CHAPTER VIII

INVESTMENT AND CONSTRUCTION

1. MAIN DEVELOPMENTS

The upturn in domestic investment, which began in 1978 following a substantial real decline in the two preceding years, continued at an accelerated pace in 1979. Fixed investment (buildings and equipment) increased 10 percent in 1979, compared with 6 percent in the previous year, approaching the growth rate achieved in past boom years.

Most of the investment growth was due to an impressive 23 percent jump in expenditure on machinery, compared with 15 percent in 1978. Sizable increases were also recorded in inventory investment. In contrast, construction activity sector remained unchanged: a real growth of 12 percent in residential construction was offset by a similar slowdown in nonresidential building.

The healthier showing in equipment investment was in line with the long-run rising trend in the weight of this component in total investment. This trend reflects the conclusion of a process of rapid economic growth, as well as the more rapid physical and technical obsolescence of equipment as compared with buildings. The authorized accelerated depreciation allowance also encouraged investment in equipment over buildings.

Imported machinery and equipment attracted 31 percent more investment money in 1979, while investment in Israeli-made equipment rose by only 7 percent. This reflected a strong demand for transport vehicles, construction equipment, tractors, and special equipment in the water and electricity sector,[1] for which domestic substitutes are unavailable. The accelerated investment in land transport vehicles and construction equipment can be traced to a number of factors: a renewed upturn in public housing construction, the granting of more convenient credit terms for the purchase of trucks, and the military redeployment in the Negev, which gave rise to heightened expectations of demand growth in the construction industry.

[1] See section 2 below.

Table VIII-1

GROSS FIXED INVESTMENT BY SECTOR, 1975-79

(IL million, at 1975 prices)

	1975	1976	1977	1978	1979	Percent annual change 1976	1977	1978	1979	Price change 1979 (%)	IL million at current prices, 1979
1. Agriculture[a]	1,069	1,101	1,042	1,126	1,132	3	-5	8	1	76	5,482
2. Water	218	200	184	212	272	-8	-8	15	28	82	1,310
3. Electricity	780	826	536	1,070	1,039	6	13	14	-3	79	5,411
4. Industry, mining and quarrying	3,688	3,378	2,945	3,364	3,597	-8	-13	14	7	69	18,260
5. Construction equipment	418	238	117	146	378	-43	-51	26	159	80	1,969
6. Transportation and communication[b]	2,884	2,471	2,130	2,422	3,313	-14	-14	14	37	69	18,231
Thereof: Excl. vehicles	1,913	1,495	1,275	1,227	1,422	-22	-15	-4	16	80	7,568
7. Trade, hotels, and business services[c]	1,159	1,256	1,377	1,360	1,407	8	10	-1	4	58	6,770
8. Public services[c]	3,773	3,126	2,847	3,050	2,760	-17	-9	7	-10	91	15,476
9. Total nondwelling investment (1—8)[b]	**13,989**	**12,596**	**11,578**	**12,750**	**13,898**	**-10**	**-8**	**10**	**9**	**75**	**72,899**
10 Housing construction	8,728	7,636	6,016	5,879	6,555	-13	-21	-2	12	104	38,400
Private	5,097	4,905	4,589	4,819	5,268	-4	-6	5	9	103	31,292
Public	3,631	2,731	1,427	1,060	1,287	-25	-48	-26	21	124	7,108
11. Total fixed investment[b] (9+10)	**22,717**	**20,232**	**17,594**	**18,629**	**20,453**	**-11**	**-13**	**6**	**10**	**84**	**111,299**

[a] Agriculture, forestry, and land amelioration, as well as investment in livestock.

[b] Excludes ships and aircraft. This figure is detailed in Table VIII-2.

[c] For lack of direct data on the distribution of investments in domestically produced equipment among the services subbranches, the distribution here between business and public services is a Bank of Israel estimate. For the purpose of this estimate, it has been assumed that such investments are distributed similarly to those in imported equipment. Public services include the central government, local authorities, the Jewish Agency, and nonprofit institutions.

Source: Central Bureau of Statistics. The rates of change were calculated from original data.

Table VIII-2

GROSS FIXED INVESTMENT BY TYPE OF ASSET AND CHANGE IN INVENTORIES, 1975-79

(IL million, at 1975 prices)

	1975	1976	1977	1978	1979	Percent annual change 1976	1977	1978	1979	IL million at current prices, 1979
1. Residential construction	8,728	7,636	6,016	5,879	6,555	-13	-21	-2	12	38,400
2. Nonresidential construction	5,808	5,167	4,978	5,023	4,536	-11	-4	1	-10	23,925
3. Total construction	**14,536**	**12,803**	**10,994**	**10,902**	**11,091**	**-12**	**-14**	**-1**	**2**	**62,325**
4. Domestically produced equipment	2,803	2,414	2,291	2,667	2,859	-14	-9	16	7	13,329
5. Imported equipment	5,635	5,203	4,722	5,394	7,039	-8	-9	14	31	39,716
6. Total equipment	**8,438**	**7,617**	**7,013**	**8,061**	**9,898**	**-10**	**-8**	**15**	**23**	**53,045**
7. Total investment in construction and equipment (3+6)	**22,974**	**20,420**	**18,007**	**18,963**	**20,989**	**-11**	**-12**	**5**	**11**	**115,370**
Thereof:										
Land transport vehicles	971	976	833	1,195	1,891	1	-12	40	58	10,663
Ships and aircraft	257	188	413	334	536	-27	120	-19	60	4,071
8. Change in inventories	1,408	993	1,591	1,243	2,412	-29	60	-22	94	6,533
9. Total gross domestic investment (7+8)	**24,382**	**21,413**	**19,598**	**20,206**	**23,401**	**-12**	**-8**	**3**	**16**	**121,903**

Source: Central Bureau of Statistics. The rates of change were calculated from original data.

The turnaround in nondwelling investment in the last two years came in response to the economy's renewed growth and to expectations of its continuance; it also contributed to this growth, since investment constitutes part of aggregate demand. Furthermore, it should be recalled that investments carried out in 1979 still benefited from nondirected credit; as inflation grew worse, the subsidy element in this credit increased.

The indexation of development loans in mid-1979 was a far-reaching step toward the general elimination of this credit subsidy, which had swelled enormously with the lagging of interest rates behind inflation.[2] The subsidization of capital had provided an incentive to invest and, consequently, the growth of a firm's capital stock was not necessarily related to its efficiency: expanded production was accompanied by a growth in capital stock, which tended to be underutilized. Various indicators testify to a relatively low rate of capital stock utilization in recent years (see section 2 and Table VIII-5). Although the rate has climbed back somewhat in recent years, along with the renewal of economic growth, it is still well below the level achieved in 1970.

In light of the further acceleration of inflation in 1979, it is more than ever necessary to revaluate the policy measures designed to stimulate the economy. The expansion of investment aid in recent years was primarily an unplanned by-product of the escalation of inflation. Just as the subsidy element in nonindexed credit encouraged investment, so too did the inventory tax relief and accelerated depreciation allowance, which were designed as a partial solution to the unfair taxation of inflationary profits. There is a similar asymmetry in the tax system: on the one hand interest payments (which are especially high due to inflation) and accrued linkage differentials are recognized as an expense for tax purposes, while on the other hand assets financed through credit are not revalued. Thus, under the present tax arrangement, in which linkage differentials are recognized for tax purposes, the indexation of credit very often does not achieve its purpose.

This system of concessions and incentives (combined with provisions for the protection of domestic products) tends to benefit existing concerns which are capital intensive and well-stocked with equipment and inventories of raw materials and finished goods, and favors mass production of standard goods (a method that is capital-intensive and inefficient given the limited domestic market). These activities no longer suit the Israeli economy, which is small in international terms, capital-poor, and lacking the pool of unskilled labor necessary for capital-intensive mass production.

[2] From April 1979 the interest on development loans ranged from 27 to 32 percent, depending on the development area, compared with 22 to 27 percent prior to that date. The increase in these rates over time lagged far behind the rate of inflation, even though the declared policy of the Ministry of Finance was to adjust the rates as much as possible to the rise in the consumer price index.

Table VIII-3

GROSS FIXED CAPITAL STOCK BY SECTOR, 1960-79

Beginning of year	Percent annual increase in gross capital stock									Change in gross capital stock in 1979[a] (IL billion, at 1979 prices)				Distribution of gross capital stock at beginning of 1980 (%)
	Average									Stock at beginning of 1979	Gross investment in 1979	Discards in 1979	Stock at beginning of 1980	
	1960-65	1965-68	1968-73	1974	1975	1976	1977	1978	1979					
Agriculture	5.0	3.4	3.6	4.9	5.3	5.1	4.5	4.7	4.3	91.44	5.48	1.57	95.35	8.9
Water	9.0	4.3	2.2	2.0	2.3	2.0	1.8	2.1	2.8	39.70	1.31	0.21	40.80	3.8
Industry	9.0	3.5	10.1	8.2	9.1	7.2	5.5	6.2	6.4	205.20	18.26	5.38	218.08	20.5
Construction equipment	13.5	1.2	4.6	8.8	7.5	2.7	-1.0	0.0	6.1	15.98	1.96	0.99	16.95	1.6
Electricity	7.5	7.0	6.3	7.1	8.4	8.1	8.6	9.4	8.4	51.10	5.41	1.12	55.39	5.2
Transportation	15.1	11.6	12.3	9.3	4.8	3.4	1.9	2.3	3.6	308.97	22.30	11.93	319.34	30.0
Public services	15.8	13.1	11.6	11.7	11.1	8.0	6.5	6.4	5.0	234.73	15.48	3.75	246.46	23.1
Private services	16.3	11.4	9.4	9.2	7.2	7.1	6.8	5.4	5.2	69.61	6.77	3.13	73.25	6.9
Total nondwelling capital stock	**10.9**	**7.5**	**9.0**	**8.5**	**7.3**	**5.8**	**4.6**	**4.8**	**5.0**	**1,016.73**	**76.97**	**28.08**	**1,065.62**	**100.0**
Residential housing	9.7	7.0	8.6	9.9	9.3	7.4	5.4	5.0	5.3	692.55	38.40	1.58	729.37	
Total fixed capital stock	**10.4**	**7.3**	**8.8**	**9.0**	**8.1**	**6.4**	**4.9**	**4.9**	**5.1**	**1,712.50**	**115.37**	**29.66**	**1,794.99**	

[a] Rounded figures; rates of change were calculated from original data.
Source: Central Bureau of Statistics and Bank of Israel.

The indexation of directed investment credit is only one step in the right direction. It must be supplemented with a reexamination of all aspects of the system of taxes and incentives, bearing in mind the limited size of the Israeli economy and the high educational level of its workforce.

In housing construction, 38,000 units were started in 1979, up from 31,000 the year before. This growth was the result of a surge in public construction, which doubled during 1979, while private starts fell slightly. Because of the low number of starts made in the previous two or three years, only 30,000 units were completed during 1979, 5,000 units less than in 1978.

The housing market revival, which began in 1977, pulled up the level of residential construction in its wake. Several factors accounted for the heavier sale of homes: an increase in immigration, pent-up demand on the part of those who had deferred purchases in 1974 and 1975 when the relative price of dwellings was dropping, and the foreign currency reform of November 1977 with its accompanying devaluation, which caused many foreign currency holders to turn to housing as an attractive domestic investment channel. It proved impossible to meet the extra demand both because the existing stock of homes was small due to the paucity of starts in the past few years, and because of the long building time. The taxation of contractors' inflationary profits also worked against an increased supply of housing units. All in all, the supply of housing starts was not sufficiently elastic to accomodate the surging demand in 1978.

As a result, prices began to rise in real terms, and nominally they doubled in the year and a half ending in mid-1979. This dampened demand, especially among those eligible for housing assistance. The latter group found in increasingly difficult to satisfy its housing needs, as the amount of financing and other assistance lagged behind soaring market prices. By the end of 1978 the demand for housing began to subside (see Figure VIII-4), and by the second half of 1979 private housing starts also turned down. The lower level of demand led to an excess supply, which in turn slowed the real rise of housing prices already in the first half of 1979 (see Table VIII-7).

From Table VIII-8 it can be seen that the size of the average housing loan in relation to the price of the dwelling has fallen in recent years, making it harder for those eligible for assistance to buy a home. The partial indexation in 1979 of housing loans while increasing their size has made these loans more effective; in other words, a definite preference has been accorded to the eligible (low-income) groups. At the same time, these changes have erased the advantage of advance purchases or the acquisition of a second home for investment purposes, a phenomenon that had prevailed for some time and had benefited precisely those with relatively high incomes.

Table VIII-4

GROWTH OF PUBLIC AND PRIVATE INVESTMENT IN MACHINERY AND EQUIPMENT, 1971-79

	Percent annual change				IL million at current prices, 1979
	Average				
	1971-75	1976-77	1978	1979	
Total investment in machinery and equipment	9	-9	15	23	53,045
Public[a]	11	-12	13	12	12,661
Private[b]	5	-8	16	27	40,384
Imported machinery and equipment	7	-8	14	31	39,716
Public	13	-9	11	16	7,677
Private	5	-8	15	34	32,039
Domestically produced machinery and equipment	8	-5	16	7	13,329
Public	9	-14	15	7	4,984
Private	7	1	17	7	8,345

[a] Investment in public services (including nonprofit institutions), transportation and communication (excluding transport equipment), and in water and electricity projects.

[b] Investment in business services, industry, mining and quarrying, construction equipment, agriculture, and transport equipment (including ships and aircraft).

Source: Central Bureau of Statistics and Bank of Israel.

2. NONDWELLING INVESTMENT

Fixed investment in agriculture remained unchanged in 1979, after rising 8 percent in 1978. Investment in structures fell by 18 percent, but that in machinery and equipment went up to about the same extent. The reduction of structures was largely related to the crisis in the flower industry, which depressed hothouse construction by 72 percent. Investment in internal irrigation networks and farm structures dropped in real terms by 36 and 35 percent respectively. Most of the increase in machinery and equipment was accounted for by imported tractors.

The growth of investment in water facilities continued for the second year. In contrast to the downtrend in other sectors, here construction expanded by 18 percent and total fixed investment by 28 percent. This was in response to the drought that afflicted the country in recent years, which resulted in the overpumping of underground resources, and in its wake a heavier investment in the development of new sources in order to improve the water economy. In addition, IL400 million was spent on water projects for new settlements and outposts on the Golan Heights, in the Jordan Valley, and in the Arava. In addition, the military redeployment in the Negev entailed an increased infrastructure investment for the region's

Table VIII-5

UTILIZATION OF STOCK OF INDUSTRIAL EQUIPMENT, 1970-79

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Utilization measured by the ratio of electricity consumption to stock of equipment										
Index	100.0	98.5	94.3	88.5	85.0	83.5	79.1	79.4	83.5	84.6
Percent annual change		-1.49	-4.23	-6.17	-3.99	-1.76	-5.24	0.29	5.26	1.33
Utilization measured by the ratio of electricity consumption to installed power of electric motors										
Index	100.0	100.8	98.7	94.9	93.3	94.0	91.4			
Percent annual change		0.75	-1.99	-3.92	-1.64	0.71	-2.80			

Note: The data on installed power of electric motors are available only for 1965-76. During these years it was assumed that installed power changed in proportion to changes in the stock of equipment. The utilization rate was calculated as the ratio between actual electricity consumption and the potential consumption if the motors were operated 24 hours a day. Multiplying the potential number of hours by the hourly electricity consumption (in kilowatt-hours) of the machines gives their potential consumption.

water supply. All these projects involved a heavy investment in equipment, most of it specialized and, of necessity, imported, such as drilling and desalination equipment, pumps, and motors. As a result, expenditure in imported equipment rose by a resounding 87 percent, compared with a more modest 44 percent for domestically produced equipment.

Construction activity in the electricity industry continued to grow in 1979, albeit much more slowly compared with the two previous years, while machinery and equipment investment fell. Infrastructure work continued on the Hadera power station, where construction had gone into full swing in 1977.[3] The major share of this investment is on imported equipment and materials by the foreign contractor building the plant, and includes equipment unavailable domestically, such as generators and turbines.

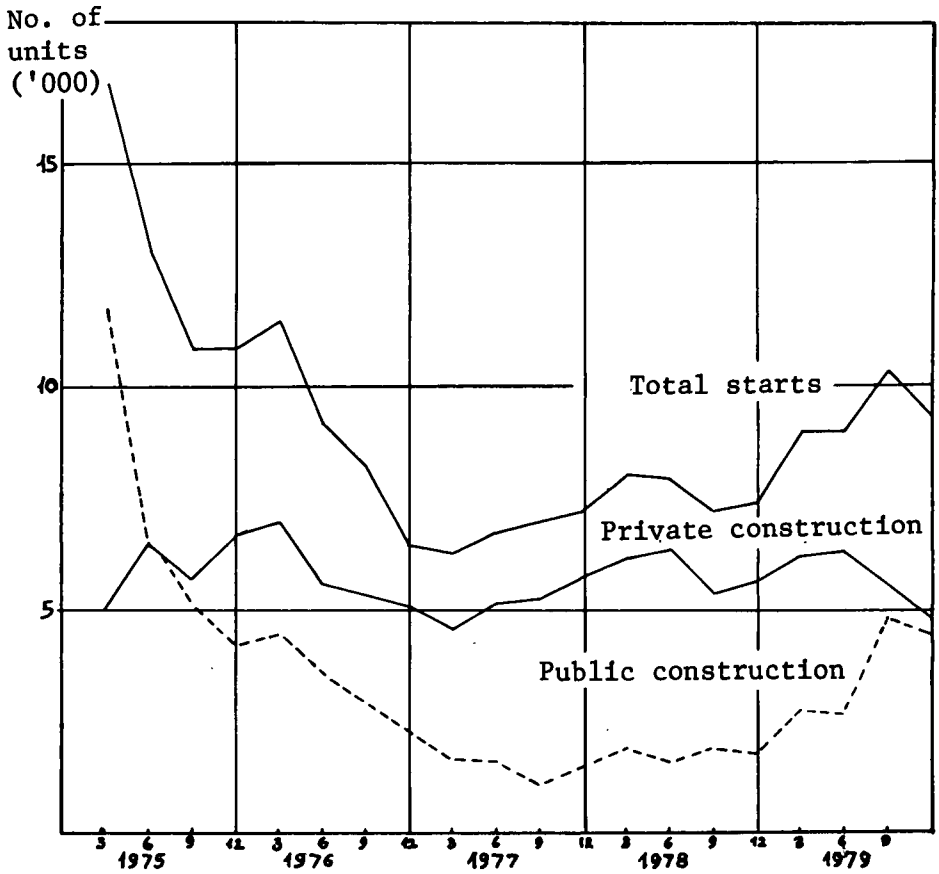
Fixed investment in industry totaled IL18.3 billion in 1979, a growth of 7 percent over 1978; outlays on construction declined 9 percent, while those for machinery and equipment were up 12 percent. Most industrial branches registered a real increase in investment, the bulk of it on imports; exceptions were basic chemicals, chemical and petroleum products, and mining and quarrying. The

[3] The total investment in this plant is slated at IL9.7 billion; IL3.5 billion had been expended by March 1979 and IL2.5 billion in 1979/80. The project is due to be completed in 1983.

decline in chemicals was due to the completion of several large projects, the most important being the ethylene plant at the Haifa Refineries.[4]

Figure VIII-1

RESIDENTIAL CONSTRUCTION STARTED, BY INITIATING SECTOR, 1975-79
(Quarterly data)



[4] The total investment is $120 million. Among other completed projects were the polyethylene plant for Israel Petrochemical Enterprises and Frutarom Ltd.

Part of the industrial investment was intended to replace existing capital, while another part was for enlarging the capital stock, which expanded by 6.5 percent in 1979, the highest rate of any sector apart from electricity (see Table VIII-3).

The capital stock utilization rate in industry[5] (Table VIII-5) rose during the last two years, after dropping steadily in 1970-77. The utilization rate fluctuates in tandem with the economic cycle. Thus, when the economy is sluggish the utilization rate declines and it moves back up during boom periods. However, despite the economic growth in the last two years, the utilization rate remained well below the level of the early 1970s. This long-term decline was accompanied by a steady increase in the capital stock. These undesirable developments can be attributed to the stronger incentive to invest in the wake of spiraling inflation.

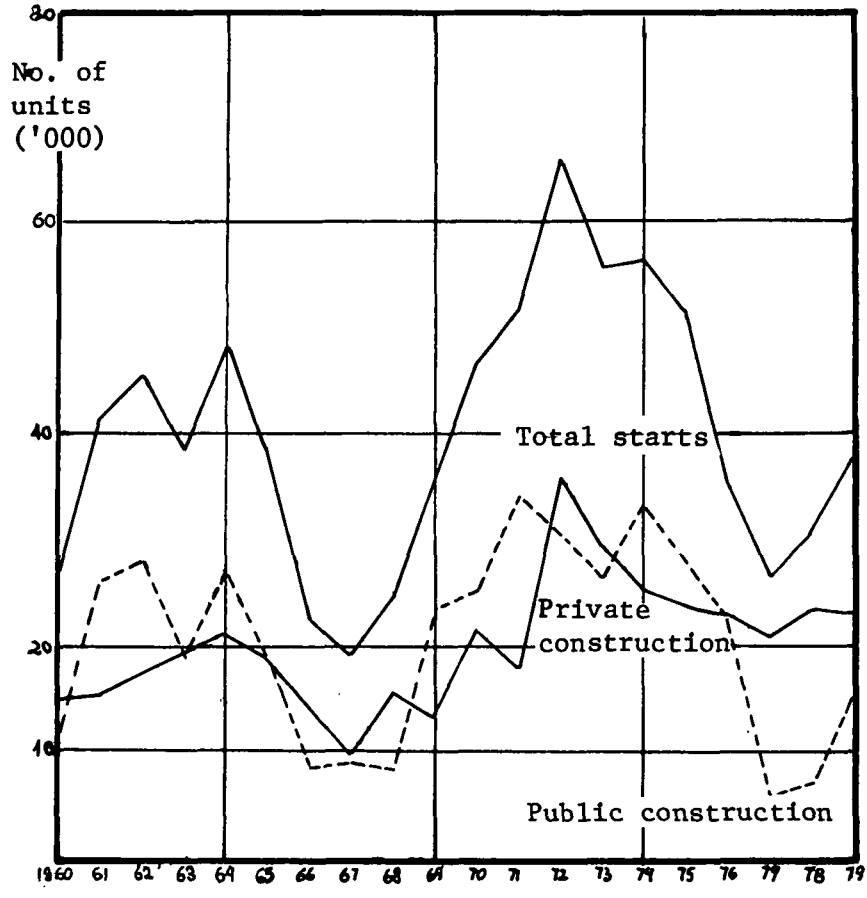
Ongoing inflation has greatly exacerbated the structural distortions in the capital and labor markets. In the absence of a capital assets services market, it is usually necessary to own a capital asset in order to derive services from it. The cost of these services to the owners has become negligible, or even negative,[6] in recent years, owing to the aggravation of inflation. In other words, the subsidy given in the form of low-interest development loans means that the government has supplied, virtually free of charge, the services of one of the factors of production, namely capital. In contrast, the producer pays a real positive price for the use of the other factor—labor. Furthermore, labor is subject to high tax rates, both income tax and compulsory national insurance contributions. Investment Authority data point to a significant rise in approved investments in the second half of 1979 as compared with the first half; however, most of this growth was due to requests submitted in the first half of the year. On average, four to six months elapse between the submission of a request and its approval. Development loans approved before the end of May 1979 were granted under the old terms, i.e. without linkage but with interest rates ranging from 27 to 32 percent. Approved requests presented after this date carried full linkage of the development loan. Loan applications submitted before the end of May but still in the pipeline were granted subject to 70 percent indexation and 2 percent interest (or, at the borrower's option, fully linked to the dollar).

[5] The 43 percent utilization rate in Israeli industry is low by international standards. We estimated the utilization rate by calculating the quantity of electricity consumed by electric motors installed at Israeli industries relative to the maximum consumption over a 24-hour period (see Table VIII-5). The utilization rate in 1976 was only slightly higher than in 1965 (25 and 23 percent respectively). A second method is to compare electricity consumption relative to the stock of equipment.

[6] The implicit price of capital services consists of interest expense on invested capital and depreciation. This is obtained by adding the depreciation rate to the interest rate and multiplying the result by the price of the asset. The decision to invest today is determined by the expected future interest rate: i.e. by substracting the expected inflation rate from the nominal interest rate. The expected inflation rate is estimated on the basis of the previous year's rate. Even if other methods were used to estimate the expected inflation, the price of capital services would be low, or even negative, because of the fairly low nominal interest rate.

Figure VIII-2

RESIDENTIAL CONSTRUCTION STARTED, BY INITIATING SECTOR, 1960-79



3. RESIDENTIAL CONSTRUCTION

The boom in the housing market and in private residential construction that became evident at the end of 1977 was short-lived. After slowing down in the course of 1978, activity stabilized at a relatively low level in 1979, compared to earlier building cycles.

Table VIII-6

PRINCIPAL DATA ON CONSTRUCTION ACTIVITY, 1975-79

	1975	1976	1977	1978	1979
Total output (IL million, at 1975 prices)	**16,576**	**14,423**	**12,281**	**12,196**	**12,525**
Investment in housing	8,728	7,636	6,016	5,879	6,555
Investment in nonresidential construction	5,808	5,167	4,978	5,023	4,536
Output of other construction[a]	2,040	1,620	1,287	1,294	1,434
Construction starts (million m^2)	6.3	5.6	4.7	5.4	5.7
Residential	4.7	3.7	3.0	3.6	4.3
Nonresidential	1.6	1.9	1.7	1.8	1.4
Home construction starts (thousands)	52	35	27	31	38
Home construction completions (thousands)	56	56	43	35	30
Employed (thousands)	126	119	114	111	116
Israelis	90	86	85	80	82
From administered areas	36	33	29	31	34
Cement sales (millions of tons)	2.4	2.1	1.9	2.0	2.2
Investment in construction equipment (IL million, at 1975 prices)	418	238	117	146	378
Annual average percent change in price indexes					
Housing construction inputs	30.7	26.4	30.9	57.3	87.4
Road construction inputs	49.1	26.0	36.3	75.1	91.9

[a] Defense construction and a partial estimate of maintenance work.
Source: Central Bureau of Statistics.

The aggravation of inflation was the major cause of the deceleration. In the absence of credit indexation, the mortgage loan system ceased to be a significant factor in the housing loan market (see Table VIII-8); many buyers found it impossible to assume the heavy initial repayment on large loans, which carried high nominal interest rates in anticipation of soaring inflation. At the same time housing prices jumped sharply due to the combined effect of several factors: with the disappearance of excess supply the relative price of housing returned to its prerecessionary level, the unfair taxation of the inflationary profits of contractors building on their own plots had a detrimental effect on supply, and the acceleration of inflation pushed up the price of inputs. These developments make it difficult for potential buyers, especially those groups eligible for public housing assistance, to purchase apartments. Nevertheless, it is not clear whether an actual housing shortage arose; on the contrary, data on housing density point to a continued improvement in housing conditions.

The actual volume of purchases in 1979 was moderate. This stabilized, and even

depressed, private housing starts on the one hand, and induced a feeling of a shortage on the other hand, due to the sharp price increases and the nonfunctioning of the mortgage loan system.

The lag in adjusting the rate of financing and other assistance (changes were effected only in the second half of 1979) created, as stated, a sense of a serious housing shortage. An incorrect assessment of the problem led to pressure for renewing large-scale direct public housing construction. In consequence, an appreciable increase in public building starts took place in the second half of 1979. It is reasonable to assume that this incremental supply exacerbated the slowdown in the housing market and contributed to the drop in the relative price of housing by year-end. However, the expanded construction was, to some degree, at the expense of private building starts, which slumped sharply at the end of 1979 and the start of 1980. This paucity of private housing starts is likely to be a key factor in a renewed price explosion when excess demand reappears, since public construction is not a complete substitute for private building, with respect to either location or the standard of construction. Furthermore a large-scale crash public building program apparently pushes up construction input prices faster than in the case of private building, which usually displays a less erratic growth pattern.

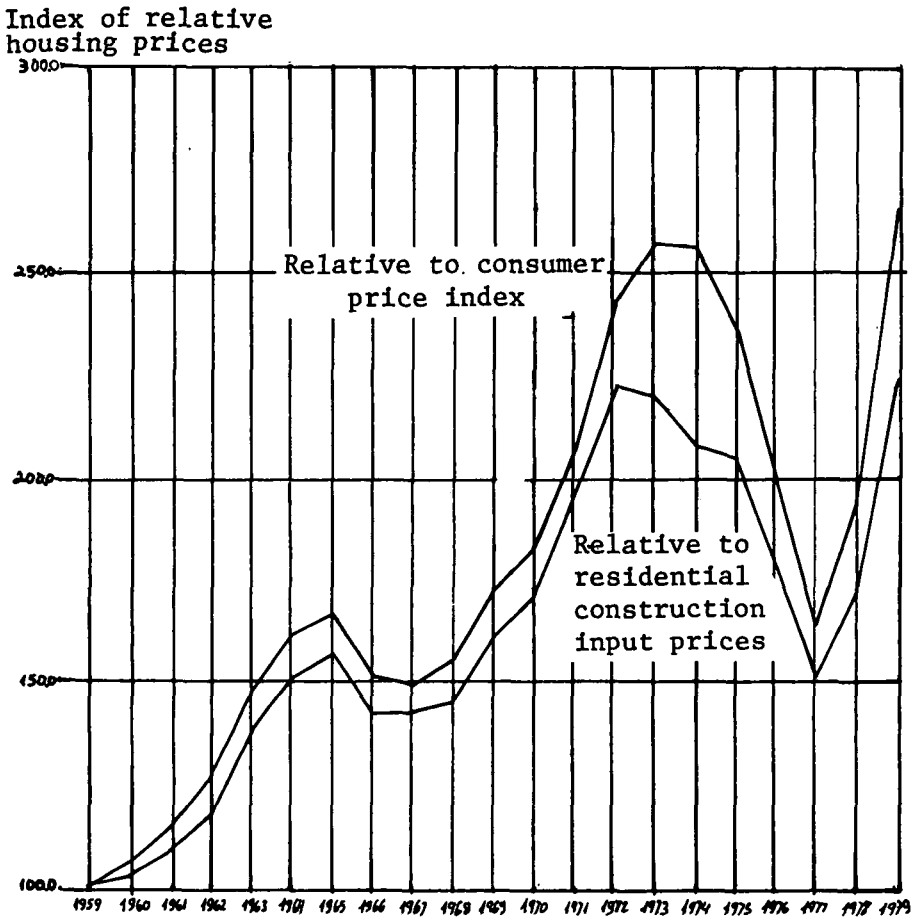
The renewed surge in public construction in 1979 constituted a retreat from the policy inaugurated at the end of 1974, which in essence favored the extention of aid and financing to those eligible to purchase housing in the open market. There is no advantage to government intervention in both initiating and financing construction (which in any case is executed by the private sector). On the contrary, direct construction is characterized by a heavier budgetary burden a longer time to react to changing circumstances, thereby exacerbating the already existing fluctuations in the housing market; greater inefficiencies due to official red-tape; a tendency to provide new units to those eligible for housing assistance while failing to utilize the large existing stock of second-hand units; and serious problems in the allocation of units by a bureaucratic apparatus.

In mid-1979 the government revised its system of credit and other assistance, primarily by indexing loans. This made it possible to grant larger loans without increasing the initial current repayment burden and to exercise greater control over the subsidy component of the credit granted.

These changes improved the situation for the preferred groups, who were now able to take advantage of the available credit, and purchase housing and meet the repayment terms. Their gain came at the expense of financially better-off purchasers who, during the period of credit subsidy, had tended to advance purchases and to acquire homes for investment purposes. Consequently, there was a sizable increase in the number of home buyers among eligible young couples

Figure VIII-3

INDEX OF RELATIVE HOUSING PRICES, 1960-79



in the second half of 1979, as contrasted with the decline in nondirected loans granted to the general public.

In September 1979 additional assistance was given to eligible groups in the form of an indirect tax refund, primarily of the value added tax. The shortcoming of this approach is that it benefits purchasers of new homes, who as a rule are in a better economic position than those eligible families willing to make do with smaller, second-hand units.

The purchase of houses for investment purposes and its impact on the housing market was a significant factor in earlier cycles. This mainly took the form of ad-

Table VIII-7

PRICES OF OWNER-OCCUPIED DWELLINGS, 1977-79

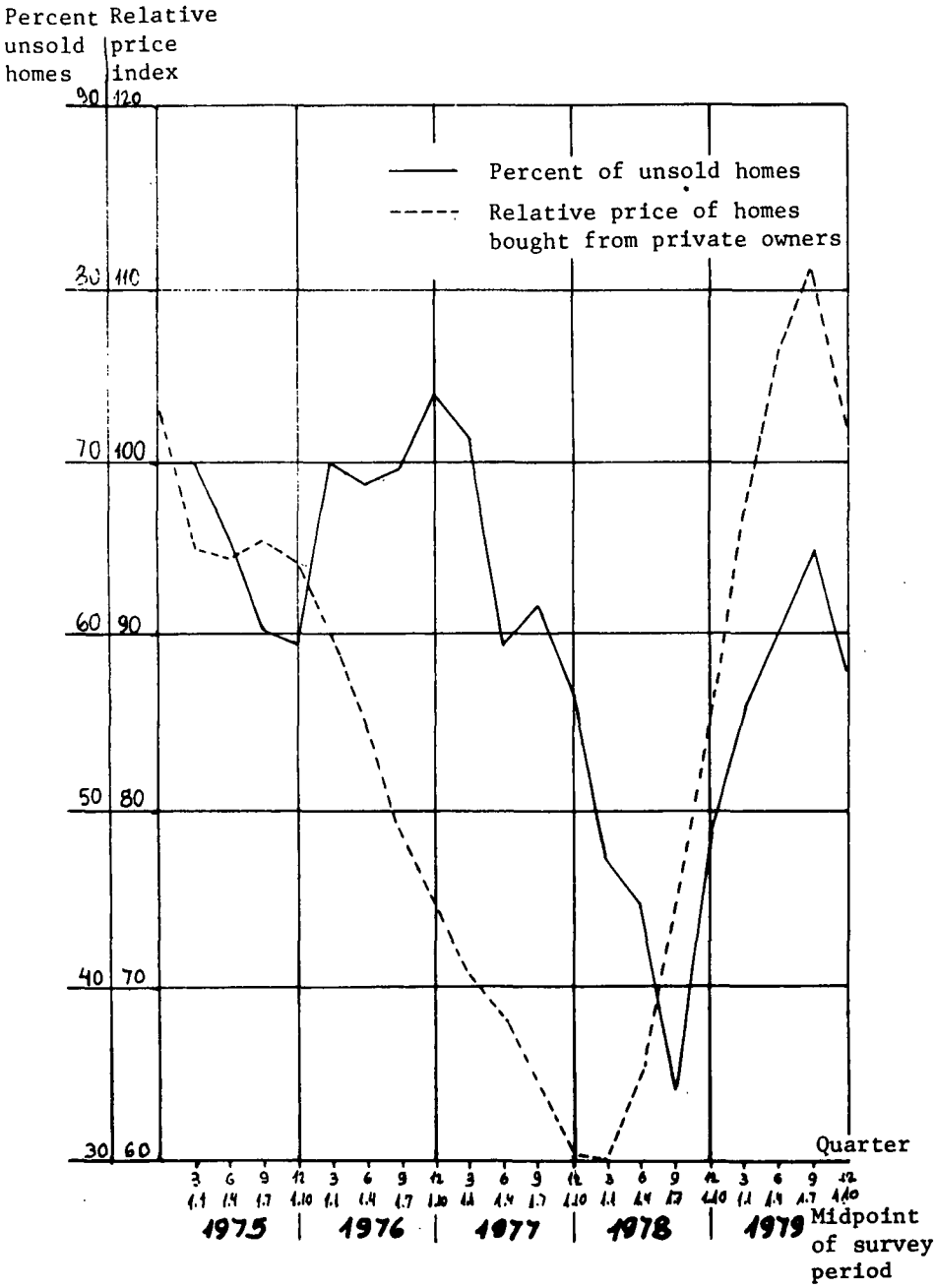
Dwelling price survey period	Change in dwelling prices			Change in dwelling prices relative to consumer price index (%)			Change in dwelling prices relative to index of residential construction input prices		
	Total units	Units from private owners	Units bought through public housing programs	Total units	Units from private owners	Units bought through public housing programs	Total units	Units bought from private owners	Units bought through public housing programs
Jan. 1977-June 1977	1.8	1.7	3.2	-3.5	-3.6	-2.2	-4.2	-4.3	-2.9
April 1977-Sept. 1977	1.3	1.2	2.7	-5.5	-5.6	-4.2	-7.8	-7.9	-6.6
July 1977-Dec. 1977	5.6	5.8	4.1	-6.2	-6.0	-7.6	-4.2	-4.0	-5.5
Oct. 1977-March 1978	11.3	12.2	3.7	-1.5	-0.7	-8.2	0.5	1.4	-6.3
Jan. 1978-June 1978	20.7	19.4	32.7	9.4	8.3	20.3	5.0	3.9	15.5
April 1978-Sept. 1978	22.6	24.2	9.4	12.7	14.2	0.5	7.3	8.7	-4.3
July 1978-Dec. 1978	25.7	26.1	22.3	13.2	13.6	10.2	14.1	14.4	11.0
Oct. 1978-March 1979	30.1	30.7	23.6	14.2	14.8	8.5	17.3	17.9	11.5
Jan. 1979-June 1979	29.0	27.0	51.0	11.1	9.4	30.1	8.2	6.5	26.7
April 1979-Sept. 1979	23.2	24.0	15.7	3.8	4.4	-2.5	-2.3	-1.7	-8.3
July 1979-Dec. 1979	18.1	15.9	39.7	-4.4	-6.2	13.1	-3.6	-5.4	14.0

Note: In calculating the various price ratios the consumer price index and the index of residential construction input prices were adjusted in order to render them comparable to the dwelling price survey period; that is, for each dwelling price survey period the average of each of the two indexes was computed for the relevant months.

Figure VIII-4

UNSOLD UNFINISHED HOMES AS A PERCENT OF TOTAL PRIVATE SUPPLY AND RELATIVE PRICE INDEX OF HOMES BOUGHT FROM PRIVATE OWNERS, 1975-79

(Quarterly data)



vance purchases or the acquisition of an additional home, in addition to some long-term investments of a purely speculative nature. There were two important developments in the 1970s which are likely to reduce this component of housing demand. The first is the broadening of the array of financial investment opportunities offering a hedge against inflation; the second is growing uncertainty about the relative price of real estate. The relative price dropped 40 percent during the last slump (1974-77), while in the previous recession (1964-67) it fell only 10 percent.

There is a close interplay between the real prices of dwellings and the proportion of unsold units in the total supply of new units, especially those in the final stages of construction. According to Central Bureau of Statistics surveys in 21 urban centers, the percentage of unsold units followed the same pattern as the cycle of housing starts and the cycle of real dwelling prices (see Figure VIII-4). In the past these cycles did not display sharp fluctuations, but in recent years the situation has changed. In 1972 the percentage of unsold units started to move up at a fluctuating rate, and it reached its nadir in early 1977. The excess supply which built up during this period caused a continuous and significant decline in real home prices. The percentage of unsold units hit a record high in early 1977, prior to the slump in real prices, which grew more acute at the start of 1978. The subsequent boom reduced the percentage of unsold units, but prices responded with a lag to the change in sales, and the relative price of homes reached record highs only somewhat later on, when rising demand became almost a permanent feature and surpassed the average level of unsold units.

4. FACTORS OF PRODUCTION

The revival of activity in the construction industry (an increase of about 3 percent) affected its productive factors. The number of employees grew by 4.5 percent, cement sales went up 10 percent, and investment in building equipment shot up dramatically[7] (see Table VIII-6). Stocks of equipment increased 6 percent this year, but the capital stock per worker inched up by a mere 1.4 percent.

For a number of years the growth in productive factors—labor, equipment, and other inputs—has been greater than warranted by the sector's output. This can be ascribed to the steady expansion of Arab building activity on the West Bank and in the Gaza Strip, which has absorbed some of the inputs. Another factor is the lack of complete information on maintenance, repair, and renovation work, which probably accounts for an increasing share of total output as the dwelling stock increases. Tax considerations, whose importance has grown with rising inflation (e.g.

[7] Heavy engineering equipment was purchased in anticipation of expanded activity in connection with the military redeployment in the Negev.

Table VIII-8

AVERAGE HOUSING LOAN RELATIVE TO DWELLING PRICES, 1973-79
(Percentages)

	Share of average directed loan in average unit price	Share of average nondirected loan in average unit price	Share of average directed loan in price of two-room unit
1973	28.1	22.2	36.6
1974	23.6	21.5	30.6
1975	28.8	21.6	37.3
1976	27.1	22.8	36.6
1977	32.5	21.5	43.9
1978	29.1	21.9	31.3
1979	16.9	12.2	23.2

Note: The average directed loan was computed by dividing the total value of directed housing loans by the number of directed loans granted by the mortgage banks to the public in a given year. The average nondirected loan was similarly computed. The weight of each type of loan in the average unit price was obtained by dividing the average loan by the average price of privately owned housing units.
Source: Bank of Israel and Central Bureau of Statistics.

the inflationary profits tax on contractors) also encourage renovation and expansion in place of moving to newer, larger quarters.

At the beginning of 1979 fears of a shortage of construction capacity arose in view of the scheduled withdrawal of the army from Sinai. The prevailing feeling of a housing shortage strengthened expectations of a protracted boom in housing starts and led to an optimistic business outlook with the achievement of peace. To remedy the anticipated shortfall in building capacity, contractors stepped up purchases of construction equipment (especially earthmoving equipment and trucks), and stockpiled building materials such as lumber and iron. Construction companies even hesitated to accept work from the Defense and Housing Ministries in the belief that prices would go up during the year.

It turned out that these optimistic expectations were exaggerated, and that the industry was saddled with excess capacity, despite some expansion of residential construction (primarily the renewed surge of public housing starts) and the military redeployment in the Negev.