

CHAPTER XIII

TRANSPORT

THE VALUE of the gross output of the transport sector rose to about IL.300 million¹ in 1956. After allowing for the higher price level, this represents a real increase of 6.5 per cent, as compared with a real increase of 10.3 per cent during 1955.

The output of the various transport branches did not rise at a uniform rate, investments made during the previous years in railways, shipping and diesel trucks having contributed, in varying degrees, to an increase of real output. The output of railway transport grew in 1956 by 28 per cent, of shipping by 33 per cent and of diesel truck transport by 41 per cent.

In contrast to these three branches, increased investments in buses were not reflected by a rise in real output. On the contrary, output declined by 2 per cent during the year under review. This was due to two factors: First, the strike in August 1956, by two of the three passenger transport co-operatives in an attempt to strengthen their position in the negotiations for higher fares which they were conducting at the time with the Government; and second, the mobilization of motor vehicles for military duties during the Sinai campaign. The slight decline in the real output of civilian air-transport was mainly due to the ban on visits to Israel imposed on United States citizens in November 1956.

In November, 1956, the blockade of the Tiran Straits was broken and a short commercial route was thereby opened between Israel and East Africa, South Africa and the Far East. The lack of safe and regular sea and air communications had been one of the main causes of the failure to expand Israel's foreign trade with these parts of the world beyond the restricted volume of the past few years. However, the lifting of the blockade does not in itself suffice to confer upon Israel the economic advantages of this short sea route, which under certain circumstances may also enable transit shipments—especially of oil. For as long as the cost of overland transport from Eilat to the population and industry centres of Central and Northern Israel is at its present level, the advantages of this route will be slight. The full development of the sea routes between Israel and the countries of Asia and Africa via Eilat necessitates capital investments in modern harbour installations and a network of roads and railways in order to reduce the cost of land transport to that port.

¹ Based on the added value produced by the transport sector, which was estimated at 46 per cent of the sector's output in 1955.

TABLE XIII-1
Indices of Nominal and Real Output of the Transport Sector in 1956*
 (1955=100)

<i>Branch</i>	<i>Index of nominal change</i>	<i>Index of prices</i>	<i>Index of real change</i>	<i>Weight of the branch in the total output of the transport sector^b</i>
Motor Vehicles				
Buses	110.0	112.4	97.9	20.1
Other Vehicles (mainly trucks)	111.6	104.5	106.8	48.7
<i>of which: Diesel trucks</i>	147.4	104.5	141.1	5.9
Harbours	101.2	100.0	101.2	12.3
Railways	136.6	107.1	127.5	5.3
Shipping	144.5	108.6	133.2	6.1
Air Transport	103.0	103.3	99.7	7.5
<i>All Branches</i>	112.7	105.8	106.5	100.0

* Excluding the Armed Services and Postal Services.

^b Weighted in accordance with the added value of the product of the transport sector during 1954, as calculated by Dr. D. Creamer of the Falk Foundation for Economic Research in Israel and by the Central Bureau of Statistics.

SOURCE: Prepared by the Bank of Israel on the basis of data from various sources.

1. SHIPPING

(a) *Freight*

The dead-weight tonnage of the dry cargo fleet flying the Israel flag rose from an annual average of 134,000 tons in 1955 to 142,000 tons in 1956, while its average speed increased from 12.0 to 13.8 knots. The combined effect of higher speed and greater tonnage was an increase of 22 per cent in the carrying capacity of dry cargo, as compared with the 1955 level. As shown in table XIII-2, the amount of cargo carried by the Israel merchant fleet rose from 951,000 to 1,049,000 metric tons in 1955 and 1956 respectively. This 11 per cent increase is only seemingly smaller than that of carrying capacity, since the quantity of cargo in terms of metric tons does not fully reflect the real increase in the activity of the merchant fleet, as it does not show the distance over which the cargo was carried, nor its physical volume. In 1955, the difference between the increase in the tonnage actually carried (in terms of metric tons) and the rise in carrying capacity resulted from the shift to sailings on longer routes. In 1956, the difference was due to the increased share of cargo, the volume of which was greater in relation to its actual weight.

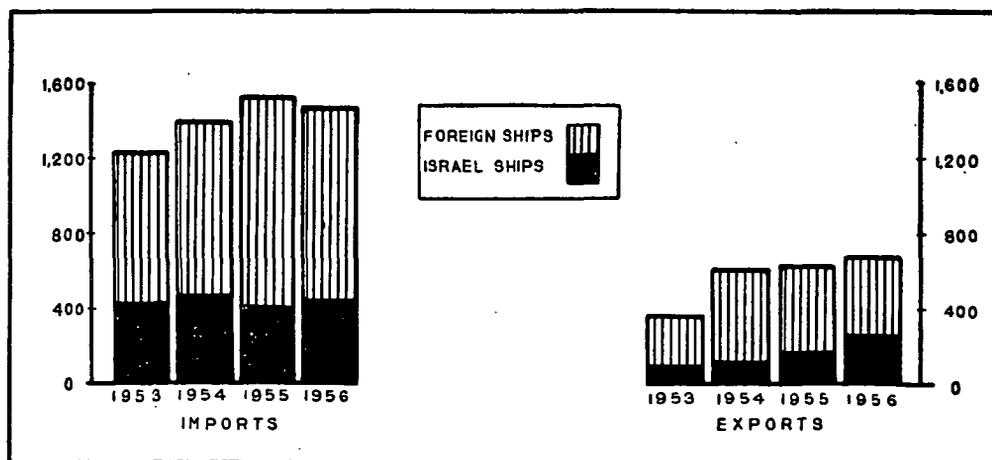
Similarly, the composition of imports into Israel in 1956 (at constant prices) points to a parallel change: Imports of investment goods, i.e. machinery and other industrial equipment, increased by 26 per cent, while imports of raw materials and consumer goods declined by 5 per cent. The change in the composition

TABLE XIII-2
Cargo Carried by Israel Ships, 1954-1956
(in thousands of metric tons)

<i>Type of cargo and year</i>	<i>Cargo carried to and from Israel</i>	<i>Cargo carried between foreign ports</i>	<i>Total cargo carried</i>
<i>Dry Cargo</i>			
1954	577	450	1,027
1955	576	375	951
1956	699	350	1,049
<i>Oil in Tankers</i>			
1954	10	—	10
1955	217	30	247
1956	341	21	362

SOURCE: Shipping Department, Ministry of Communications.

DIAGRAM XIII-1
Dry Cargo Carried to and from Israel by Israel and Foreign Ships, 1953-1956
(in thousands of metric tons)



of dry cargo reduced the total volume of imports in terms of metric tons by 4 per cent. This decline, and the 9 per cent increase in the carrying of imports by Israel ships, raised the proportion of dry cargo carried by ships flying the Israel flag from 26 per cent in 1955 to 30 per cent in 1956 (see table XIII-3 below).

Though the Israel fleet in 1956 included four tankers with an annual average capacity of 43,300 dead weight tons, the largest tanker, accounting for 45 per cent of the capacity of the entire tanker fleet, was carrying wheat and not oil.

The increase in the quantity of oil transported by Israel tankers to 362,000 tons during 1956 was, in fact, due to the addition of one tanker to the two operating in 1955. Total oil imports during 1956 were 13 per cent lower than in 1955, as a result of the suspension of oil shipments from the Soviet Union and the shipping crisis following the blocking of the Suez Canal in November 1956.

TABLE XIII-3
Maritime Cargo Shipped to and from Israel, 1955 and 1956
(in thousands of metric tons)

<i>Year and flag</i>	<i>Dry cargo</i>			<i>Fuel imports</i>
	<i>Imports</i>	<i>Exports</i>	<i>Total</i>	
1955				
<i>Total—All Flags</i>	1,525	640	2,165	1,458
<i>Israel Flag</i>	401	175	576	217
<i>Percentage under</i>				
<i>Israel Flag</i>	26	28	27	15
1956				
<i>Total—All Flags</i>	1,471	699	2,170	1,275
<i>Israel Flag</i>	439	260	699	341
<i>Percentage under</i>				
<i>Israel Flag</i>	30	37	32	27

SOURCE: Shipping Department, Ministry of Communications.

The ratio of exports to imports carried by Israel merchant vessels increased from 44 per cent in 1955 to 59 per cent in 1956. As a result of this better balance between freights to and from Israel, less transport of cargo between foreign ports was required in order to utilize the carrying capacity of the Israel vessels in both directions. In fact, the amount of cargo carried by liners between foreign ports declined from 260,000 tons in 1955 to 160,000 tons in 1956.

(b) *Passenger and Immigrant Transport*

The first stage in the expansion of the Israel passenger fleet ended in March, 1956. During that month, the s/s "Zion" joined her sister ship the s/s "Israel" on the passenger route to North Africa. The operation of these two ships on the American line made it possible to operate the s/s "Jerusalem" exclusively on the Mediterranean lines, together with the s/s "Artza" and the s/s "Negba".² The second stage in the development of the passenger service will be completed when the two ships now plying the Mediterranean routes will be replaced by two new ones—the s/s "Theodor Herzl", which will start its regular sailings in May 1957, and, some months later, the new s/s "Jerusalem".

² The s/s "Negba" was sold in November 1956, at the end of the tourist season.

Competition between the companies operating the Mediterranean passenger lines increased in 1955. In addition to the three Israeli ships, three Italian and one French ship plied the Israel–Europe line. However, in 1956 two of these passenger ships—one French and one Italian—suspended their sailings to Israel.

Table XIII-4 shows the movement of immigrants³ and passengers to and from Israel, according to the various shipping lines:

TABLE XIII-4
*Passenger and Immigrant Traffic to and from Israel, by Shipping Lines,
1954-1956*

	<i>Passengers</i>				<i>Immigrants on Mediterranean lines</i>
	<i>All lines</i>	<i>Mediterranean lines^a</i>	<i>North American lines</i>	<i>Turkish and other lines</i>	
1954: Israel Ships	28,800	24,300 ^b	4,500	—	8,600
Percentage	60	62	—	—	68
Other Ships	19,400	14,900	—	4,500	4,100 ^c
Percentage	40	38	—	—	32
<i>Total</i>	48,200	39,200	4,500	4,500	12,700
1955: Israel Ships	33,000	28,300 ^b	4,600	—	19,600
Percentage	60	63	—	—	57
Other Ships	21,500	16,800	—	4,800	14,500 ^c
Percentage	40	37	—	—	43
<i>Total</i>	54,500	45,100	4,600	4,800	34,100
1956: Israel Ships	39,700	33,900 ^b	5,800	—	36,400
Percentage	70	78	—	—	77
Other Ships	16,900	9,500	—	7,400	10,800 ^c
Percentage	30	22	—	—	23
<i>Total</i>	56,600	43,400	5,800	7,400	47,200

^a Mainly French and Italian.

^b Including 600 passengers in 1956, 4,000 in 1955, and 400 in 1954 who sailed on foreign ships chartered by an Israel company.

^c Including 9,500 immigrants in 1956, 12,800 in 1955, and 4,000 in 1954 who sailed on foreign ships chartered by an Israel company.

SOURCE: Prepared by the Bank of Israel on the basis of data from various sources.

³ Immigrants whose fares were paid by the Jewish Agency. Immigrants who paid for their own tickets are included among ordinary passengers as they were free to choose the company by which they travelled.

The number of passengers on Israel ships increased in 1956 following the reduction in the scale of operations of the four foreign ships. Two of these ships were withdrawn from service and the sailings of the other two foreign ships to Israel were suspended during the Sinai campaign in November 1956.

Two combined cargo and passengers vessels, the s/s "Israel" and the s/s "Zion", were plying the Israel-North America line in 1956. The number of passengers on this line, including passengers carried between foreign ports, rose by 4 per cent, from 5,000 to 7,200 in 1955 and 1956 respectively.

Of the 34,100 immigrants who arrived in Israel by sea during 1955, 14,500, or 43 per cent, travelled on foreign ships. Immigrant traffic expanded and reached 47,200 in 1956, which should normally have increased the percentage share of foreign ships. The s/s "Zion" was, however, put into service on the Israel-North America line in March 1956, thus permitting the s/s "Jerusalem" to be used exclusively on the Mediterranean line. The proportion of immigrants travelling by foreign ships in 1956 was therefore reduced to 23 per cent.

(c) *Freight Rates and Locally Added Value*

The rise in freight rates, which had begun in 1953, continued in 1956. However, most of the higher rates were introduced in shipping branches in which the Israel fleet is still operating on a restricted scale—namely in tramp freights and oil tankers. On the regular shipping lines, where most of the activity of the Israel merchant fleet is concentrated, freight rates for dry cargo rose by 10 per cent in 1956. This increase was partly due to changes in the composition of the cargo. On the other hand, tramp shipping freight rates for single sailings rose by 23 per cent and for sailings under charter for a fixed period⁴ by 33 per cent.

A 9 per cent rise in ordinary passenger fares during 1956 adversely affected the anticipated revenue of the fleet, since the raising of the travel tax applied to maritime traffic only.⁵ Immigrant fares declined by an average of 7 per cent during 1956⁶.

The higher freight charges (in so far as Israel merchant vessels benefited from them), the larger volume of passenger and immigrant traffic, as well as the increase of dry cargo and oil carried by Israel ships increased the receipts of the Israel fleet from IL.32.1 million in 1955 to IL.46.5 million in 1956. With the increase in output, the value added locally in foreign currency also rose by 38.5 per cent—from \$5.1 million in 1955 to \$7.1 million in 1956. The latter increase was accompanied by a decline in the ratio of locally added value to total receipts, from 28.7 per cent in 1955 to 27.5 per cent in 1956.

⁴ According to the Index Numbers of Tramp Shipping Freights, Chamber of Shipping of the United Kingdom.

⁵ See Note 8 on Page 240.

⁶ After the approval of the new agreement between the "Zim" shipping company and the Jewish Agency, immigrant fares are expected to be raised retroactively from October, 1956.

Since the profits of Israel shipping companies remained on a normal level in 1955 and 1956, while the prices of the services they supplied did not exceed the alternative rates prevailing on the international market, the cost of \$1 saved remained approximately IL.1.800 during both years.

TABLE XIII-5
Receipts and Added Value in Foreign Currency from Israel Shipping,
 1955 and 1956*
 (in \$ thousands)

<i>Item</i>	<i>1955</i>	<i>1956</i>
Receipts ^b	17,848	25,823
Expenditure		
in Foreign Currency	8,454	13,894
in Foreign Currency Equivalent	4,267	4,828
	12,721	18,722
Added Value in Foreign Currency	5,127	7,101

* For an explanation of the method of calculation see Chapter XII, Bank of Israel Annual Report 1955, Jerusalem, Sivan 5716—May, 1956.

^b Excluding taxes.

SOURCE: Prepared by the Bank of Israel on the basis of data from shipping companies.

Wage payments in foreign currency declined, because of the larger proportion of Israeli seamen employed by the fleet. The foreign currency expenditure on fuel and repairs in foreign harbours relative to other operating costs was reduced as a result of the renewal of the fleet. However, the smaller expenditure on these items did not compensate for the higher foreign currency cost of administration and interest.

The increase in the amount of interest actually paid in foreign currency, from \$500,000 in 1955 to \$1,250,000 in 1956, was the result of the methods by which shipbuilding for the Israel fleet is financed. Most of the ships were built or purchased on credit, the larger part of which was provided within the framework of Reparations, and the remainder was financed by banks and other financial institutions abroad. Payments of principal and interest on account of Reparation loans have also to be made in foreign currency, and in 1956 the Government received \$610,000 in such interest payments alone.

(d) *Development of the Fleet*

The plans for the development of the Israel merchant fleet were divided into two major stages—renovation and expansion. The objective of the first stage was the replacement of old and unsuitable ships by modern ones, constructed in accordance with the special requirements of Israel's maritime trade routes.

Most of the ships ordered at this stage were passenger and general cargo ships, required for sailings on regular lines. This stage has in fact already been completed. All the other ships, apart from the s/s "Theodor Herzl" and the new s/s "Jerusalem" which will enter regular service during the course of 1957, had been delivered by the end of 1956.

When the first orders for the building of ships under the Reparations Agreement were placed in 1953, the average age of the Israel merchant fleet was 21 years. By the end of 1956, the average age of the fleet had been reduced to 15 years. The age structure of the Israel fleet is given in table XIII-6.

TABLE XIII-6
Age Structure of the Israel Fleet, 1955 and 1956

<i>Age group</i>	<i>1955</i>			<i>1956</i>		
	<i>Number of ships</i>	<i>Gross tonnage</i>	<i>Per cent of total tonnage</i>	<i>Number of ships</i>	<i>Gross tonnage</i>	<i>Per cent of total tonnage</i>
0 to 5 years	12	45,200	34.9	12	62,600	46.2
6 to 10 "	2	4,400	3.4	5	11,300	8.3
11 to 20 "	7	20,000	15.4	5	22,300	16.4
Over 20 "	13	60,000	46.3	8	39,500	29.1
<i>Total</i>	34	129,600	100.0	30	135,700	100.0

SOURCE: Prepared by the Bank of Israel on the basis of data from the Shipping Department of the Ministry of Communications and shipping companies.

The expansion during the second stage will be characterized by a reduction in the number of general cargo ships, while the number of tankers and of ships suitable for carrying bulk cargoes within the framework of the international tramp trade will be increased. Upon the completion of all orders placed with foreign shipyards, Israel will possess a modern merchant fleet with a total deadweight tonnage of over 600,000 tons, as compared with 175,000 deadweight tons in December 1956. The tonnage and types of ships ordered within the framework of the Reparations Agreement, as well as the total investment in them are given in table XIII-7.

Of the 50 ships ordered within the framework of the Reparations Agreement, 16 passenger and cargo ships, valued at \$41 million, had been delivered by May 1956. They totalled 113,000 deadweight tons (or 102,000 displacement tons). The remaining 34 ships will be delivered between 1957 and 1963.

TABLE XIII-7

Ships Ordered Under the Reparations Agreement, prior to 1 March 1957

<i>Type of Ship</i>	<i>Deadweight tonnage</i>	<i>Investment in \$ thousands</i>	<i>Percentage of total investment</i>
Combined Passenger & Cargo	22,880*	22,500	17.8
General Cargo	104,280	31,038	24.5
Bulk Cargo	270,460	52,892	41.7
Tankers	95,300	17,785	14.0
Refrigeration and Gas	1,900	2,499	2.0
<i>Total</i>	494,820	126,714	100.0

* Gross Registered Tonnage—36,700 tons.

SOURCE: Prepared by the Bank of Israel on the basis of data received from the Shipping Department, Ministry of Communications.

(e) *Tramp Shipping*

The tendency to develop the fleet in the direction of tramp trade reduces the relative proportion of net foreign currency income. Other conditions being equal, the percentage of added value is higher in the case of ships which return frequently to the home port, i.e. chiefly passenger ships and freighters operating on regular lines. Frequent calls at Israel ports involve more purchases of supplies or repair work at home, thus employing domestic factors of production. Similarly, the proportion of foreign currency in wages paid to seamen is reduced. The larger foreign currency expenditure involved in the operation of tramp shipping reduces the share of locally added value in total receipts compared with liners. This decline in the proportion of locally added value does not, however, raise the cost of \$1 saved, for as long as Israel ships are operating at a normal rate of profit, the cost of \$1 saved will remain equal to the official exchange rate of the dollar, and should profits increase beyond the normal rates, the cost of \$1 saved will even fall below the official exchange rate.

The development of shipping as a source of foreign currency revenue by exploiting the advantages of liners in this respect has necessarily limited prospects. The limitation is in the restricted quantities of cargo constituting Israel's foreign trade, of which a sizeable proportion will always be carried by foreign ships. An expansion of the foreign currency revenues from shipping can therefore only come from the tramp and tanker-trade.

2. INTERNATIONAL AIRLINES

During 1956, the Government decided the far-reaching modernization of the flying equipment of the "El Al" Israel Airways Corporation. The deficit of this company amounted in 1956 to IL.3.7 million. As shown in table XIII-8

the added value in foreign currency was \$800,000 and the cost of each dollar saved—IL.6.500.

TABLE XIII-8
*Receipts and Added Value in Foreign Currency^a from
Civil Aviation Services on International Routes in 1956*
(in \$ thousands)

<i>Item</i>	<i>1956</i>
<i>Total Receipts^b</i>	8,194
<i>Expenditure:</i>	
<i>In Foreign Currency Equivalent</i>	500
<i>In Foreign Currency^c</i>	6,913
<i>Added Value in Foreign Currency</i>	781
<i>Expenditure in Local Currency</i>	5,055
<i>Cost of \$1 Saved in IL.</i>	6,473

^a An explanation of the method of calculation is given in Chapter XII, Bank of Israel Annual Report, 1955, Jerusalem Sivan, 5716—May, 1956.

^b Excluding taxes.

^c Includes payments of interest in foreign currency to the Government and to financial institutions in Israel and abroad.

SOURCE: Prepared by the Bank of Israel on the basis of data from "El Al".

Because of the obsolescence of its aircraft, an increase in the operating costs of "El Al" and a decline in its revenue was to be expected. Since air travel fares are the same in all I.A.T.A. aviation companies, competition between them manifests itself in the improvement of aircraft, advertising and increased passenger comfort. Competition on international air routes is very severe, and any company content to rest on its laurels finds it difficult to maintain its position. Other conditions being equal, passengers prefer to fly with companies operating large and modern aircraft, which are faster and more comfortable.

The combined effect of these factors would have been that the continued operation of El Al's existing aviation equipment—i.e. four "Constellation" aircraft of the 1945 type—would have caused an increase in the company's losses. In order to avoid, or at least minimize, these losses in future the Government considered three possibilities: (a) the outright liquidation of the company; (b) the restriction of flights to Europe; (c) the continuation of full operations, including transatlantic routes.

Having decided, for political and security reasons, to maintain "El Al" in existence, it became necessary to find an operating method that would minimize losses. The annual loss involved in operating the three old "Constellation" aircraft on European flights has been calculated to exceed by IL.4 million that incurred by operating four "Britannia" type aircraft which would also have to fly on the transatlantic routes.

Experience has shown that aviation companies which operate without any, or with negligible, loss owe their success to the high-frequency operation of numerous aircraft. Only this system permits the reduction of fixed costs in terms of passenger-miles and ton-miles. These overheads—administration, depreciation, interest, insurance and advertising—represented in the case of “El Al”, about 55 per cent of the total operating costs in 1956. A small air company like “El Al” cannot, owing to the small number of aircraft at its disposal, spread the overheads over a large volume of passenger and freight traffic. In order to compensate for the advantage of the great airway companies, “El Al” must therefore reduce its expenditure per passenger-mile and ton-mile, especially by cutting the flying costs of the aircraft themselves relatively to the number of passengers and the quantity of freight. The reduction of flying costs per passenger-mile and ton-mile requires the employment of large and up-to-date aircraft. These have the additional advantage of enabling flying equipment to be utilized to a higher degree, thus increasing the net income of the company. A small air company must exploit the fact that passengers prefer to fly in larger and more modern aircraft, and must endeavour to forestall the big companies in the introduction of such aircraft. By being ahead of its competitors in the field of technical innovation, the company can retain an important advantage in the competition for passengers.

Though this is the only way in which a small company can gain certain advantages over its big competitors, it undoubtedly involves a risk. Any technical defect that may be discovered in new types of aircraft will damage the operating capacity of a small company much more than that of a large one which has a greater number of planes at its disposal.

The large “Britannia” aircraft are today considered by civil aviation services as the fastest and most modern. The first aircraft of this type were put into service by the British Overseas Airways Corporation in February 1957, for the time being on lines where they will not compete with “El Al”. The delivery of these aircraft has been delayed owing to strikes in the United Kingdom; the first three will fly on “El Al” lines only in September 1957, while the fourth “Britannia” will be delivered during the winter of 1958.

“El Al” is the second company to have ordered and received “Britannia” aircraft. This fact gives it an advantage in flying equipment over most aviation companies operating on the transatlantic routes. However, this advantage will gradually diminish as its competitors will also introduce larger and even more modern aircraft. Nevertheless, “El Al” esteems that some three or four years will pass before competition re-establishes a situation in which the “Britannias” which are now to be put into service will cease to constitute an attraction for prospective passengers.

The decision to operate Israel’s civil aviation services with four “Britannias” involves an investment of IL.41 million, nine-tenths of which is in foreign currency. There are reasonable prospects that this investment will enable

“El Al” to function without incurring continuous losses, and there is some hope that the company may be able to accumulate from its own resources a considerable part of the capital required for re-investment in the future without resorting to Government assistance.

Until the arrival of the fourth “Britannia” in the winter of 1958, “El Al” will continue to operate three of the existing “Constellations”, together with its three new aircraft. Due to the late delivery of the fourth “Britannia” aircraft, the full effect of the new planes on the financial returns from “El Al” operations will only be felt by the end of 1958.

During the year under review, the share of “El Al” in the total passenger traffic to and from Israel remained at the level of the preceding years—42 per cent. In addition to these passengers, the company carried 5,200 passengers between foreign countries and brought 760 immigrants to Israel in co-operation with other aviation companies.

The ban on visits to Israel imposed on citizens of the United States in November 1956⁷ reduced the number of passengers carried by “El Al” from that country. However, the suspension of flights by other companies (except for “Air France”) for a period of 10 to 14 days during the Sinai campaign increased the number of “El Al” passengers from European countries. The share of “El Al” in air-passenger traffic to and from Israel is likely to be increased after the “Britannias” are put into service in September 1957, and as a result of the re-opening of the line to South Africa, following the resumption of traffic through the Straits of Tiran.

The total passenger traffic to and from Israel, by sea and air, totalled 138,000 in 1956, as against 132,000 in 1955. Had it not been for the ban on visits to Israel by U.S. citizens in November, the number of travellers in 1956 would certainly have been greater.

There was no change in the relative shares of sea and air services within total passenger traffic to and from Israel during 1956, as compared with 1955. This stability was apparently the result of two factors operating in opposite directions: on the one hand, modern passenger ships flying the Israel flag had already started to ply the Israel-North America line. On the other hand, effective fares of sea travel rose as a result of the modified travel tax, which is now proportionate to the price of the ticket and not progressive, as before. There was no similar change in the price of air travel⁸ and the improved service, which

⁷ The ban was lifted in April, 1957.

⁸ Until May 30th, 1956, travel tax on air tickets and first-class sailing tickets amounted to 20 per cent of the fare, while second-class sailing tickets were taxed at 15 per cent, and third-class or fourth-class tickets were tax-exempt. From May 31st, 1956, until December 6th, 1956, all classes of sea and air travel were taxed at 25 per cent of the ticket price. After the latter date, the tax was raised to 33.3 per cent, following the imposition of the Defence Tax.

was likely to increase the share of ships in total passenger traffic, was thus offset by the relatively higher price of the boat fare.

TABLE XIII-9

Passenger and Freight Traffic to and from Israel on Israel and Foreign Airlines, 1954-1956

<i>Year and companies</i>	<i>Passengers</i>		<i>Immigrants*</i>		<i>Freight and mail</i>	
	<i>number</i>	<i>per cent</i>	<i>number</i>	<i>per cent</i>	<i>tons</i>	<i>per cent</i>
1954						
In Israel Aircraft	26,200	41	3,812	100	984	63
In Foreign Aircraft	38,500	59	—	—	574	37
<i>Total</i>	<i>64,700</i>	<i>100</i>	<i>3,812</i>	<i>100</i>	<i>1,558</i>	<i>100</i>
1955						
In Israel Aircraft	31,400	41	334	100	708	50
In Foreign Aircraft	46,000	59	—	—	708	50
<i>Total</i>	<i>77,400</i>	<i>100</i>	<i>334</i>	<i>100</i>	<i>1,416</i>	<i>100</i>
1956						
In Israel Aircraft	33,800	42	760	100	720	47
In Foreign Aircraft	47,200	58	—	—	810	53
<i>Total</i>	<i>81,000</i>	<i>100</i>	<i>760</i>	<i>100</i>	<i>1,530</i>	<i>100</i>

* For a definition of immigrants see note 3 on page 233.

SOURCE: Prepared by the Bank of Israel on the basis of the reports of "El Al" and data from the Central Bureau of Statistics.

TABLE XIII-10

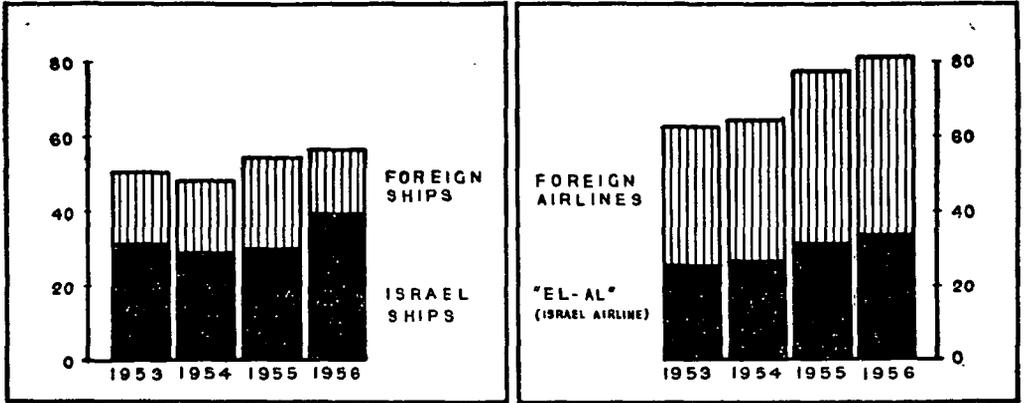
Passenger Traffic (excluding Immigrants) to and from Israel by Sea and Air, 1954-1956

<i>Year</i>	<i>Total number of passengers</i>	<i>Passengers travelling by sea</i>		<i>Passengers travelling by air</i>	
		<i>number</i>	<i>per cent of total</i>	<i>number</i>	<i>per cent of total</i>
1954	112,900	48,200	43	64,700	57
1955	131,900	54,500	41	77,400	59
1956	137,600	56,600	41	81,000	59

SOURCE: Prepared by the Bank of Israel on the basis of data from shipping companies and airlines.

DIAGRAM XIII-2

Passenger Traffic to and from Israel by Sea and Air, 1953-1956
(Thousands of passengers)



3. LOCAL AIRLINES

The "Arkia" Airways Company, which operates on local routes—at present between Lydda and Eilat—doubled its passenger traffic during 1956 as compared with the preceding year. The rapid development of Eilat after the opening of free passage for ships and aircraft through the Straits of Tiran in November 1956, created the necessary pre-conditions for a continued increase in the activities of "Arkia" in future years.

TABLE XIII-11

Passenger and Freight Traffic on Internal Israel Airlines, 1954-1956

Year	Number of passengers	Quantity of freight (tons)
1954	10,500	330
1955	11,700	350
1956	23,300	360

SOURCE: Reports of the "Arkia" Airways Company.

The year 1956 saw important changes in the aviation equipment of the "Arkia" company. The two "Rapide" aircraft and the "Commando" aircraft which had been in service in 1955 were replaced in April 1956 by two "Dakotas". Two further "Dakota" aircraft will be put into service during

May and June 1957, in order to increase the number of daily flights from three in 1956 to five or six in 1957.

The investments in aviation equipment and the doubling of passenger traffic enabled "Arkia" to end the year 1956 without a loss. Since fares and freight charges have been fixed on the basis of actual operating costs, there are good prospects that, unless costs rise considerably, the financial situation of the company will improve as its services will be extended during 1957.

4. ISRAEL RAILWAYS

(a) *The Level of Activity*

The volume of goods carried by Israel Railways in terms of ton/kilometres rose by 27.7 per cent during the fiscal year 1956/57—as compared with a 12 per cent increase during 1955/56. The larger increase was mainly due to the freight service on the Na'an–Beersheba line, which was opened to regular traffic at the end of March 1956. This line constitutes the first part of a future railway link with Oron, where most of the Negev quarries and mines are situated. Its length is 74 kilometres, and IL.10 million were invested in its construction. For the completion of the line to Oron, the present track will have to be lengthened by a further 64 kilometres.

The expansion of passenger traffic in previous years continued in 1956/57. The number of passenger/kms. rose by 33.2 per cent, as against a rise of 16.2 per cent in 1955/56.

TABLE XIII-12

Passenger and Goods Traffic on Israel Railways, 1954/55–1956/57

Fiscal year	Goods Traffic		Passenger Traffic	
	thousands of tons	millions of ton/kms	thousands of passengers	millions of passen./kms
1954/55	1,299	122.0	3,060	211.7
1955/56	1,377	136.7	3,391	246.1
1956/57*	1,532	174.6	4,551	327.9

* Data for March 1957 are estimates.

SOURCE: Reports of the Israel Railways Management.

(b) *The Deficit*

The increased activities of the railways were accompanied by an improvement in the ratio between receipts and expenditure. Operating costs and depreciation represented 147.0 per cent of total receipts in 1955/56, but only 133.8 per cent in 1956/57. If imputed interest on investment capital (amounting to an average of IL.43.4 million in 1956/57) at the rate of 8 per cent per annum

is added to the railways' expenditure⁹ the latter will be found to represent 194.0 per cent of receipts in 1955/56 and 181.2 per cent in 1956/57.

TABLE XIII-13
Receipts and Expenditure of Israel Railways, 1954/55-1956/57
(in IL. thousands)

<i>Period</i>	<i>Operating costs, or variable costs</i>	<i>Operating costs and depreciation</i>	<i>Operating costs, depreciation and imputed interest^a</i>	<i>Receipts</i>
1955/56	7,397	7,966	10,513	5,418
Index of Expenditure (in per cent of receipts)	136.5	147.0	194.0	100.0
1956/57	8,892	9,803	13,278	7,329
Index of Expenditure (in per cent of receipts)	121.3	133.8	181.2	100.0

^a Imputed interest at 8 per cent per annum, as included in the balance sheets of Israel Railways.

SOURCE: Prepared by the Bank of Israel on the basis of reports of the Railway Management.

The deficit presently being incurred by the railways warrants only a very qualified judgment concerning the profitability of their operation—regardless of whether the matter is examined from the long-term aspect of the railways themselves, or by comparison with alternative means of transport. No exhaustive, comparative calculation has yet been made in this country considering all the factors likely to determine the relative profitability of the railways and motor-transport for the economy as a whole. Being a public utility, the deficit operation of the railway does not necessarily prove that factors of production are not being used optimally and that the economy is incurring a loss. The function of the railways is to supply transport services as cheaply as possible compared with alternative means, though they must also strive to minimize their costs.

The main causes of the deficit of Israel railways are, on the one hand, the small quantities of goods carried, and the rationalization problems which emer-

⁹ The rate of interest in the Israel economy is not determined by the free interplay of supply and demand but is fixed at a legal maximum rate, on the one hand, and by the actual rate of interest charged by the Government—the largest lender—on the other hand. For the purpose of assessing the financial situation of the enterprises, we have therefore no option but to impute interest arbitrarily—a rate of 8 per cent per annum seeming reasonable. This rate, however, is insufficient to compensate for a possible decline in the purchasing power of money.

ged during the process of replacing steam by diesel locomotives and, the schedules of fares and freight tariffs now in force, on the other hand.

(c) *Volume of Freight and Level of Costs*

As shown in table XIII-13, the expenditure of the railways rose to about IL.13.3 million in the 1956/57 fiscal year and a deficit of IL.6 million was incurred, of which IL.4.4 million are accounted for by depreciation and imputed interest. This is the result of investments made mainly during the last three years, which were motivated not by the present volume of passenger or goods traffic but rather by the anticipated traffic. Similarly, the decision to begin the construction of the railway line to the Negev (for the time being, of the Na'an-Beersheba section) was based on the expectation of large-scale loads of phosphates, potash and other Negev minerals. Data relating to this new line clearly illustrate the major factors responsible for the expenditure level of the railways per unit of freight carried. The investment in the Na'an-Beersheba section, including the track and other fixed installations, totalled approximately IL.10 million. On this basis, depreciation and imputed interest amounted to about IL.953,000 per annum. According to the cost pattern of 1955/56, annual maintenance of this track amounts to about IL.140,000 and the cost of traffic management totals IL.61,000. For the purpose of this analysis it is assumed that the additional line and the increase in freight resulting from its operation do not involve an increase in the administrative costs of rail transport. In 1956/57 the Na'an-Beersheba line carried about 180,000 tons of goods, or 13.6 million ton/kms. The anticipated volume of traffic on the basis of which it had been decided to construct the Negev line, was 400,000 tons per annum or more. Table XIII-14 compares the costs of rail haulage in prutot per ton/km. on this section of the line according to the two above-mentioned volumes of freight on the basis of actual expenses during 1956/57.

The running costs of rolling stock on the Na'an-Beersheba line totalled 18.34 prutot per ton/km during 1956/57. The doubling of the present volume of traffic would not require a corresponding increase in the number of locomotives and wagons, since the traffic expansion would enable a more efficient organization of trains. Higher efficiency in freight traffic management, following the increase in freight volume, would reduce the running costs of rolling stock, while overheads would also fall below the 61 prutot per ton/km cited in table XIII-14. It follows that an increase in the quantity of goods carried, from 180,000 to 400,000 tons per annum, would approximately halve the costs per ton/km. The investment in the Negev railway line will be worth while for the Israel economy only if the quantities of freight will be sufficient to reduce costs per ton/km below the relevant alternative costs of road haulage. From the viewpoint of investment, carrying capacity is being utilized to a very limited degree not only in the case of the Negev line, but throughout the existing railway system.

TABLE XIII-14

Estimate of Rail Haulage Costs in Prutot per ton/km on the Na'an-Beersheba Line, based upon Actual Expenditure in 1955/56 (Diesel locomotives only)

<i>Item of costs</i>	<i>Annual quantity of goods transported</i>	
	<i>180,000 tons</i>	<i>400,000 tons</i>
Amortization and imputed interest ^a	70.07	31.77
Administration	3.82	3.49
Track Maintenance	10.38	4.71
Traffic and Stations	4.49	2.68
Rolling Stock ^b	18.34	18.34
<i>Total</i>	<i>107.10</i>	<i>60.99</i>

^a Imputed interest at the rate of 8% per annum.

^b Including depreciation.

SOURCE: Prepared by the Bank of Israel on the basis of data from the Railway Management.

The share of depreciation, imputed interest and other fixed costs in the total costs of the railways was some 72 per cent in 1955/56. This high proportion of fixed costs indicates that the way to reducing the railways' costs per ton/km and passenger/km lies mainly in increasing the volume of traffic. Given prevailing production costs and equipment, the Israel railway system is in the range of decreasing average costs. But in order to achieve a larger volume of traffic, further complementary investments in the extension of the railway network are required, for the addition of track in one section tends to increase the quantity of goods carried also in most other sections. Thus, for example, the extension of the Na'an to Beersheba line has at the same time made for a larger amount of haulage on the Na'an-Haifa line.

(d) *The Difficulties of Rationalization*

The decline in the ratio between costs and revenue, in the case of Israel Railways, was due to the increase in the volume of freight, as well as to the modernization of railway equipment. This has been carried out chiefly by replacing the old steam locomotives by diesel locomotives and self-propelled carriages, with consequent considerable reduction in operating costs. The fall in running costs is particularly conspicuous in view of the great price increase of production factors. Fuel and wages, which together constitute almost the entire operating costs of locomotives, rose in 1955/56 by 14.3 and 12.2 per cent respectively. But the fact that the replacement of old locomotives is not being exploited—particularly with regard to the possibilities of labour saving—has caused the overall reduction in the deficit to be smaller than if full advantage had been taken of the new

equipment. A further cutting of operating costs of locomotives will require the adaptation of the number and skill of workers to the new equipment. Such an adjustment has been carried out only to a limited extent. Because of the difficulty of dismissing workers, the management has in many cases been forced to retain employees who had been on the railway staff prior to the replacement of steam locomotives, although these workers may not always have been suitable for their new tasks. With regard to certain tasks the railway management cannot reduce the number of employees, nor can it impose a multiplicity of tasks on one man in small railway stations (such as, e.g., the operation of the new shunting engines). From the technical point of view, only one worker is required to operate this engine, but the railway management is being forced to employ two men for this purpose.

The operational changes in the railways make it imperative to find a solution to the problem of rationalization. Otherwise, the railways will not be able to continue reducing their costs through the use of the modern equipment which has been put at their disposal with this very end in view.

(e) *Tariffs*

The determination of tariffs on the Israel Railways (which is a state-owned public utility) cannot be governed exclusively by marginal costs, as this would entail persistent loss operations. Hence, when fixing freight tariffs, considerations of financing this deficit within the framework of the fiscal system in general must also be taken into account. In fact, no comparative study has ever been made to determine the optimum tariff schedule. Such a study would also enable an efficient allocation of the available volume of goods traffic between the railways and motor transport.

Apart from rates for citrus fruit¹⁰ the freight tariffs of the Israel Railways have remained unchanged since April, 1954¹¹. In April, 1957, the tariffs for road haulage exceeded those of rail transport (including portorage and the cost of supplementary transport within a 10-kilometre radius from the station) by 72 per cent on the Haifa-Tel Aviv line, and by as much as 105 to 109 per cent on the Haifa-Beersheba and Haifa-Jerusalem lines.

This policy of low rail freight charges has two purposes: first, it enables the Government to restrain to a certain extent the rise in road haulage prices, and thus decelerates the rate of increase of goods' transport prices in the country. Secondly, the deficit of the railways, which is partly the result of the low charges, constitutes one of the instruments for the encouragement of exports and for maintaining stability in the prices of foodstuffs included in the "basket" of the

¹⁰ During the 1955/56 season, the freight charge for citrus fruit was raised from IL.2.704 per ton to IL.2.931 per ton, in view of the higher profits of citrus grove owners.

¹¹ The request of the railway management to raise freight charges is under consideration by the Ministerial Economic Committee as this report goes to press.

consumers' price index. However, there is no need to transport all types of goods at low tariffs in order to achieve these objectives.

In so far as it is desirable, from the point of view of the economy as a whole, to check price increases in the case of certain commodities, it is preferable to pay direct subsidies to the firms producing them. Direct, selective subsidies might have effected the same measure of stability in the prices of essential products and export goods, at the cost of a total expenditure of less than the deficit incurred by the railways through their low tariffs. It is also desirable that the present deficit of the railways be financed to a larger part by the users of the service, and to a smaller part by the taxpayer.

The railway management has requested permission to raise its freight tariffs to a varying extent, up to 30 per cent, depending on the type of goods and haulage distances. This selective increase in charges would not diminish the quantities of goods carried by rail, but would reduce the deficit by about IL.700,000. A rise in the price of certain export products and of other commodities included in the consumers' price index can be prevented by the granting of direct subsidies, amounting to a smaller total expenditure.

While freight tariffs have remained unchanged since 1954, the introduction of higher fares on inter-urban buses was followed by a corresponding rise in railway fares. The Government agreed to the raising of passenger fares since—in contrast to freight charges—these do not affect the consumers' price index, as they are not included in the "basket". Moreover, the maintaining of a differential between rail and bus fares does not exercise a restraining influence upon the general level of fares (as does the gap between road and rail haulage charges on general freight prices). In November 1955, passenger fares on Israel Railways were raised by 18 per cent (as compared with a rise of 10 per cent on the "Eshed" bus services), and in December 1956 there was a further increase of about 10 per cent. Although the November 1955 increase of rail fares exceeded that of bus fares on parallel lines by 8 per cent, the number of passengers carried by the railways in 1956 was 27 per cent greater than in 1955. This increase was at least partly due to the improved passenger train services. As a result of these improvements, the relative rise of the rail fare did not cause a fall in the number of passengers, as might have been feared.

It seems, however, that fares cannot be raised above their present level without reducing the number of passengers travelling by rail,—unless there is a parallel rise in the cost of travelling by bus. Since no information is available on the price elasticity of demand for railway travel, it is impossible to predict whether a fall in the number of passengers in consequence of a rise in the relative cost of rail travel would reduce the railways' income.