CHAPTER VIII

INVESTMENTS AND CONSTRUCTION

1. Main Developments

The downward trend in investments which began to be felt in some sectors in 1975 strengthened in 1976 and comprised all sectors except power. The extent to which nonresidential investments have fallen is emphasized when means of transport are excluded from these investments; it is then found that while in 1975 they were still growing at a 6 percent rate, in 1976 they dropped 14 percent. This drop is the outcome of two principal factors: (a) an intentional curtailment of investments which are carried out by the public sector and (b) reduced investments of the private sector following the slowdown in economic growth. Public sector companies are another important investment factor. Their investments, which shot up in 1975, continued to grow at a slower rate in 1976. This investment factor does not depend directly on governmental economic policy, nor is it immediately affected by current economic developments.

The public sector is defined here as comprising the government, local authorities, the National Institutions, nonprofit institutions and government enterprises. The drop in this sector's investments (they were down 15 percent on last year), reflects the government's policy of restraint. On the other hand, the level of the private sector's investments is determined endogeneously and depends on the growth rate of the GNP. The drop in the investments of the private sector has to be seen against a backdrop of deceleration in economic growth: a lower rate of GNP growth requires lower growth rates of capital stock, and declining growth rates of capital stock are obtained from falling levels of investment. Investments of the public sector companies were up seven percent, following an enormous increase in 1975. The slowdown in these investments reflects mainly the pace at which a number of large projects are carried out. These projects make up the bulk of this sector's investments[1].

Nonresidential gross capital stock grew during 1976 at a 6 percent rate, thus continuing the deceleration which began in 1974. It is worth mentioning that ever since the sixties,

[1] It is worth mentioning in this context the Committee of Director Generals of Ministries, which was appointed in order to examine the profitability of investments carried out by the public sector and to recommend, if necessary, the postponement of investment projects. This committee met throughout 1976, and even if in practice it did no more than trim down a number of projects, it may have contributed indirectly to delaying some of the investments.

TABLE VIII-1

GROSS AND NET INVESTMENT, 1974–1976

	1974	1975	1976	Annual increase or (-) decrease 1972	1973	1974	1975	1976
	(IL million, at current prices)			(percent, at 1970 prices)				
1. Gross fixed nondwelling investment (excl. ships and aircraft)	9,931	13,839	15,481	20.9	4.6	3.8	0	-12.1
2. Gross fixed nondwelling investment	10,610	14,096	15,718	6.1	13.2	-2.8	-3.8	-12.4
3 Depreciation in business sectors	4,526	7,146	9,835	11.3	9.7	11.1	10.5	9.1
4 Net fixed nondwelling investment (2)–(3)	6,084	6,950	5,883	2.9	15.5	-11.5	-15.0	-34.4
5 Gross investment in housing	6,932	8,630	8,323	27.6	6.3	-1.7	1.7	-16.9
6 Depreciation in housing	1,684	2,261	2,820	10.2	11.9	11.0	9.6	8.8
7 Net investment in housing (5)–(6)	5,248	6,369	5,503	33.0	4.9	-5.2	-0.9	-26.0
8 Total gross fixed investment (2)+(5)	17,542	22,726	24,041	13.4	10.5	-2.4	-1.8	-14.1
9 Increase in inventories	2,071	3,039	3,345	2.3	13.9	79.9	-2.5	-16.3
10 Total gross domestic investment (8)+(9)	19,613	25,765	27,386	12.7	10.7	2.7	-1.8	-14.4
11 Depreciation (3)+(6)	6,210	9,407	12,655	11.0	10.3	11.1	10.2	9.1
12 Total net investment (10)–(11)	13,403	16,358	14,731	13.4	11.0	-0.9	-7.7	-27.9

TABLE VIII-2

ESTIMATED FIXED INVESTMENT[a], BY TYPE OF INVESTOR, 1975–1976

	1975	1976	Changes in quantity 1974	1975	1976	Distribution 1972	1974	1976
	(IL million, at current prices)				(percent, at 1970)			
1. Government, local authorities and national institutions	2,602	2,899	0.3	3	-13	19	20	20
Government services	438	522	0.0	3	-10			
Services of local authorities	1,267	1,443	13.9	10	-12			
Roads	406	440	-24.2	-21	-14			
2. Government enterprises	1,186	1,178	-4.4	7	-23	11	10	9
3. Total of governmental sector (1)+(2)	3,788	4,077	-1.5	1	-16			
4. Investment of nonprofit institutions	1,138	1,347	-15.8	4	-9	10	9	9
5. Total (3)+(4)	4,926	5,424	-4.8	2	-15			
6. Public sector enterprises	1,799	2,438	-17.6	41	7	17	11	18
Electricity	780	1,107	4.0	21	9			
Public sector industrial enterprises	614	1,963	-13.2	113	27			
7. Private sector investments	6,093	6,211	13.5	1	-19	43	50	45
Agriculture	904	1,091	9.4	16	-4			
Industry	3,097	3,157	2.8	9	-18			
Services	1,592	1,651	27.3	-10	-19			
8. Total (6)+(7)	7,892	8,649	6.4	8	-14			
Total nondwelling investment	12,818	14,073	1.8	6	-13	100	100	100

[a] Excluding transport equipment.

only 1967 saw a lower rate of growth than in 1976. However, there is a great deal of difference between the growth rates of the various sectors then and now: capital stock in services, transportation and waterworks grew in 1967 at a faster rate than it did in 1976, while in other sectors the situation was reversed. Furthermore, it should be borne in mind that post-1967 there was a quick recovery of investments, while, considering the excess production capacity in agriculture, industry and construction in 1976, it is doubtful whether a recovery, such as followed the recession of the mid-sixties will take place in the next year or two.

During 1976 the following pattern of nonresidential investments emerged: their descent was concentrated in the second half of the year. The quarterly data show that investments in plant and equipment as well as in vehicles increased appreciably in the second quarter (Table VIII-3), a pattern which suggests that investments took place in advance of the introduction of VAT[2].

As for the composition of capital formation in 1976 – apart from means of land transport, all types investment assets showed a drop. Imported plant fell least and thus, direct imports continued to increase their share in total capital formation, and particularly in investments of plant and equipment. This trend is especially marked in industry, agriculture, and services, and it may indicate a process of structural change in these sectors. The share of imported plant in total investments of plant and equipment rose between 1970 and 1976 by 5 percentage points. In industry this share was up 6 points, in agriculture 20 points, and in services 10 points.

Investments in inventory were influenced by special factors: recession was expected; the rise in commodity prices and in the domestic rate of interest increased the cost involved in carrying inventories; and finally, inventory levels were adjusted to the slowdown in economic activity. After a considerable rise in inventory investments in 1974, they began to descend in 1975, and in 1976 their descent accelerated. A comparison of the actual imports of raw materials with the imports derived (according to input-output tables) from domestic economic activity indicates that in 1976 there was disinvestment in inventories of imported inputs.

Investments in housing were down 17 percent following a standstill since 1974. In residential construction starts the downward trend is even steeper, indicating a further drop in investments during the next years: in 1976 residential starts amounted to 32 thousand units compared to 51 thousand in 1975, a 37 percent drop, or, in terms of the peak level of 66 thousand start in 1972, a descent to half of that level.

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[2]In spite of the fact that authorized enterprises are entitled to be refunded for VAT on their investments; since the refund is not immediate it is quite possible that investors preferred to advance their acquisitions of plant and thus spare themselves unnecessary expenses. The uncertainty shrouding VAT before its introduction may have also contributed to advanced acquisitions.

TABLE VIII-3

INVESTMENT DEVELOPMENT BY QUARTERS, 1975–1976

(IL million, at 1970 prices)

	1975					1976				
	I	II	III	IV	Total	I	II	III	IV	Total
New construction	464	395	421	436	1,716	422	341	335	344	1,442
Imported plant & equipment	379	412	405	428	1,624	377	447	344	306	1,474
Plant & equipment from domestic production	199	198	206	194	797	170	207	132	145	654
Land transport equipment	68	74	53	100	295	96	105	48	64	313
Domestic total	1,110	1,019	1,085	1,158	4,432	1,065	1,100	859	859	3,823
Agriculture										
Construction	36	40	41	38	155	36	37	36	32	141
Plant & equipment (incl. livestock inventories)	50	54	54	59	217	63	72	37	44	216
Total	86	94	95	97	372	99	109	73	76	357
Industry										
Construction	57	51	57	54	219	52	49	43	38	182
Plant & equipment	221	246	251	222	940	197	272	186	190	845
Total	278	297	308	276	1,159	249	321	229	228	1,027

The sharp drop in 1976 is due to public construction, whose starts fell from 11.7 thousand units in the first quarter of 1975 to 1.4 thousand in the last quarter of 1976. Total public starts in 1976 were down 61 percent on total public starts in 1975. On the other hand, construction starts of private housing dropped only 7.6 percent in 1976, thus continuing the gentle descent of private construction which began in 1972.

The slump in the housing market worsened in 1976. Private contractors adapted themselves in time to the falling demand for housing (which began in 1973) by reducing their starts gradually ever since demand began to drop. By contrast, the public contracting companies were still increasing their starts in the first quarter of 1975, even though an inventory of unsold apartments (constructed by the public companies) was beginning to build up. This inventory grew in the course of 1976, and reached some 13,000 unsold apartments (according to the public housing companies). The cost involved in carrying such an inventory created grave liquidity problems both for the public housing companies and for their subcontractors. The situation deteriorated to such an extent that in the course of 1976 and at the beginning of 1977 the Ministry of Housing had to come to the companies' rescue a number of times, both by extending subsidized loans and by purchasing part of the stock of unsold apartments.

In addition to the drop in residential capital formation, nonresidential and defense construction fell too, and at similar rates to residential construction. It is estimated that the production of the entire construction sector was down some 17 percent on last year. The number of employed in the sector dropped 6 percent in 1976, and was some 14 percent lower compared to the peak level in the third quarter of 1973. So far the number of unemployed construction workers includes some 16 thousand Israelis and some 5,000 workers from the administered areas.

The latter were partly absorbed in construction work in the administered areas, following the expansion in construction which has been taking place there. The decreasing investments in building have also had some repercussions on industrial production destined as input for construction. In this group of industrial branches one notices a consistent fall of man-days worked since 1973. Cement consumption dropped by some 12 percent in 1976; however, the absolute level is still high in comparison to 1973. This might be explained, if only partially, by increased cement consumption in the administered areas due to the expansive construction there.

2. Investment by Economic Sector

A. Agriculture

Following an accelerated growth in previous years, investments in agriculture fell in 1976, although at a more moderate rate (4 percent) than total nonresidential investments. Among private sector investments – which are mainly investments in farming – the expansion in hothouse farming stands out. Thus, the long-term trend of developing

TABLE VIII-4

GROSS FIXED INVESTMENT BY SECTOR, 1975–1976

	1975	1976	Change in quantity					
			1971	1972	1973	1974	1975	1976
	(IL million, at current prices)					(percent)		
Agriculture	1,093	1,313	-1	23	0	12	14	-4
Water works	222	226	12	21	-18	-9	42	-22
Industry	3,711	4,120	10	11	-4	1	19	-11
Construction equipment	418	286	26	12	0	28	-13	-43
Electricity	780	1,107	-18	96	-8	4	21	9
Transportation and telecommunications	3,098	3,395	58	-16	39	-19	-31	-15
a) roads	(406)	(440)	(5)	(32)	(11)	(-24)	(-21)	(-15)
b) motor vehicles	(1,021)	(1,408)	(1)	(23)	(21)	(10)	(-43)	(-6)
c) ships and aircraft	(257)	(237)	(219)	(-73)	(222)	(-55)	(-73)	(-20)
Trade and services	4,774	5,271	10	17	12	8	-1	-14
Total	14,096	15,718	22	6	13	-3	-4	-12
Total (excl. means of transport)	12,818	14,073	10	21	2	3	6	-14
Total (excl. ships and aircraft)	13,839	15,481	9	21	5	4	0	-12
Housing	8,630	8,323	20	28	6	-2	2	-17
Total fixed investment	22,726	24,041	21	13	11	-2	-2	-14

this export-oriented branch has been renewed. In 1975, following reduced profitability in flower export, investments in hothouse farming dropped, however, in the year under review they increased again, especially in hothouses growing vegetables for export. Expansion of livestock farming, which has been going on almost continuously since 1970, stopped in 1976, due to a considerable accumulation of surpluses. In recent years there has been a marked transition to large, mechanized dairy farms in the kibbutzim. This rapid development was completed in 1976 as the sharp drop of investments in farm structures and livestock bears out.

In 1976 there was an extraordinary increase (27 percent) in imports of agricultural tractors. Since the extent of this import cannot be explained by parallel expansion of areas requiring tractor cultivation, one has to assume advanced acquisition due to the introduction of VAT (there was a marked increase of tractor imports in the last quarter of 1975 and during the first six months of 1976). It is also probable that the destination of part of the imported tractors was the administered areas. However, the data required for substantiating this are not complete.

B. Industry

Following a 19 percent increase in 1975, an unprecedented growth rate since the emergence from the recession in the sixties, industrial investments were down 11 percent in 1976. However, the extent of industrial investments was such that a 7 percent increase in capitalstock was still possible, even though industrial product grew by only one percent during 1976.

Table VII-5[3] shows that the downward trend of capital utilization and the transition to capital-intensive production methods continued in 1976. The combined effect of these two processes was an increase, for the fourth year running, in production capacity at a faster rate than was necessitated by the growth in industrial production. Both developments can be explained by the availability of directed financing which is granted to

[3] Column 3 in Table VII-5 compares the growth rate of capital stock in industry necessitated by the growth in industrial production, to the actual growth rate of industrial capital stock. The necessitated growth rate is obtained by a projection of capital stock in industrial branches using the industrial production index. When this index shows a drop, one assumes a maximal decrease of 2.5 percent of the necessitated capital stock. This percentage represents the average rate of capital retirement in industry. The comparison in column 3, which indicates a fall of about 20 percent in the rate of industrial capital utilization, assumes constant capital-output ratios in every branch. Thus the relative capital intensity of industrial branches is taken into account. Thus the relative capital intensity of industrial branches is taken into account. However, if there has been a change of capital intensity within a particular branch, this is not reflected in the comparison. Column 6 shows a further comparison – between the actual growth rate of industrial plant and the growth rate indicated by the consumption of electricity in every industrial branch. It is assumed that electricity consumption reflects actual plant utilization. This comparison shows a 12 percent drop in the rate of capital utilization. Part of the decrease represented by the percentage rates of column 3 can be attributed, therefore, to an intensification of capital utilization within the branches of industry.

TABLE VIII-5

INDEXES OF RELATIVE UTILIZATION OF GROSS CAPITAL STOCK IN INDUSTRY, 1969–1976

	Growth in gross industrial capital stock[a] (index 1969=100)	Growth in gross industrial capital stock necessitated by industrial branch production[b] (1969=100)	Index of relative utilization (2/1x100)	Growth in plant and equipment inventory in industry	Growth necessitated by electricity consumption in industrial branches[c]	Index of relative utilization (5/4x100)
	(1)	(2)	(3)	(4)	(5)	(6)
1969	100.0	100.0	100.0	100.0	100.0	100.0
1970	111.2	110.1	99	112.2	112.1	100
1971	122.9	119.8	98	126.9	126.8	100
1972	136.5	132.9	97	142.0	139.7	98
1973	150.8	138.9	92	154.6	146.9	95
1974	163.6	144.0	88	168.6	154.8	92
1975	177.2	148.6	84	185.8	167.0	90
1976	193.1	153.3	79	201.0	176.9	88

[a] The measuring is at the beginning of the year.

[b] The gross rates of industrial capital stock that are required by the growth in industrial production were calculated as follows: the estimate of capital stock in the main industrial branches at the beginning of 1969 were projected forwards by applying the growth rates that are obtained from the industrial production indexes, where the annual production is attributed to capital stock at the beginning of the year. When the industrial production index shows a decline, a maximal drop of 2.5 percent in necessitated capital stock is assumed, as the average of industrial retirements. Assuming that the industrial capital-output ratio remains constant, the result is the total necessitated capital stock from the growth of industrial output.

[c] As in (2), the calculation of the necessitated growth of industrial plant and equipment inventories was made using electricity consumption measurements in the main industrial branches.

investors in industry within the framework of the Law for the Encouragement of Capital Investments.

The subsidy element in directed credit, due to the low rate of interest at which this credit is granted, has grown especially in the last four years following the acceleration in inflation. This means that, relative to other factors of production, the cost of capital has been reduced, and quite substantially so. These circumstances probably induce certain developments which explain the continuing rapid growth of industrial capital stock: (a) when production capactiy is expanded, capital-intensive processes are given preference, (b) plants facing expansion prefer parallel production lines to additional shifts, (c) a single factory will invest in plant and equipment for special processing; if capital had been more expensive, there probably would have developed, at branch level, a specialization in specialized processing and thus wasteful acquisition of specialized equipment which stands idle most of the time, could be avoided, (d) advanced acquisition of plant and equipment on account of future depreciation.

Apart from these factors which are related to the low relative cost of capital to the investor, it is also possible that the decline in capital utilization is connected, to some extent, to a structural change which industry is undergoing, i.e., a rapid expansion of specific branches or the development of new branches. Such a change requires investments which take long to mature and which do not depend on the current situation in industry. Indeed, the phosphate and petrochemical projects, which are both carried out by the public company sector, belong to this category of investments.

Indicators[4] for the distribution of investments among industrial branches show a clear trend in only some of them. In the following branches there was a consistent real growth of investments between 1974 and 1976:

Branch	Average annual percentage growth
Mining & quarrying	100
Chemical & oil products	70
Rubber & plastics	13
Metal production	6
Electrical & electronic equipment	5

In mining and quarrying this growth is explained partly by investments connected with the Nahal-Tsin project for the production of phosphates for export. The growth in chemical and oil products is also explained by a number of large investment projects: the petrochemistry project (comprising investments in the expansion of refining capacity of light fuel products, the development of production of inputs for the petrochemical industry, and the petrochemical industry itself) investments in the "Machteshim" plant in Ramath

[4]Based on data of investment of imported plant by industrial branch of destination.

TABLE VIII-6

GROSS FIXED INVESTMENT, BY TYPE OF ASSET, 1971–1976

	Change in quantity at 1970 prices						Change in price				
	1974	1975	1976	1971	1972	1973	1974	1975	1976	1975	1976
	(IL million, at current prices)								(percent)		
NEW CONSTRUCTION											
Residential	6,932	8,630	8,323	20.0	23.0	5.9	-1.7	1.7	-17.0	22.5	14.1
Nonresidential	4,321	5,637	6,039	9.7	17.1	2.0	-0.2	-1.2	-16.0	32.0	27.5
Total construction and excavation works	11,253	14,267	14,362	15.6	23.3	4.4	-0.6	0.6	-16.6	26.1	19.5
LIVESTOCK INVENTORY											
Change in livestock inventory	41	66	80	44.4	44.4	9.8	-26.5	6.7	-12.5	51.0	38.5
PLANT AND EQUIPMENT											
Locally produced	1,625	2,380	2,456	13.5	15.1	11.0	-4.1	7.0	-17.9	36.9	22.5
Imported	2,875	4,735	5,498	9.7	28.5	-1.9	9.9	14.2	-9.2	44.7	27.0
Total	4,500	7,115	7,954	11.2	23.8	3.6	4.6	11.7	-12.1	41.8	26.8
TRANSPORT EQUIPMENT											
Motor vehicles	1,069	1,021	1,408	1.4	22.7	20.8	9.7	-43.5	6.1	69.0	30.0
Ships and aircraft	679	257	237	218.6	-73.3	222.0	-54.8	-73.4	-20.0	42.1	15.2
Total transportation equipment	1,748	1,278	1,645	85.0	-40.9	81.2	-24.6	-53.0	1.4	55.6	26.9
Total fixed investment	17,542	22,726	24,041	21.4	13.4	10.5	-2.4	-1.7	-14.2	31.8	22.3

SOURCE: Central Bureau of Statistics.

Hovav and the investment project of "Haifa Chemicals". The expansion in electrical and electronic equipment, and in metal products is probably explained by the acceleration of these branches' export. Export of metal products rose between 1974 and 1976 at an average annual rate of 37 percent.

However, during the same period there were also significant falls in the investments of nonmetallic mineral products, basic metals and wood and wood products by annual rates of 24, 18, and 16 percent respectively. Some 65 percent of the output of nonmetallic minerals – 36 percent of the output of basic metals and 30 percent of the output of wood serve as inputs for construction.[5] In addition, most of the output of the wood product branch intended for private consumption is furniture and is thus affected by the situation in the housing market. The reduction of investments in these three branches follows the slowdown in construction and the slump in the housing market.

A sectorial breakdown of industrial investments shows that their drop is due to the private sector. This sector's investments which were up 9 percent in 1975 fell at a rate of 18 percent in 1976.

Directed credit granted to investors in industry increased at a rate of 58 percent, while, in nominal terms, investments grew by only 11 percent. Part of the increase in the share of directed credit in total investment financing is explained by an increment (over 1975) of directed credit which was granted regardless of the criteria set by the Law for the Encouragement of Capital Investments. However, even when this increment is taken into account, one finds that in 1976 the share of directed credit in investment financing has increased appreciably. Furthermore, in 1976, the government granted investors who received suppliers' credit in foreign currency, exchange rate insurance. This arrangement equalized the terms of suppliers' credit to the terms of credit granted under the Law for the Encouragement of Capital Investments. Therefore, the extent of directed credit granted was actually greater than the measured amount,[6] and total directed financing granted to investors in industry in 1976 exceeded by far the amount indicated by the actual level of investments that year.

C. Power

These investments continued to grow although at a slower rate than in 1975. Development of power stations formed over half the investments in this sector. The construction of Eshkol-D power station continued in 1976 and the first of its two units (each having 228 mgw) is scheduled to become operative at the end of 1977. The construction of the M-D power station in Hadera has also begun. The first of this station's four units (of 350 mgw, each) is scheduled for 1980/81, the other three becoming operative, one every year, thereafter.

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[5] According to the 1968/69 input-output tables.

[6] cf. Table XVIII-6.

D. Transportation and Communication

Most of these investments (excluding means of transport) are in the hands of the government; roads are constructed both directly by the government and by local authorities, and investments in communication, ports, airports and the railways are carried out by government enterprises. There was a 25 percent drop in these investments which have also fallen during the previous two years. Since 1974 roads and communications have become the principal object of the government's restraint policy. This is reflected in a decelerated growth of capital stock of both roads and communications. The slowdown in the growth of roads is especially noticeable: during the decade preceding the Yôm-Kippur War they grew at an annual average of 10 percent, the annual rate never falling below 8 percent. Since 1973 their growth decelerated reaching 4 percent in 1976. It is worth mentioning that investments in roads and communication are of great externalities and, therefore, it is perhaps worth reexamining government's policy in this respect.

E. Services

The fast drop in this sector is the result of the fact that investments of the public sector which were still growing in 1975, fell in 1976, and thus the downward trend, so far due only to the private sector, strengthened. In the public sector, investments in government services, local authorities and non-profit institutions fell at similar rates, an average of some 10 percent. The rate at which the private sector's investments fell was almost double. Investments in hotels continued to drop reaching in 1976 only 30 percent of their peak level in 1972.

TABLE VIII-7

DIRECT IMPORT SHARE IN PLANT AND EQUIPMENT INVESTMENT, 1970–1976

(percent, at 1970 prices)

	1970	1971	1972	1973	1974	1975	1976
Agriculture[a]	40	41	42	45	52	61	63
Industry	76	76	77	77	79	78	82
Electricity and water works	72	57	70	73	75	73	67
Transportation[b]	50	58	58	45	40	47	47
Trade & services	49	46	51	49	57	55	60
Construction equipment and excavation works	84	84	82	86	91	90	85
Total economic sectors	64	63	66	62	66	67	69

[a] Excluding livestock inventory changes.

[b] Excluding ships, aircraft, and motor vehicles.

3. Residential Construction

a. Trends in the Housing Market and in Private Residential Construction

Unlike public construction, building by private contractors is financed out of current sales of dwelling to the public. Therefore private construction has to react quickly to fluctuations in demand. It is for this reason that trends in the housing market are reflected in the data on starts, supply, and sales of dwellings by private construction.

The natural response of private construction to increased demand is to increase building starts, and if demand drops, private contractors decrease building starts. Nevertheless, because of the duration of construction, supply of dwellings does not immediately respond to changes in demand, and thus, despite the fact that private building starts are immediately influenced, there is a lag in the adaptation of supply depending on duration of construction. This can be seen very clearly in the indices of Table VIII-9. The index of sales of privately constructed apartments was some 54 percentage points lower in 1976 than it was at the base year – 1971, and the index of starts was down 40 percentage points, however, the index of supply was only 16 percentage points lower compared to the base year. Thus, in the short run, supply of dwellings is inelastic, and changes in sales of dwellings and relative prices are merely indicators of demand trends.

The sale of apartments continued to drop in 1976 although at a slower rate than in the previous year. In 1976 one notices especially the fall in the relative price of apartments, both with respect to the index of consumer prices (a 14.6 percent drop) and with respect to the index of construction input prices (an 11.4 percent drop). In fact, the drop relative to construction input prices is even bigger since VAT which is included in the price of dwellings is not included in the index of construction input prices. Thus, the profit margins of private contractors have suffered quite a drop in 1976.

The factors causing changes in demand for housing are, first and foremost, the "cyclical" nature of this demand: the short-term inelasticity in the supply of apartments due to the duration of building causes the growth in demand for apartments for current occupancy (generally as a result of increased immigration) to be accompanied by an advanced demand by potential buyers and by speculative demand, which strengthen the trend. Because of high demand, prices climb. This spurs a further increase in demand by creating anticipation of continued shortage and continued price rises. Due to the long duration in building, the supply of completed apartments catches up with demand only with a delay of some years: and then with the passing of the initial causes of the original surge in demand it becomes apparent that there is a substantial surplus of apartments suitable for occupancy. The opposite process then sets in, and purchases decrease. The drop in demand causes a slowdown in price rises of apartments and even an absolute fall; therefore, potential home-buyers postpone their purchase hoping that the drop in prices will continue. This part of the cyclical process which showed its first signs in 1973

TABLE VIII-8

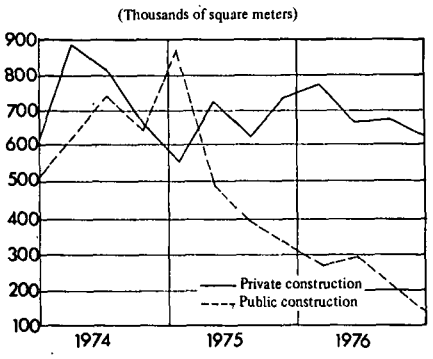
MAIN INDICATORS OF RESIDENTIAL CONSTRUCTION, 1971–1976

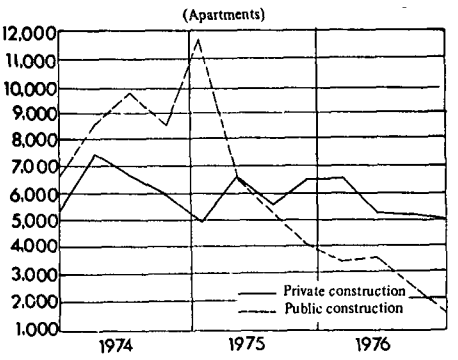
	1971	1972	1973	1974	1975	1976	Annual increase 1972	1973	1974	1975	1976
	(IL million, at 1970 prices						(percent)				
INVESTMENT											
Total residential construction	2,101	2,671	2,828	2,779	2,825	2,348	27.1	5.9	-1.7	1.7	-16.9
Public	715	896	1,028	1,148	1,248	892	25.3	14.7	11.7	8.7	-28.5
Private	1,386	1,775	1,800	1,631	1,578	1,456	28.1	1.4	-9.4	-3.2	-7.7
APARTMENTS			(thousands)								
Building starts	51.8	66.3	55.8	58.6	50.6	32.0	28.0	-15.8	2.7	-13.7	-36.8
Public	17.9	30.5	26.3	33.3	27.4	10.6	70.3	-13.8	26.6	-17.7	-61.3
Private	33.9	35.8	29.5	25.3	23.2	21.5	5.6	-17.6	-18.6	-8.3	-7.3
Building completions	28.7	47.3	50.9	51.7	54.9	54.9	22.2	7.6	-0.2	6.2	0
Public	15.9	20.4	21.5	23.9	26.5	26.9	28.3	5.4	12.6	10.9	6.8
Private	22.8	26.9	29.3	27.8	28.3	28.0	18.0	9.3	-9.5	1.8	-1.1
Apartments under construction	69.7	88.6	93.6	100.5	96.2	73.3	27.2	5.6	6.9	-4.3	-23.8
Public	21.3	41.2	46.0	55.4	56.2	39.8	32.2	11.5	19.9	1.4	-29.2
Private	38.5	47.4	47.6	45.1	40.0	33.5	23.1	0.4	-5.5	-12.8	-16.3
CONSTRUCTION TIME			(months)								
Total		17.3	17.8	21.3	22.4	23.2		2.9	19.7	5.2	3.6
Public		20.4	19.5	22.9	23.5	24.0		-4.4	17.4	2.6	2.1
Private		14.8	16.5	19.8	21.2	22.1		11.5	20.0	7.1	4.2

SOURCE: Central Bureau of Statistics.

FIGURE VIII-1

PUBLIC AND PRIVATE HOUSING CONSTRUCTION STARTS BY QUARTERS, 1974–1976





SOURCE: Central Bureau of Statistics.

strengthen greatly in 1975 and 1976 also as a result of a drop in the number of new immigrants during these years. A "by-product" of the decline in demand and in the relative price of apartments is the disappearance of the attraction of real estate as an alternative to financial investment. It should be mentioned that apart from the decline in the value of apartments there is, of new, the fiscal aspects; the changes in betterment tax which were introduced at the end of 1974 increased the capital gains tax on sales of an apartment which was not the sole apartment to be owned, and in 1975 an armament financing tax was also imposed on these apartments. These measures have lessened, even further, the profitability of holding an apartment as an investment asset. It is also quite likely that foreign investors, realizing that the rise in the value of their investment in real estate has fallen behing the rise in the value of the foreign currency with which they financed their investment, have also contributed to the decline in demand.

In spite of the slump in the housing market there were no large-scale accumulations of unsold apartments of private construction. For private contractors, as already mentioned, have adjusted in time the level of starts to the declining demand. This is also why private contractors have not been caught, by and large, in liquidity difficulties as was the case in public construction.

b. Public construction.

The recession in the construction sector as a whole, reached in 1976 the proportion of a crisis in public construction. Public construction depends rather less than private construction on current sales to the public for financing its operation. Therefore it is possible not to have any close correlation, even for a significant amount of time, between the level of public building and the level of sales and rentals of these aprtments to the public. Indeed, it is this property that allows the government to apply anti-cyclical policy measures using this sector.

TABLE VIII-9

PRIVATELY BUILT HOME MARKET INDICATORS, 1971–1976

(percent)

	Index of housing sales in private construction[a]	Index of supply of new housing in private construction	Rate of sales from supply of housing in private construction	Index of housing units in private construction[b]
1971 quarterly average	100.0	100.0	48.7	100.0
1972 quarterly average	94.6	117.4	39.3	105.5
1973 quarterly average	75.0	118.2	30.9	87.1
1974 I	73.2	115.6		59.6
II	82.1	121.7		83.6
III	62.5	108.7		73.5
IV	51.8	107.0		66.1
1974 quarterly average	67.9	113.0	28.9	70.7
1975 I	47.2	91.0		54.8
II	53.0	92.3		72.9
III	51.0	87.0		61.0
IV	55.5	87.8		71.0
1975 quarterly average	51.7	89.5	27.9	64.9
1976 I	53.5	85.6		71.8
II	49.1	84.0		57.5
III	43.2	83.1		56.3
IV	48.5	83.9	26.5	54.3
1976 quarterly average	46.1	84.2	26.5	60.0

[a] The sales index and supply of dwelling construction is based on data for 12 large towns (Jerusalem, Tel Aviv-Yaffo, Haifa, Bnei Brak, Bat Yam, Givatayim, Holon, Netanya, Petach-Tikva, Rishon-le-Zion, Rehovot, Ramat Gan), and as of the beginning of 1974 based on data for 5 other towns (Herzliya, Kfar Saba, Kiryat Bialik, Kyriat Yam, Kiryat Motzkin). The supply of dwelling includes those whose construction was begun during the period under construction and new dwellings which were not sold by the end of the previous period. Defined as newly finished dwellings are those whose construction ended within 15 months of the time of the survey.

[b] Starting in 1974, an estimate of illegal housing units has been included. Since the 1974 index, the quarterly average has been corrected for those indexes which did not include this illegal housing.

SOURCE: Central Bureau of Statistics.

However, in reality the public construction sector acted exactly in the opposite direction, and far from improving the situation it contributed to its further deterioration: in 1974 the construction of a large number of residential units had begun although it was already known that an unplanned stock of empty apartments is building up due to a further slowing down in the housing market and the decline in net migration. One should mention in this context the decision made at the end of 1974 to open up the private housing market to young couples. The public housing companies may not have realized in time the significance of this change in the program for aiding young couples, and were continuing to construct on a large scale also in 1975. Furthermore, in the first quarter of 1975 public building starts continued to increase and reached an unprecedented level of 12,000 units. In order to understand how such rocketing of public starts was possible one has to remember that the public companies operate also in the private market and that a substantial part of their public construction is under the bond scheme – i.e. in some coordination with the Ministry of Housing concerning location and standards and with directed intermediate financing – at a 13 percent interest rate – which covers about half the construction costs. The public companies, faced with a diminishing private market, made up for it by increasing starts under the bond scheme. This was made possible by the availability, under the scheme, of directed intermediate credit at subsidy terms. The companies were not faced, therefore, with any risk concerning the first stages of construction and as for the final stages – they must have assumed that if worst comes to the worst, the Ministry of Housing will come to their rescue[7]. In fact, as the stock of unsold apartments increased the liquidity situation of the companies worsened for the complementary financing is only received once a flat is sold. In addition, since the public companies are bound by contracts to subcontractors for the actual construction work, they are not flexible in adjusting the pace of work to the slowdown in sales. The liquidity situation of some of the big companies became critical and the government had to rescue them both by granting additional subsidized financing and by buying some of the unsold apartments: at the beginning of 1977 the Finance Committee approved the acquisition by the Ministry of Housing of some 2,500 apartments. The number of starts in 1976 had to drop – it fell to 40 percent of the 1975 levels, and a further decline can be expected. Thus the slump in the construction sector is deepening, and worse still, the level of dwelling under construction is falling below the long-term supply level and this is likely to create a new cycle in housing once demand picks up, as was the case at the beginning of the decade.

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[7] This assumption of the public housing companies had some foundation: in 1974 they were encouraged by the Ministry of Housing to start housing projects on a large scale beyond what was planned (cf. also Annual Report of the State Comptroller, No. 27, pp.514–515, Hebrew).

TABLE VIII-10

INCREASE IN APARTMENT PRICES, CONSUMER PRICES, AND PRICES OF CONSTRUCTION INPUTS, 1971–1976

(average percent)

	1971	1972	1973	1974	1975	1976
Apartment prices	29.1	34.9	27.1	38.4	30.3	12.1
Consumer prices	12.0	12.9	30.0	39.7	39.3	31.1
Construction input process	10.5	16.0	28.5	47.2	30.6	26.5
Changes in apartment prices at a ratio of the change in consumer prices	15.3	19.5	5.9	-0.9	-6.5	-14.6
Changes in apartment prices as a ratio of the change in construction input prices	16.8	16.3	-1.1	-6.0	-0.2	-11.0

TABLE VIII-11

MAIN INDICATORS IN CONSTRUCTION INPUT GROWTH, 1972–1976

						Percent annual change			
	1972	1973	1974	1975	1976	1973	1974	1975	1976
Israeli employed (thousands, annual average)	99.3	96.9	90.0	90.2	83.2	-2.4	-7.1	0.2	-4.4
Employed from admin. areas (thousands, annual average)	26.1	34.1	39.1	36.1	32.6	30.7	14.7	-7.7	-9.7
Total employed (thousands, annual average	125.4	131.0	129.1	126.3	118.8	4.5	-1.5	-2.2	-5.9
Gross investment in construction equipment (IL million, 1970 prices)	116.1	115.9	149.2	129.1	73.0	-0.2	28.7	-13.5	-43.5
Capital stock in construction equipment (IL million 1970 prices)	697.6	733.4	777.6	851.8	901.4	5.1	6.0	9.5	(5.8)
Capital per employed (IL, 1970 prices)	5,563	5,598	6,023	6,744	7,588	0.6	7.6	12.0	(12.5)
Cement consumption (thousands of tons)	2,114	2,084	2,329	2,371	2,097	-1.4	11.8	1.8	-11.6
Actual work-day input index of industries producing mainly for construction (1968=100)	136.9	128.1	125.8	124.8	122.7	-6.4	-1.8	-0.8	-1.7
Output of the construction branch (IL million, 1970 prices)	4,997	5,109	5,238	5,318	4,415	2.2	2.5	1.5	-17.0

Note: Data on employed, work-day input index, and cement consumption for 1973 and 1974 are annual averages based on the first nine months of 1973 and the last nine months of 1974.

4. Construction Inputs

The decline in the output[8] of the construction sector (by some 17 percent) affects first of all the production factors in the sector itself. Indeed, the average number of workers employed in this sector in 1976 was 6 percent down on 1975. Altogether some 21,000 workers left the sector, since the third quarter of 1973 – when the level of employment was at its peak – and up to the last quarter of 1976. Of these, 16,000 are Israelis and the rest are workers form the administered areas. The latter were partly absorbed in construction in the areas themselves, some found work in Jordan and some were even absorbed in industry in Israel. The adjustment of the other factors of production to declining construction is slower, and although investments in construction equipment fell rapidly, capital stock per worker is still growing. The consumption of cement fell in 1976, but its level was still above the 1973 level. This is partially explained by the boom in construction in the areas. Between 1974 and 1976 the proportion of imported cement in total cement marketing dropped from 22 percent to zero so that any further fall in the consumption of cement will reduce local production. In addition to cement, the decline in construction work also affects industrial branches whose main output is oriented to construction. In this group of branches (including cement) a consistent fall since 1973 in the number of actual work days can be noticed.

In spite of a dropping out of construction workers from the sector, and a decline in labor input in the industrial branches connected with construction, there has been no reoccurrence of the predicaments of the last recession, when unemployment in construction was also accompanied by unemployment, albeit at a lower rate, in industry. The reason for this lies in the expansion of other industrial branches which have absorbed workers from declining branches and perhaps even from construction itself. Parallel to the decline of construction in Israel there has been an increase in the administered areas: total starts grew between 1973 and 1976 at a rate of 70 percent and more. Residential starts increased during the same period by some 40 percent. As has been mentioned this fact contributed to the absorption of workers who became unemployed in Israel.

5. The Capital Stock

The deceleration in the growth of capital stock which began in 1974 continued and reached 6 percent in 1976, following an annual average of more than 9 percent during 1970–1974.

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8 Construction output comprises, apart from residential and nonresidential building, also defense contruction and maintenance work which are not defined as investments.

Since the beginning of the sixties, only 1967 saw a lower growth rate of nonresidential capital stock than in 1976. Then, industry and agriculture contributed to the slowdown, whereas now deceleration is due mainly to transportation and public services. However, the long-term trend of an increasing weight of transportation and public services in nonresidential capital stock has not changed.

TABLE VIII-12

GROSS FIXED CAPITAL STOCK, BY SECTOR, 1976–1977

(IL million, 1976 prices)

	Beginning-of year stock 1976	Gross investment, 1976	Retirements, 1976	Net stock increment, 1976	Beginning-of-year stock 1977
Agriculture	21,885	1,313	264	1,049	22,934
Water	9,675	226	64	162	9,837
Industry	43,646	4,120	1,162	2,958	45,604
Construction equipment	3,531	286	110	176	3,707
Electricity	9,819	1,107	306	801	10,620
Transportation and communication	55,228	3,395	1,582	1,813	57,041
Public services	44,369	3,725	419	3,306	47,675
Private services	15,541	1,546	609	937	16,478
Total nonhousing stock	202,693	15,718	4,514	11,201	213,897
Housing	112,810	8,323	548	7,775	120,585
Total fixed capital stock	315,503	24,041	5,062	18,919	334,482

SOURCE: Bank of Israel Series.

TABLE VIII-13

GROWTH OF REAL GROSS CAPITAL STOCK, BY SECTOR, 1955–1976, SELECTED YEARS

(percent)

	Changes in gross capital stock						Sectorial division of gross capital stock (At the beginning of the year)					Sectorial division of gross stock increment				
	Average 1950-1959	1960-1965	1966-1969	1970-1974	1975	1976	1955	1965	1970	1975	1977	1955	1965	1970	1975	1976
Agriculture	8.2	5.8	2.8	4.2	5.8	4.9	14.6	11.0	8.9	7.0	6.8	13.4	4.9	3.9	5.1	5.6
Investment	28.7	9.0	3.4	1.8	1.8	1.8	6.0	5.4	4.5	3.1	2.8	5.1	2.7	0.9	0.7	0.8
Industry	13.7	9.0	6.2	9.8	9.0	7.0	14.4	13.7	12.7	12.8	13.0	10.7	6.6	15.3	15.1	14.8
Construction equipment	36.2	13.5	-0.4	5.9	5.8	5.0	0.6	1.7	1.3	1.1	1.1	1.6	1.8	0.5	0.8	0.9
Electricity	17.7	7.5	6.0	6.9	7.9	8.1	3.2	3.8	3.7	3.2	3.3	7.7	3.2	2.6	3.2	4.3
Transportation	15.8	15.1	10.5	11.5	5.5	3.4	10.3	11.9	14.7	16.2	15.3	7.0	20.6	16.8	11.1	8.7
Public services	24.8	15.8	11.3	12.0	10.8	7.5	4.8	9.2	11.6	12.7	13.2	9.2	14.7	14.4	17.1	16.2
Private services	11.3	16.3	9.2	8.2	7.9	6.1	3.8	4.3	4.9	4.8	4.8	2.4	6.8	5.8	4.8	4.9
Total nonhousing stock	14.2	10.9	7.5	9.1	7.5	5.6	57.8	61.0	62.4	61.0	60.4	57.1	61.2	60.3	57.2	56.1
Housing	14.5	9.7	5.7	10.6	8.8	6.8	42.2	39.0	37.6	39.0	39.6	42.9	38.8	39.7	42.8	43.9
Total fixed capital stock	14.3	10.4	6.9	9.7	8.0	6.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bank of Israel Series.