 in the number of new installations, which amounted to about 51 thousand<sup>23</sup> (See Table XVI-2).

**TABLE XVI-2**  
**TELEPHONE SERVICES, 1973–1977**

	Direct subscriber lines connected <sup>a</sup>	No. of installations	No. of applications	Applications outstanding <sup>b</sup>	No. of telephone calls	Annual change			
						Installations	Applications	Applications outstanding	No. of calls
		(thousands)		(millions)		(percent) <sup>c</sup>			
1973	494.2	54.5	77.3	144.1	1,786.2	12.1	-18.0	13.5	11.0
1974	533.2	45.3	74.8	166.9	1,936.4	-16.9	-3.2	15.8	8.4
1975	583.6	54.0	75.6	179.6	2,200.2	19.2	1.1	7.6	13.6
1976	627.0	52.3	66.5	185.1	2,555.8	-3.1	-12.0	3.1	16.2
1977	671.2	50.5	69.7	192.7	2,835.7	-3.3	4.8	4.1	11.0

<sup>a</sup> A direct subscriber line is defined as a connection from a central exchange to a subscriber (a subscriber may have more than one direct line).

<sup>b</sup> Applications outstanding is defined as the number of applications still pending from previous years and installations in process at the end of the year

<sup>c</sup> Unrounded figures.

SOURCE: Central Bureau of Statistics.

<sup>22</sup> Expressed in September 1977 prices. In other telecommunications services, discounts amount to IL 22 million.

<sup>23</sup> Compared with 70 thousand planned installations.

TABLE XVI-3

## ISRAELI SHIPPING REVENUE AND OUTPUT GROWTH, 1975-1977

	1975	1976	1977 <sup>a</sup>	Distribution of revenue			Annual change in real output		
				1975	1976	1977	1975	1976	1977
	(IL million)			(percent)					
Cargo (incl. fuel) <sup>b</sup>	3,268.3	4,297.2	6,183.2	89.8	92.5	92.7	1.4	5.4	8.1
Imports	(1,440.7)	(1,614.9)	(1,930.6)	(39.6)	(34.8)	(28.9)			
Exports	(410.9)	(505.9)	(924.8)	(11.3)	(10.9)	(13.9)			
Between foreign ports	(1,416.7)	(2,176.4)	(3,327.8)	(38.9)	(46.8)	(49.9)			
Charter leasing <sup>c</sup>	321.6	312.8	421.5	8.8	6.7	6.3	0.7	-17.7	12.4
Miscellaneous	51.7	35.6	67.9	1.4	0.8	1.0	-34.8	-44.9	46.5
Total revenue	3,641.6	4,645.6	6,672.6	100.0	100.0	100.0	0.5	2.3	8.6

<sup>a</sup> 1977 data are provisional.

<sup>b</sup> Including oil in transit. The change in real output resulting from transport of fuel from 1976 to 1977 was 5.5 percent.

<sup>c</sup> Revenue from chartering vessels between Israeli companies amounted to IL 475 million in 1975, IL 538 million in 1976 and IL 718 million in 1977.

The decline in installations can be explained primarily by the decrease in the number of employees in telecommunications, the freeze on existing installations, by organizational and administrative limitations on the efficient use of available manpower, and by the considerable shifting of old lines. Accumulated demand surplus at the end of 1977 amounted to about 193 thousand. In recent years the demand surplus for telephones has been increasing, despite the fact that the economic profitability of the telephone services justifies investment. There is an interference here in consumer preference and apparently a disturbance of production systems in the economy as well.

#### 4. INTERNATIONAL TRANSPORT SERVICES

##### A. SHIPPING AND PORTS

Real output in the shipping and ports branches increased in 1977 at the rate of approximately 7 percent (8–9 percent in shipping<sup>24</sup> and about 1 percent in ports). Thus, output accelerated in relation to the years 1975–1976. This development in output is highlighted against the backdrop of the sharp recession prevailing in the world shipping branch for a number of years<sup>25</sup>. Aggravation of the recession stemmed mainly from the slowdown of growth in most industrial countries in 1977.

The accelerated growth of output in shipping in 1976 was entirely the result of fuel transport (mainly in transit), while in 1977 relatively quick growth was made possible by the increase in activity between foreign ports and in exports. (See Table XVI.3.)

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<sup>24</sup> The change in real output of shipping is measured through the change in revenue at constant prices. The estimated change of prices in shipping is calculated by weighting the price change in freight transport, fuel and leasing fees to foreigners. For the measurement of the change in freight transport prices (on the Zim lines), a fixed basket (in the previous year) of total freight according to lines was taken into account. Since the change in revenue per freight-ton in each line serves as an indicator of price changes, the price index will be deflected when the freight composition on the line is changed. In 1977, such a change apparently caused an upward deflection of the estimated price change, and thus the estimate of real change, stemming from freight transport, apparently has a downward bias.

<sup>25</sup> Some of the characteristics of this crisis in 1977: a slowdown of world maritime trade, which only increased by 3–4 percent, a slowdown in world fleet loading, although its increase was higher than that of trade, an accumulation of supply surpluses and partial or complete unemployment of about 15 percent of the world fleet load capacity (mainly tankers) and declines in transport prices (except in ships working in the framework of conferences, where there were price increases parallel to the pace of world inflation).

TABLE XVI-4

## ISRAEL'S MERCHANT FLEET, BY TYPE OF SHIP AND TONNAGE, 1975-1977

	Number of ships			Tonnage			Annual change in carrying capacity <sup>a</sup>		
	1975	1976	1977	1975	1976	1977	1975	1976	1977
				(thousands deadweight tons)			(percent)		
General	53	55	57	527.7	558.1	594.7	1.1	4.3	5.8
Reefers	9	3 <sup>c</sup>	4	79.4	6.7 <sup>c</sup>	11.8	0.2	-48.1	-77.6
Bulk carriers	18	19	21	889.8	946.1	986.4	-2.6	1.0	1.7
Total dry cargo <sup>b</sup>	80	77	82	1,496.9	1,510.9	1,592.9	-1.0	-1.9	1.0
Tankers	27	24	24	2,986.2	2,941.5	3,045.1	16.7	-1.1	2.5
Total cargo ships	107	101	106	4,483.1	4,452.4	4,638.0	10.0	-1.0	1.9

<sup>a</sup> The carrying capacity of cargo ships is calculated as the product of the tonnage, speed, and percentage of the year during which the vessel was Israeli-owned

<sup>b</sup> Excluding tankers.

<sup>c</sup> Beginning from July 1976 this does not include ships owned by Maritime Fruit Carriers, even though not all of the ships were formally removed from Israeli registration.

SOURCE: Based on data of the Central Bureau of Statistics and of the Shipping and Ports Division of the Ministry of Transport.

The upward trend in the quantity of cargo transported between foreign ports, which distinguished the last years, continued with the development of the "Three Continents" line of "Zim", and the growth noted in 1977 was about 28 percent, compared to 22 and 24 percent in the years 1976 and 1975 respectively. The quantity of export cargo also increased in 1977, mainly as a result of the growth in the export of minerals, after having declined in 1976.

The decrease in the quantity of imports transported by Israeli shipping continued for the third year, although its pace slowed by more than 8 percent. This decrease reflects the relative stagnation of activity in the economy and the decline in the quantities of direct Defense imports.

Cargo traffic in Israeli ports increased in 1977 by more than 10 percent, after declining in 1976. While export quantities (constituting about 44 percent of the quantity of cargoes and 17 percent of the income of ports in 1976/77) increased by 27.5 percent, import quantities decreased by more than 2 percent – about half the rate of decline

last year<sup>26</sup>. (See Table A-XVI-3 in the Appendix to this chapter).

The share of Israeli shipping in Israeli trade (excluding fuel) dropped in 1977: in imports to 59 percent and in exports to approximately 46 percent.<sup>27</sup> This phenomenon is related in part, to the paralyzation of the fleet due to the strike by the naval officers in April 1977, and the decrease in defense imports.

The transport capacity of the fleet increased in 1977 by about 2 percent. The increase took place this year in all parts of the fleet, along with the continued progress of modernization of the cargo fleet. In the course of the year, about \$57 million was invested in the fleet (purchase of ships less sales), against about \$14 million invested in 1976. (See Table XVI-4.)

Transport prices in Israeli shipping in 1977 did not increase considerably on the average (in dollars terms)<sup>28</sup>. Although the transport of cargos increased by an average of only 2 percent, there was a considerable price increase on lines related to Israeli trade, in which "Zim" has great weight, while on international lines, in which "Zim" competes with other companies, there were price drops. The changes in pricing of fuel transport and of leasing to foreigners depend to a great extent on the timing of the renewal of (generally long-term) transport contracts and only a small part of the activity is subject to fluctuations on the free market. The total decline of prices in these branches came to about 3-4 percent.

In recent years, the increase in the total income of the Israeli fleet from activity in international transport unrelated to the Israeli economy stands out. In 1977, this income constituted 56 percent of total shipping income, compared to 53 percent last year. It is worth noting that the percentage of value added in foreign currency income from activity between foreign ports is generally lower than the sector average. It is estimated to be about 15 to 20 percent.

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<sup>26</sup> Total cargo imports decreased in 1977, while general cargo import increased at a rate of 3.5 percent, as against a downward trend in the years 1975 and 1976. The haulage of containers (in imports and in exports), which had slowed down in 1977, constituted less than a quarter of the total tonnage in 1976/77, and about a third of the revenue of ports. See Table A-XVI-3 in the Appendix to this chapter.

<sup>27</sup> The share of Israeli shipping in the quantity of import cargo was, in the years 1974 to 1976, 64, 70 and 63 percent respectively, and in the quantity of export cargo, 45, 58 and 54 percent respectively.

<sup>28</sup> Including fuel tax and other levies.

The expected income of the "Zim" company from its activities in 1977 is lower than that of the two previous years, due to the increase of operating expenses and damages caused by strikes during the year.

The number of employees in the ports continued to decline in 1977 as in the past 3-4 percent this year, after a decrease of about 7 percent in 1976. Thus, the number of employees in the branch has dropped since 1974 by about 20 percent, owing to labor-saving technological changes, expressed mainly in the haulage of containers and the maintenance of more sophisticated ships. The downward trend in the number of employees was felt in shipping, too, as was an increase in capital intensity (and freight/tons) per employee.

## B. INTERNATIONAL AVIATION AND AIRPORTS

The quick growth of real output in the international aviation and airports branches continued in 1977 for the second consecutive year: in each of the years 1976 and 1977, output increased at a rate of 28 percent. This is a high growth rate compared to previous years<sup>29</sup> and compared to developments in international aviation throughout the world. The quick growth was in the output stemming from air transport of freight, while the growth stemming from passenger transportation was slower this year than in 1976: 13 percent against 28-29 percent the year before<sup>30</sup>.

Although in 1977 there was a smaller decrease in the number of tourists coming to Israel by air, there was no significant change in the number of passengers, and the quick growth of traffic continued.

The deceleration in the growth of El-Al output from the transport of passengers was not the consequence of demand limitations in the peak season, but rather of limitations in the supply of aviation equipment relative to the growth of passenger traffic, whose volume was not foreseen. The increase of passenger traffic in El-Al planes was therefore lower than that of total traffic, and the share of El-Al in international passenger traffic decrease by about 4 percent to approximately 51 percent in 1977. This development was accompanied by an increase in average occupancy in the planes of the company, reaching more than 70 percent on the European lines; on the other hand, on the North-Atlantic route, which is the most important of international airways, the occupancy of planes

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<sup>29</sup> In the years 1969-1972 the average annual growth rate of output was approximately 17 percent.

<sup>30</sup> The change in output stemming from the transport of passengers and cargo is measured as a change in revenue at constant prices.

TABLE XVI-5

**OUTPUT OF EL AL AIRCRAFT, 1975-1977**  
(in owned and leased aircraft)

	1975	1976	1977	Percent annual change		
				1975	1976	1977
1. Available seat-km. (million)	4,992	6,534	7,064	8.0	30.9	8.1
2. Revenue passenger-km. (million)	3,243	4,340	4,890	-14.0	33.8	12.7
Passenger load factor (2/1) (percent)	65.5	66.4	69.2			
3. Available ton-km., freight (million)	279	346	540	-3.5	24.0	56.1
4. Revenue ton-km. (million)	149	189	355	-4.5	26.8	87.8
Ton-km. load factor (4/3) (percent)	53.4	54.6	65.7			
5. Total ton-km., available passengers and freight (million) <sup>b</sup>	728	934 <sup>a</sup>	1,176 <sup>a</sup>	..	28.3	25.9
6. Total ton-km. revenue, passengers and freight (million)	441	580	795	..	31.5	37.1
Load factor (6/5) (percent)	60.0	62.1	67.6			

<sup>a</sup> Including equipment leased to CAL.

<sup>b</sup> For passengers, based on average weight of passenger (including baggage: 90 kg.).

SOURCE: El Al Airlines.

decreased, due to the slower development of traffic from the United States to Israel<sup>31</sup>, as well as to the increased capacity of the 747s of the company, which operate mainly on this route<sup>32</sup>.

1977 was the first full year of operation of 747 cargo planes (the first plane was put into cargo service only in November 1976), both on regular El Al lines and in the service of CAL, which started operating at the end of 1976. Thus, the quantity of cargo unloaded and loaded at Ben Gurion Airport increased in 1977 by more than 82 percent, compared with an increase of about 43 percent in 1976.<sup>33</sup> The increase in the quantity of

<sup>31</sup> In the number of El-Al passengers on this route (to and from the East Coast of the U.S.) there was a somewhat lower rate of growth than in total traffic.

<sup>32</sup> An addition of 9 percent to the number of seats per plane.

<sup>33</sup> The quantity of import cargo increased by 121.3 percent, and amounted to about 41 thousand tons, while the quantity of export cargo increased by 64.4 percent and amounted to 66.5 thousand tons. At the same time it is worth noting that the share of air cargo in the total quantity of cargo (by sea and by air) to and from Israel was only 1 percent in 1977. In June 1977, El-Al purchased a Boeing 747 cargo plane with an investment of \$36 million.

TABLE XVI-6

## TOURIST TRADE: BED-NIGHTS, LENGTH OF STAY, AND INCOME, 1972-1977

	1972	1974	1975	1976	1977	Percent annual change		
						1975	1976	1977
						(percent) <sup>c</sup>		
Tourist arrivals (thousands) <sup>a</sup>	727.5	624.7	619.6	796.6	986.5	-0.8	28.6	23.8
Thereof: on cruises (thousands)	(47.7)	(55.1)	(60.5)	(63.9)	(92.6)	(9.8)	(5.6)	(45.0)
Bed-nights in hotels recom- mended for tourists (thousands)	5,084.5	4,187.7	3,944.2	5,347.0	6,509.7	-5.8	35.5	21.7
Thereof: In 4-5 star hotels (thousands)	(2,862.1)	(2,532.6)	(2,451.1)	(3,389.7)	(4,133.5)	(-3.2)	(38.3)	(21.9)
Average stay of tourists (in days)								
Up to one month:	12	12	12	12	12			
Up to three months	17	18	17	16	16			
Median stay	13	14	13	12	11			
Income in foreign currency								
Total (\$ million) <sup>b</sup>	211.9	195.0	233.3	291.6	460.0	19.6	25.0	57.7
Average per tourist (\$)	291.3	312	377	366	466	20.8	-2.9	27.3

<sup>a</sup> Not including: about 20 thousand entering from Lebanon through the "good fence" in 1977, visitors to the administered areas from Jordan (131 thousand in 1977), most of whom also visited Israel, and visits of Israelis living abroad (about 40 thousand in 1977).

<sup>b</sup> Until October 1977, conversions in banks of foreign tourists, as well as foreign currency conversions of those providing goods and services to tourists (excluding El-Al); for November-December 1977, estimate of the Central Bureau of Statistics.

<sup>c</sup> Before rounding figures.

SOURCE: Central Bureau of Statistics.

cargo was made possible by a considerable drop in air freight prices, amounting to 25 percent (in dollar terms) for all air cargo (not including postal freight and additional passenger freight, so that the reduction of prices was greater in agricultural export cargo.

The year 1977 was also the first full year of partial liberalization in the policy of flights from Scandinavia and student flights. In the framework of charter flights, about 84.6 thousand passengers (the majority tourists) arrived in 1977, as against 36.3 thousand last year<sup>34</sup>. Tourist traffic by air from Scandinavia increased by 42 percent, with a 50.3 percent rise in regular flights, while charter flights increased by 38.5 percent; total increase of traffic from Germany amounted to 53 percent (the highest rate of growth), of which the increase of regular flights was 11.8 percent. The conclusion arising from these partial data is that at least at times of prosperity in tourism, charter flights to Israel constitute an accelerating factor for tourist traffic, and the extent of the harm they cause – if any – to regular flights is only limited.

There was a deceleration of the growth rate of regular worldwide air traffic in 1977<sup>36</sup>, and it increased by about 8 percent, but this is a rate of growth higher than in the crisis years in aviation, 1974–1975. This development corresponds to the economic developments in Western Europe and the United States<sup>37</sup>.

Competition between the regular companies, and between them and the charter companies, on the North-Atlantic route sharpened in 1977, in particular towards the end of the year, when the Skytrain<sup>38</sup> was introduced. El-Al also lowered some of its fares from Britain to the United States, as did other regular companies competing on this line. The prices of total output in the branch (El-Al and CAL) increased (in IL) by 26.3

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<sup>34</sup> El-Al flew about 8,200 tourists in 1977 by charter flights.

<sup>36</sup> According to preliminary data, excluding the Soviet Union, including international and inland aviation.

<sup>37</sup> The year 1977 in international aviation was characterized by the undermining of the status of IATA (International Air Transport Association) in the determination of air fares following the aviation agreement between the United States and Great Britain (The Second Bermuda Agreement), which encourages bilateral rather than multi-lateral aviation agreements. The year also stood out in the trend of U.S. aviation policy toward encouraging fare reductions, the enhancement of competition and more liberalization in the sector.

<sup>38</sup> Of the British Laker company.

percent, but after deducting the effect of the devaluations of the Israeli pound, prices dropped in dollar terms at a rate of about 3 percent. In passenger transport only, the average increase of prices in dollars was about 6.5 percent.

We have no final financial data concerning the revenues and expenditures of El-Al in 1977/78, but preliminary data point to an almost identical increase in both expenditures and revenues<sup>39</sup>. The number of employees in the branch (including CAL) increased by 7 percent in 1977, while at airports the number of employees increased by 8.5 percent.

## 5. TOURISM<sup>40</sup>

In 1977, the boom in tourism to Israel continued, although the rate of growth in the number of tourists coming to Israel slowed: 23.8 percent, as against 28.6 percent last year. A total of 986.5 thousand tourists arrived in Israel in 1977<sup>41</sup>. According to preliminary data, world tourism increased by 9-12 percent in 1977<sup>42</sup>, returning tourist traffic in the world in the past two years to growth rates similar to those of the sixties, after the recession that hit tourist traffic in the years 1973-1975.

The relative calm in the security situation (making possible regional tourism of tens of thousands of tourists arriving over the Jordan bridges and by cruise ships), as well as a growth in the purchasing power (in Israel) of currencies from European countries of origin important to tourist traffic to Israel, apparently contributed to the continued rapid growth of tourism to Israel in 1977. The liberalization of policy concerning charter flights in itself, expressed in an extension of the definition of flight categories permitted

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<sup>39</sup> This phenomenon does not deviate from the economic reality in which the regular companies function the world over: in the years 1966 and 1976, total operating expenses of the regular companies in the world increased at an annual average rate of 15.8 percent, while operating revenue increased on the average by only about 15.2 percent.

<sup>40</sup> This survey deals with tourism from abroad to Israel, not with internal tourism or with the travel of Israelis abroad.

<sup>41</sup> The data do not include visitors from Lebanon through the "good fence", visitors to the administered areas from abroad, as well as Israelis living abroad who visited Israel. Of the tourists, 83.2 percent arrived by air, 9.3 percent by cruise ships, and the rest, by land and by sea.

<sup>42</sup> Among Western European countries, Portugal, the United Kingdom and Spain stood out as countries in which the number of tourists increased above the average.

to come to Israel, may have contributed up to 4 percent to the growth rate of tourism<sup>43</sup>, but it can reasonable be assumed that at least some of the additional tourists that came by charter flights would have found their way to Israel by alternative means as well<sup>44</sup>. The change in aviation policy took place at a time when the importance of liberalization in charter flights for the encouragement of tourism increased, since owing to the sharp price competition between regular companies, mainly on the North Atlantic route, there was a reduction in (average) prices of flights to alternative tourist destinations relative to Israel.

In 1977, the relative share of tourists from Europe was maintained, while the share of tourists from North America declined. It is worth noting that the number of tourists from the United States this year was still lower than in 1972 (which was a peak year for tourism from the United States). The main explanation of this phenomenon is apparently the relative rise of prices (for the American tourist) in important European tourist countries. The damage to Israel is indirect and stems from the fact that many tourists from the United States combine a visit to Israel with a visit to Europe<sup>45</sup>. It is also possible that fares from the United States for young people and youth constitute a hinderance and, indeed, the number of tourists aged 15–29 who arrived from the United States to Israel in 1977 is significantly lower than the number arriving in 1972.

In the absence of a direct measurement, the change in the prices of services to tourists in Israel can be examined with the help of indicators which give an estimate of the change. The average revenue per hotel bed-night for tourists increased in Israeli pounds by 46 percent in 1977 (at top hotels even by 50 percent); this is an increase higher than that of the Consumer Price Index and the hotel input price index (which increased by

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<sup>43</sup> As distinguished from the contribution of total charter flights.

<sup>44</sup> Total contribution for the economy of those coming by charter flights cannot be evaluated at present due to the lack of statistical data particular to this kind of tourism.

<sup>45</sup> We have no up-to-date data for 1977, but from the 1972–1976 data it can be seen that the number of American tourists to overseas countries in those years increased by only 1.6 percent; to European countries and the Middle East there was a decrease during that period at a rate of about 8.3 percent (10.1 percent to Europe only). In “tourist-days” there was an even more pronounced decrease of 15.3 percent to Europe and the Middle East. It should be noted that the considerable drop in American tourism to Spain and Portugal, due to political events there, also contributed to the developments described above.

TABLE XVI-7

## HOTEL ROOMS, OCCUPANCY, AND EMPLOYMENT, 1972-1977

	1972	1974	1975 <sup>a</sup>	1976	1977 <sup>a</sup>	Annual change		
						1975	1976	1977
	(thousands)					(percent) <sup>c</sup>		
Number of hotel rooms (annual average)	20.6	22.4	23.6	24.2	24.9	5.5	2.5	3.0
In hotels recommended for tourists	17.1	19.7	20.7	21.5	22.4	5.0	4.0	4.2
In hotels of the two highest ratings	(7.1)	(9.9)	(11.2)	(11.6)	(12.1)	(13.1)	(3.4)	(5.1)
Occupancy ratio in hotels recommended for tourists (local and foreign)	59.3	47.6	44.2	51.2	55.0	-7.1	15.8	7.4
In hotels of the two highest ratings	(66.5)	(49.5)	(45.2)	(54.1)	(58.7)	(-8.7)	(19.7)	(8.5)
Numbers of employees in recommended hotels (annual average)	11.3	11.3	12.4	13.6	15.0	9.8	9.8	10.7

<sup>a</sup> 440 hotel rooms not rated in 1974 were graded 4-5 stars in 1975, grading of hotels with 446 rooms were changed.

<sup>b</sup> At the end of 1977 there was a total of 25.7 thousand rooms. Of these, 23.3 thousand were in tourist hotels, and of these, 12.7 thousand rooms (54.7 percent) in the highest rated hotels.

<sup>c</sup> Unrounded figures.

SOURCE: Central Bureau of Statistics.

40 percent), the average revenue per bed-night<sup>46</sup>, discounted for the effect of the devaluation of the pound, in dollar terms, increased by about 12 percent (and about 15 percent at high-rated hotels). At the same time, other data from the Tourism Administration indicate that prices of hotel services in 1977/78 increased by about 20 percent (in dollars) from 1976/77, and other services by even more than that. According to estimates, hotel costs represent about 40 percent of the total expenses of tourists in Israel<sup>47</sup>.

<sup>46</sup> Bed-nights of guests from abroad as well as of local residents. Including various revenues not directly related to the accomodation of tourists.

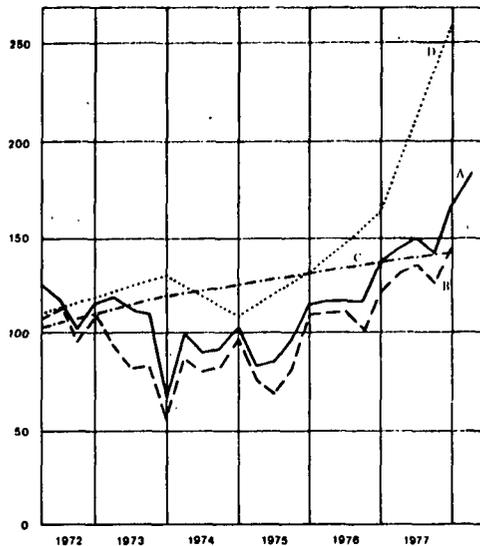
<sup>47</sup> Not including incentive payments to foreign currency revenues to hotels until October 1977.

Revenues in foreign currency converted by tourist and by suppliers of tourist services amounted to \$460 million in 1977, an increase of about 58 percent, and average conversion per tourist rose by more than 27 percent<sup>48</sup>. It should be noted that comparison between revenues for 1977 and 1976 is of only limited significance due to the change of policy concerning incentives to hotel keepers in the middle of 1976, which greatly changed the ratio between conversion through banks and sales on the black market<sup>49</sup>. The share of direct revenue from tourism in total exports of services at current prices, not including the administered areas, was about 20 percent in 1977<sup>50</sup>.

The change in the exchange rate itself, following the reform in October 1977, benefitted tourism branches having a high value added in relation to other economic sectors, and in fact export incentives were enjoyed only by hotels that had previously been discriminated against as compared to industrial sectors with a high value added group. The volume of incentives to tourist hotels in 1976 was IL 90 million, and in 1977 IL 260 million<sup>51</sup>. The incentive per export dollar

FIGURE XVI-1

**TOURISM INDEXES, 1972-1977:**  
**TOURISM REVENUE INDEX (ANNUAL),**  
**BED-NIGHTS (QUARTERLY), ENTERING**  
**TOURISTS (QUARTERLY), ROOMS IN**  
**TOURIST HOTELS (ANNUAL AVERAGE)**  
 (Base: 1971 = 100)



- A. Tourists, quarterly index, seasonally adjusted.
- B. Bed-nights of foreigners, quarterly index, data seasonally adjusted.
- C. Rooms, annual average index.
- D. Tourism revenues, annual index (in dollars).

<sup>48</sup> Data until October 1977 are based on full conversions; for November-December, on the estimates of the Central Bureau of Statistics. See remark in Main Developments in this chapter as well as the discussion in Chapter V of this report.

<sup>49</sup> See detailed discussion in the Annual Report of the Bank of Israel for 1976, pp. 339, 340. Data for 1977 include estimates of the Central Bureau of Statistics for the last two months of the year.

<sup>50</sup> Based on import CIF and export FOB records.

<sup>51</sup> Estimates of the Tourist Administration.

in hotels was IL 2.49 in October 1977, compared with IL 3.27 per industrial export dollar in the group with the highest value added. There was an increase of approximately 22 percent in the number of tourist bed-nights in tourist hotels in 1977, but at the same time there was a decrease of approximately 10 percent in hotel bed-nights of local residents, for whom there was a relatively higher price rise; the total number of bed-nights increased by more than 12 percent. Although the freeze on hotel construction was cancelled in the middle of 1977<sup>52</sup>, the growth rate of the number of hotel rooms for tourist has not yet been affected by this and it remained similar to last year. These changes in supply and demand of rooms brought about an increase in the occupancy of hotels. The demand for hotel rooms in Jerusalem during the peak season stood out in particular this year, and it was not possible to meet this demand.

There was an increase of about 10.7 percent in 1977 in the average number of employees in hotels, mainly due to the addition of rooms and the increase of their occupancy.

<sup>52</sup>In the course of the year more than 1600 rooms were added in tourist hotels, while the annual average addition was more than 100 rooms. Investments in the tourism infrastructure amounted to about IL 341 million in 1977/78 at current prices; of the sum about IL 191 million was invested in hotels (IL 162 million in 1976/77).