

CHAPTER XIII

CONSTRUCTION AND HOUSING

1. MAIN DEVELOPMENTS

THE RECOVERY of construction activity, which began in the middle of 1967, accelerated in the year reviewed. Total investment in construction for the year as a whole came to about IL 1,580 million, a real increase of some 16 percent over 1967. The output of the sector, which includes, in addition to the investment estimates, defense construction and maintenance and repair work, grew at an even faster rate—by approximately 20 percent, to reach IL 1,925 million.

Despite these substantial growth rates, investment and output were still below their peak level of 1965, though they exceeded the 1966 figures. The value of nonresidential construction put in place was back to its 1965 high after advancing 21 percent. As for new residential construction, while it gained nearly 8 percent, it was still fairly low compared with the previous boom period.

Following are the components contributing most to the expansion of construction activity in 1968 (in the order of their importance):

(a) Noninvestment output (for security purposes, maintenance, and repair work), which accounted for about 33 percent of the total rise in construction activity.

(b) Construction for the transportation and communications sector (including the new petroleum pipeline), which accounted for about 23 percent of the increment.

(c) Public institutions and services (public buildings for the Government, local authorities, and nonprofit institutions), which contributed approximately 16 percent.

(d) Private residential construction, which also accounted for about 16 percent.

The trend of the sector's development can be traced from the data on construction starts. In the middle of 1967 the sector began to emerge from the slump, and in 1968 the area of building started was up nearly 32 percent. The figure rose steadily throughout the year, tapering off in the third quarter at about one million square meters. With the exception of farm structures, the growth encompassed all sectors. It was particularly outstanding in housing construction, which advanced 45 percent; the biggest contribution to this gain was made by private construction, which recorded an increase of nearly 70 percent. Despite the rapid expansion of residential building starts, the level was still below that of

Table XIII-1
INDICATORS OF CONSTRUCTION ACTIVITY, 1963-68^a
 (rounded figures)

	1963	1964	1965	1966	1967	1968
Construction output (IL million, at 1967 prices)						
Total	1,715	1,905	2,050	1,790	1,510	1,810
Residential	820	910	975	790	530	575
Nonresidential	760	860	935	840	750	965
Other ^a	135	135	140	160	225	325
Value of new construction (IL million, at 1967 prices)						
	1,580	1,770	1,910	1,630	1,280	1,490
Building starts (thousand m²)						
Total	4,550	5,610	4,730	3,420	2,765	3,650
Residential	3,160	3,750	3,090	2,060	1,630	2,360
Nonresidential	1,390	1,860	1,640	1,360	1,140	1,290
Number of dwelling units started	38,400	48,400	37,600	22,500	18,850	24,050
Number of dwelling units completed	39,700	38,000	38,400	37,600	27,850	22,200
Number of employed (annual average)	82,400	87,000	92,000	75,600	63,000	73,000 ^b
Construction equipment purchased (IL million, at 1968 prices)						
	65	68	72	25	8	62
Domestic sales of cement (^{'000 tons)}						
		975	1,035	855	640	950
Domestic sales of reinforcing bars (^{'000 tons)}						
	86	94	113	82	70	103

^a Defense construction, maintenance, and repair work.

^b Excluding building workers from the administered areas.

SOURCE: Central Bureau of Statistics, except for sales of cement and reinforcing bars, which are from the factories, and data on the value of other new construction, which are Bank of Israel estimates.

the pre slump years because of the low volume of public building starts in 1968 (see Table XIII-3). On the other hand, the slump still left its traces on the area of completions, but here too efforts were made to expedite the completion of buildings in response to mounting demand.

The stepping-up of activity was accompanied by a rapid increase in inputs of building materials and other factors of production. Gainful employment was up 16 percent or more compared with 1967, with Arab workers from Israel, including East Jerusalem, and the administered areas accounting for much of the increment. Consumption of such major inputs as cement, gravel, and reinforcing bars went up even more rapidly during 1968 and neared the level of the boom years 1964 and 1965. Outlay on imported and local construction equip-

ment showed a similar development (a rise from IL 8 million in 1967 to IL 62 million).

The marked disparity between the growth of employment and that of the principal building materials and construction equipment is attributable to the increase in the relative share of "other construction" and the larger volume of building starts, both of which require comparatively less labor.

While the demand for homes has been on the rise since mid-1967, the volume of residential construction completed was lower in 1968 than in any other year of the present decade. The result was a dwindling of the stock of unsold dwellings which had accumulated in earlier years and a rise in prices, particularly in Jerusalem. A similar but more moderate development also characterized the market for industrial and commercial premises. It should be noted, however, that the bulk of the nondwelling investment demand was for equipment, and that most of the incremental demand for buildings could be supplied from the existing stock. This stock was larger, relative to the volume of construction for these purposes, than the stock of unsold housing units.

After two years of slump, the sector experienced an improvement in profitability in 1968. Since output prices, both of buildings for sale and of other construction work, rose more rapidly than the price of inputs purchased from the rest of the economy, the product of the construction sector expanded at a higher rate than output. Those benefiting most from this development were building firms, but also building workers, particularly skilled labor.

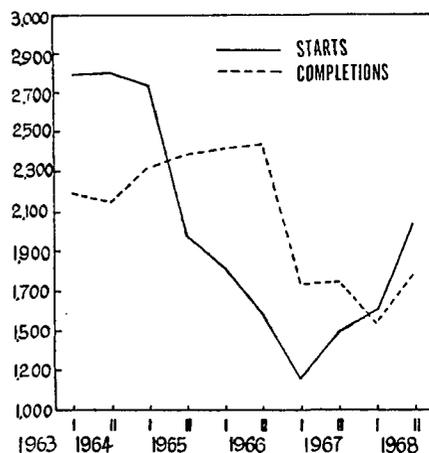
In view of the growing shortage of labor experienced in the summer of 1968 (especially in Jerusalem) and the numerous projects—both of public buildings and of publicly sponsored residential construction—still in the initial stages, it was decided at the end of 1968 to regulate the construction of public buildings.

It is still too early, however, to judge to what extent this will prove successful in overcoming certain vested interests.

The expansion of building starts was mostly concentrated in Jerusalem, but there were also substantial increases in the Tel Aviv, Haifa, and Central Districts. In the Northern and Southern Districts the volume of starts remained at its 1967 level (a rise in private building offset a cutback in public building in

Diagram XIII-1
TOTAL AREA OF BUILDING CONSTRUCTION STARTED AND COMPLETED, 1964-68

(thousand sq. meters)



these districts). This development is explained by the change in the composition of immigration and by the contribution of the nonprofit institutions to the expansion of building activity (these institutions are generally situated in the main population centers).

2. BACKGROUND TO DEVELOPMENTS IN 1968

(a) *Growth factors*

The much higher level of construction activity in 1968 as compared with the previous year can be ascribed, on the one hand, to the upswing in demand which began in the second half of 1967, and on the other hand to the extremely low level during the slump period.

Various developments after the Six Day War stimulated demand for the sector's output. Much of the incremental demand came from the defense establishment (for the building of shelters throughout the country and the fortification of border settlements). Other factors augmenting demand were construction for the transportation and communications sector (in particular the oil pipeline) and for the tourist industry (hotels); the erection of public buildings (the rehabilitation of Mount Scopus and the transfer of Government offices to Jerusalem); the bigger volume of residential construction, demand for which went up in the wake of the large inflow of immigrants, the larger number of marriages, and the rise in the rate of natural population increase; and the general improvement in incomes and the brighter economic outlook.

Another factor contributing to the growth of construction was the renewal of work on various public buildings which had been frozen under the economic retrenchment policy. In addition, from the middle of 1967 onward work got under way on various projects which had been decided on during the period of economic slowdown with a view to employing part of the idle factors of production. The stronger financial position of local authorities made it possible to erect and enlarge public structures and undertake other local development projects—work that had been curtailed during the economic slowdown as a result of Government pressure and the sharp drop in the authorities' income from private building operations.

In this context it should be stressed that even had it not been for the aforementioned factors, the sector could still have been expected to pull out of the slump, though perhaps not to the same degree or at the same rate as it actually did. In 1967 building starts totalled only 2.8 million square meters, as against an average of 4.9 million in 1962–65. This is explained by the existence of a large inventory of unsold buildings, which was responsible for the further curtailment of new construction and at the same time made it possible to meet the eventual excess of demand over the volume of current starts. At any rate, it is plausible to

Table XIII-2
 VALUE OF NEW CONSTRUCTION, BY TYPE, 1965-68

	1965	1966 (at 1967 prices) ^a	1967	1968		Percent increase or decrease (-) in 1968 (at 1967 prices)		Percentage distribution	
				At 1967 prices	At current prices			1968 output (at 1967 prices)	Incre- mental output in 1968
Residential									
Public	353.2	262.8	155.0	149.2	155.9	-5.8	-3.7	8.2	-1.9
Private	623.6	524.4	377.0	426.6	456.4	49.3	13.1	23.5	16.2
Total residential construction	976.8	787.2	532.3	575.8	612.3	43.5	8.2	31.8	14.3
Nonresidential									
Agriculture ^b	30.4	32.3	32.8	32.6	34.9	-0.2	-0.6	1.8	—
Industry, mining, quarrying	154.8	92.8	76.4	107.7	115.2	31.3	41.0	5.9	10.3
Electricity, water	101.8	103.6	89.9	85.8	91.7	-4.1	-4.6	4.7	-1.4
Transportation and communications	220.7	192.5	190.7	259.6	275.9	68.9	36.1	14.3	22.7
Commercial premises	63.1	52.6	28.2	34.4	36.1	6.2	22.0	1.9	2.0
Hotels and other guest accommodation	32.4	20.9	22.5	30.3	32.2	7.8	34.7	1.7	2.6
Public institutions and services	332.0	346.4	310.6	360.2	380.5	49.6	16.0	19.9	16.3
Total nonresidential construction	935.2	841.1	751.1	910.6	966.5	159.5	21.2	50.3	52.6
Thereof:									
Buildings	549.9	501.8	408.4	484.4	512.7	76.0	18.6	26.7	25.0
Other construction work	385.3	339.3	342.7	426.2	453.8	83.5	24.4	23.5	27.5
Total value of new construction	1,912.0	1,628.3	1,283.4	1,486.4	1,578.8	203.0	15.8	82.0	66.9
Noninvestment output^b	140.0	160.0	225.0	325.5	345.0	100.5	44.7	18.0	33.1
Grand total	2,052.0	1,788.3	1,508.4	1,811.9	1,923.8	303.5	20.1	100.0	100.0

^a It has been assumed, owing to the lack of definite information, that no change took place in the prices of building construction in 1965-67 and that in roadbuilding there was a slight rise in 1966 and a slight drop in 1967. In 1968 prices rose as follows: residential construction—6.3 percent; nonresidential construction—5.8 percent, other construction—5.7 percent; total construction—6 percent.

^b Excluding afforestation, drainage, and land reclamation and conservation.

^c Defense construction, maintenance, and repair work.

SOURCE: Central Bureau of Statistics and Bank of Israel estimates.

assume that the low level of starts in 1967 could not have persisted for any length of time, even had there not been a strong upturn in economic activity, accentuated by the various exogenous factors increasing demand for construction since the middle of 1967.

Thus the decline in the supply of newly finished buildings, particularly residential—a result of the cutback in starts during the slump—and the upswing in demand from mid-1967 onward explain the reduction of the unsold stock and the renewed rise in building starts.

(b) *Output, by type of construction*

A breakdown of output according to type shows that whereas nonresidential construction regained its record level of 1965, residential building was still far below its peak. This was the second year running in which the value of new

Table XIII-3

AREA OF CONSTRUCTION STARTED AND COMPLETED, BY TYPE, 1962-68
(thousand sq. meters)

	Annual average 1962-65	1966	1967	1968 ^a	Percent increase or decrease (-)	
					1968 as against 1967	1968 as against 1962-65
Starts						
Residential	3,322	2,057	1,629	2,358	44.8	-29.0
Private	1,906	1,496	1,001	1,693	69.1	-11.2
Public	1,416	561	628	665	5.9	-53.0
Nonresidential	1,569	1,364	1,137	1,289	13.4	-17.8
Total	4,891	3,421	2,766	3,647	31.9	-25.4
Thereof:						
Private building	3,077	2,308	1,648	2,523	53.1	-18.0
Public building	1,814	1,113	1,118	1,124	0.5	-38.0
Completions						
Residential	2,936	3,116	2,373	1,954	-17.7	-33.4
Private	1,651	1,888	1,590	1,336	-16.0	-19.1
Public	1,285	1,228	783	618	-21.1	-51.9
Nonresidential	1,344	1,755	1,127	1,391	23.4	3.5
Total	4,280	4,871	3,500	3,345	-4.4	-21.8
Thereof:						
Private building	2,671	3,058	2,333	2,284	-2.1	-14.5
Public building	1,609	1,813	1,167	1,061	-9.1	-34.1

^a Including East Jerusalem.

SOURCE: Based on Central Bureau of Statistics data.

residential construction was less than that of nonresidential construction. If noninvestment output (for defense purposes, maintenance, and repairs) is added, the drop in the relative share of residential building stands out all the more. Nevertheless, it is premature to conclude that this signals a change of trend, for residential building is obviously on the upgrade, as is evident from the larger volume of starts in 1968. If account is taken of the various special projects implemented during the year—such as the oil pipeline, the chemical complex at Arad, and the Dead Sea Works' expansion program—1968 can be regarded as an exceptional year as regards the breakdown of output by type of construction, and hence no hasty conclusions should be drawn concerning future trends.

The above-mentioned changes had a differential effect on demand for the various factors of production, that for equipment, cement, reinforcing bars, and the like rising more rapidly than demand for labor. Besides the decline in the relative share of residential construction, defined here entirely as building construction, there was a drop in the share of nonresidential building construction and a rise in the weight of "other construction work" (roads, dams, ports, oil pipelines, electric power lines, etc.). Such work requires a relatively higher proportion of building and transport equipment in comparison with residential construction. The much larger volume of defense construction and the high percentage of building construction in its early stages in 1968 also tended to increase the share of building and transport equipment.

3. RESIDENTIAL CONSTRUCTION

The outstanding developments in residential construction in 1968 were the stronger demand for dwellings on the one hand, and the smaller supply of newly completed units on the other. As a result, the inventory of unsold completed units accumulated during the slump years was reduced and signs of excess demand appeared, reflected *inter alia* in mounting prices in various population centers, especially Jerusalem.

(a) *Volume of construction*

The value of new residential construction totalled IL 575 million in 1968. This represents a moderate growth of only 8 percent in real terms as compared with 1967, when construction activity was further hit by the Six Day War. This sluggish rise as compared with that in building starts is explained by the fact that most of the 1968 starts were made in the second half of the year. Another factor was the usual time-lag due to the long gestation period characteristic of construction activity.

The excess of demand over current supply in 1968, besides reducing the unsold dwelling stock and generating expectations of a shortage, resulted in a marked increase in building starts. The number of units begun rose from 18,840

in 1967 to 24,030. All of this increase was in private building (up from 9,720 to 15,620), whereas public building showed a decline from 9,210 units in 1967 to 8,410 in the year reviewed. In 1961-65, when immigration was larger, an average of some 23,700 units per annum were started in public housing estates. The peak was reached in 1964, when the figure rose to nearly 27,300.

The volume of current completions is primarily determined by the number of starts in the preceding period. This accounts for the drop in the number of finished units from 27,850 in 1967 to 22,200 in 1968 (in 1963-66 completions averaged 38,600 per annum). With the upturn in demand since the second half of 1967, efforts have been made to expedite the completion of dwellings started during the slump and on which work had been held up. This is reflected by two jumps in the volume of completions: the first took place at the end of 1967, mainly in Jerusalem, the first area to experience a rise in demand; and the second occurred in the third quarter of 1968, with the coastal region also reporting a higher figure.

(b) *Demand for housing*

Since the middle of 1967 demand for housing has risen strongly. There has been an upsurge of purchases of both completed and semifinished units, and even of those still in the planning stage. In addition, a larger number of persons joined the Saving-for-Housing Scheme in 1968, ending a decline that had persisted from 1964 through 1967.

The heavier demand for homes is explained primarily by the rising trend in the population, marriage rate, employment, and incomes.

The population increase in 1968 was a third greater than in the previous year. This was accompanied by an even larger growth in the number of new households in need of their first home, a development due to the expansion of immigration¹ and the larger number of marriages.² The transition from a surplus stock of unsold units, accompanied by a decline in prices, to an upturn in demand and prices, reinforced the stimulative effect of the better employment and income situation and the brighter business outlook on the demand for housing. To these factors should be added the realization of plans for buying homes which had been postponed during the slump, and the advancing of purchases for fear of a further rise in prices (both general and real estate).

As in former periods of swelling demand accompanied by mounting prices, there apparently arose in 1968 a speculative demand for immovable property. The

¹ The number of new immigrants, including tourists settling in the country, temporary residents, and residents returning after an absence of more than one year, rose from approximately 18,000 in 1967 to nearly 30,000 in 1968. This increase was accompanied by a decrease in emigration.

² The number of marriages was fairly stable in recent years, ranging around 18,000 a year. The figure went up from 18,200 in 1967 to 20,500 in the year reviewed.

final abolition of the linkage of mortgage loans probably also helped to augment demand. The replacement of linkage by the payment of a fixed higher interest rate actually made mortgage loans more expensive in view of the relative stability of prices as from the middle of 1966. But since these are long-term loans, it is questionable whether the stability of prices during the recession generated expectations of its continuation during a boom period. It also seems that the public preferred the certainty of fixed principal and interest payments over the uncertainty and risk involved in linked loans. Various indicators point to a rise in gross credit granted by mortgage banks for construction and housing purposes in 1968,¹ and this despite the decline in the volume of current completions that year. The growth in outstanding credit as contrasted with the drop in completions may be explained by the financing provided for the purchase of homes from the existing stock of unsold units, and by the larger average size of the mortgage loans extended to both new immigrants and veteran residents because of the rise in housing prices. The cancellation of the linkage clause, as already noted, was another contributory factor.

The devaluation of November 1967 apparently had a smaller impact on construction activity than did the previous one (1962). The relatively small change in the exchange rate in 1967 as compared with that in 1962 weakened the possible influence of the devaluation on the demand for real estate (an assumption strengthened by the decline in foreign currency conversion). The uncertainty created by the international monetary crisis may have exerted a relatively greater influence on the demand for real estate in the course of 1968.

(c) *Demand for and supply of housing in 1968*

During the year reviewed a strong demand developed for immigrant housing, but there was also a greater demand on the part of the local populace. During the recessionary period the Government transferred some 5,000 units originally intended for immigrant absorption for raising housing standards in the development areas. In addition, purchase and rental terms were made more attractive, but the stimulative effect of these steps was largely limited by the fact that their application was confined to public housing estates. It would seem that there was room for public assistance in the purchase of homes—without restricting this necessarily to public housing estates—for such groups as young couples, evacuees of slum quarters, and large families, who are reluctant to assume the burden of financing the purchase of a new home or who lack the wherewithal for doing so. As these subsidized groups eventually augment the demand for housing, and to a certain extent receive public aid, it should be noted that during a period of sagging economic activity, unemployment, underutilization of construction and industrial equipment, and low consumption of

¹ See the discussion in Chapter XVII, "Financial Institutions".

building materials, the cost to the economy of subsidizing such groups is much lower than in a period of full employment.

Even in 1968, when there was a strong upswing in demand, the number of dwelling units started throughout the country came to only some 24,000, as contrasted with an annual average of approximately 42,400 in the years 1961–65.¹ The gap was filled from the inventory of unsold units existing since the onset of the recovery, but most of this stock was depleted in the course of the year.² Greater use was also made of the residential facilities of the *ulpanim* (which provide intensive Hebrew courses) and immigrant absorption centers (where newcomers to the country are provided with quarters for fairly extensive periods), but this source too was nearly exhausted at the beginning of 1969. Most of the demand was met by private construction, the number of starts rising from 9,720 in 1967 to 15,620 in the year reviewed. In public housing construction, the figure did not start to move upward until the third quarter, and the average level for the year was even below that of the slump period. (The area of starts, as opposed to the number of units begun, grew by about 6 percent, owing to the erection of larger dwellings, principally in East Jerusalem, which more than compensated for the decline in the number of units.)

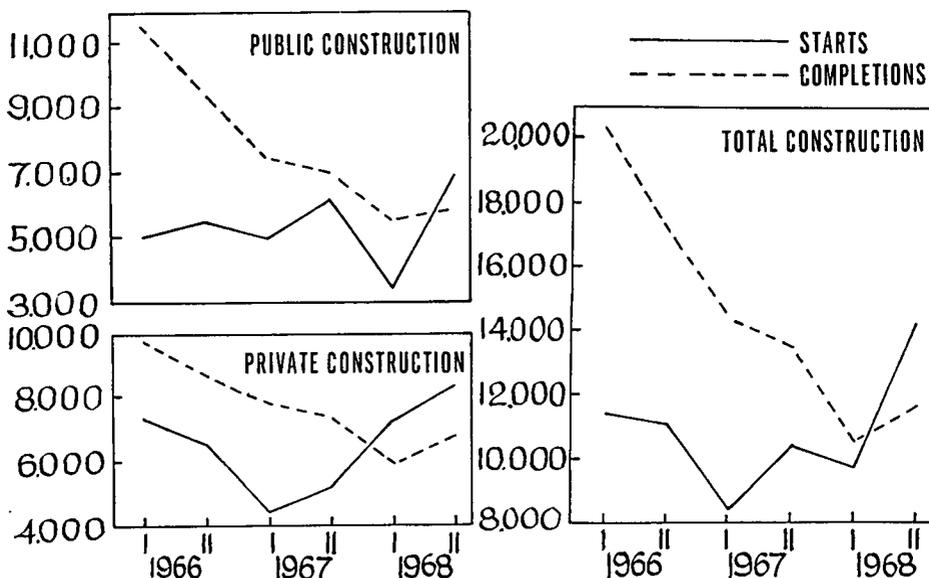
(d) *The residential construction market*

In the past a distinction could be made between residential construction (both private and public) for the regular commercial market and subsidized construction: the former was of a medium or high standard and influenced mainly by market forces, while subsidized construction, initiated and financed by the public sector, was intended for new immigrants and persons evacuated from transit camps or slums. The surplus of new dwelling units and the change in the composition of immigration during the period of economic slowdown resulted in the gradual blurring of the distinctions in housing construction as regards initiating sector and purpose. With the growth of immigration from the affluent countries since the Six Day War, the boundary lines have become even less clear. Whereas during the recessionary period homes originally intended for new immigrants were used for other purposes, in 1968 units built under the Saving-for-Housing Scheme, for new couples, and even for evacuees of slums were put at the disposal of new immigrants. A growing proportion of the new arrivals are both ready and able to purchase larger homes from private builders

¹ The population grew by an average of approximately 89,000 per annum in 1961–65 and by about 67,000 in 1968.

² A measurement of the stock of vacant dwellings in August and October 1967, relating to the 33 largest local authorities in the country, reveals that in 1968 some 15,000 units were completed and 7,000 were sold from the unsold stock, making a total of roughly 22,000 units. The supply of newly finished dwellings in these communities in 1969 is estimated at only some 17,500.

Diagram XIII-2
NUMBER OF DWELLINGS STARTED AND COMPLETED,
BY INITIATING SECTOR, 1966-68
 (half-yearly data)



in urban centers, and the increase in personal transfers from abroad in 1968 should perhaps be viewed in this conjunction.¹ Owing to the shortage of housing, which was particularly acute as regards large publicly financed dwellings in urban centers, the Government also turned to the private building market. It purchased whole blocks of units from large and medium-sized building companies, and recently even individual units (including some that were second-hand). In addition, the number and size of loans granted from public funds to new immigrants for the individual purchase of housing in the regular market were increased considerably. Under the 1969/70 budget, it was decided to apply this solution also to evacuees of slum areas and other subsidized groups.

These developments partly account for the much greater volume of private construction starts in the year reviewed, as contrasted with the stagnation in public construction. It is even conceivable that part of the private building starts can be attributed to the fact that some of the builders launched new construction counting on the encouragement of the Ministry of Housing, which was finding it difficult to meet the demand. However, it is still too early to regard the change in the relative share of private building in 1968 as indicative of a deliberate policy to transfer to the private sector the initiation and planning of subsidized construction. In some measure it can be ascribed to the difficulties of stepping up public starts to an appreciable degree in the short run.

¹ Private transfers in cash rose from \$ 62.5 million in 1967 to \$ 90.3 million.

(e) *Building standards*

Building standards rose in 1968 as regards the size of the units (i.e. the number of rooms and floor area). In public construction, the share of four-room dwellings went up from 4.4 to 15.3 percent, mainly at the expense of two-room units. There was a similar development in private construction, the proportion of units with four or more rooms advancing from 19 to 27.5 percent, and that of two-room units declining from 26 to 15 percent. This development was due to the larger immigration from affluent countries and the general improvement in the economic situation. In the case of public construction, another factor was the erection of housing estates in East Jerusalem. Since living standards can be expected to improve steadily, and since the life of a dwelling is about 50 years or more, this is clearly a development in the right direction.

(f) *Housing prices*

The index of housing prices published by the Central Bureau of Statistics shows a moderate rise in 1968. From the beginning of 1967 until the middle of 1968 the index advanced some 12 percent. Prices went up most steeply in Jerusalem, and to a lesser extent in the Tel Aviv area. These rates appear moderate in view of the developments in the housing market since the middle of 1967.¹

In assessing the measured rate of increase, it should be noted that there may be some changes in prices that are not expressed in the declared price. In a boom period no price reductions are given as a rule, larger cash advances are demanded, and contractors charge extra for changes in building plans, as well as for such development costs as the paving of roads or sidewalks, connection to the water, electric, and sewage networks, etc.²

4. NONRESIDENTIAL CONSTRUCTION

The total value of construction for nonresidential purposes rose more than 20 percent in the year reviewed, almost regaining its record volume of 1965. This growth was accompanied by a number of changes in the sectoral breakdown.

Most of the expansion was due to special projects undertaken by the trans-

¹ See also Chapter VI, "Prices", pp. 123–24.

² There may be a downward bias in the measurement of housing prices, since the unsold stock at the end of 1967 included units which were difficult to sell because of building faults or to the unsuccessful combination of high-standard building and unfavorable sites. The big construction companies, which had such units on their hands, apparently sold them as soon as some demand began to develop for them. In calculating the rise in housing prices, these units were probably not distinguished from those that were free of the above-mentioned handicaps and were sold in 1967.

portation sector (the big oil pipeline, roads, and the railway) and the mining and quarrying sector (the chemical complex at Arad and the Dead Sea Works' expansion program), as well as to the expediting of work on building begun during the previous period. The latter development was responsible for the increase of some 23 percent in the area of completions as compared with 1967, whereas according to the trend in the volume of starts in previous years, the area of completions in 1968 could have been expected to decrease.

The increase in the area of nonresidential buildings started totalled only 13 percent, and even this is explained primarily by the particularly low level during the first half of 1967, when the war and preceding period of tension affected such activity. Compared with the second half of 1967, the volume of starts in 1968 remained relatively stable.¹

This moderate rise in building starts as compared with the big increase in total investment in the productive and service sectors (including an even steeper rise in expenditure on equipment) may be explained by the following factors:

(a) The existence of a large stock of unused completed industrial premises (including workshops), as well as of commercial and office premises under construction or newly completed. This stock was the result of a record volume of building starts during the prerecession period, which exceeded the demand for such buildings even then (see Bank of Israel, *Annual Report 1967*, p. 352). In this connection, it is interesting to compare the volume of current nonresidential building completions—which in 1968 was greater than in any year of the 1962–65 period—with the volume of current residential building completion—which in 1968 was about one-third below the annual average for the years 1962–65 (see Table XIII-2). Obviously, the greater the volume of current completions, the smaller the pressure to expand the volume of starts.

(b) The revival of economic activity after the Six Day War was accompanied by changes in production patterns necessitating the acquisition of additional new equipment, but not necessarily of new buildings. The shorter life of equipment as compared with buildings also tends to gradually increase the relative share of equipment in total capital expenditure.

(c) Insofar as a need for new buildings was felt in 1968, it should be noted that considerable time elapses between the launching of a project and the actual start of work (the decision itself, the selection and acquisition of a site, the procurement of the necessary permits, and the preparation of the site require a fairly long period of time).

¹ Preliminary data on building starts tend to be understated, owing to statistical deficiencies and the time-lag in reporting to the Central Bureau of Statistics. This problem is common to all types of construction, but is more marked in the case of nonresidential construction. It follows that the later the period in question, the greater is the probability of an underestimate. Hence, the volume of building starts in 1968 may have actually been greater than shown by the preliminary data cited here (the revised figure for nonresidential building starts in 1967 is 14 percent higher than the figure cited in the Annual Report for 1967).

The changes observed in 1968 in the weights of the various sectors in the total value of nonresidential construction, mainly the higher share of transportation and communications and of the mining and quarrying sector, together with the bigger weight of "other construction work" at the expense of buildings, do not necessarily indicate a change in the general trend, as they may prove to be temporary. This development is explained by the relatively large number of special projects initiated and by the unusually small volume of industrial and business premises started.

Table XIII-4
AREA OF NONRESIDENTIAL CONSTRUCTION, 1963-68
(thousand sq. meters)

	1963	1964	1965	1966	1967	1968	1967		1968	
							I	II	I	II
Construction started										
Agriculture and irrigation	177	194	108	176	190	148	105	85	59	89
Industry and crafts	542	720	437	288	232	248	98	134	121	127
Commercial and office buildings, hotels, etc.	214	315	330	246	175	209	94	81	104	105
Public buildings	456	628	768	654	540	684	218	322	355	329
Total	1,389	1,857	1,643	1,364	1,137	1,289	515	622	639	650
Construction completed										
Agriculture and irrigation	174	175	191	140	136	174	75	61	98	76
Industry and crafts	476	560	587	510	282	295	160	122	130	165
Commercial and office buildings, hotels, etc.	110	206	274	298	206	321	88	118	112	209
Public buildings	403	460	547	807	503	601	219	284	289	312
Total	1,163	1,401	1,599	1,755	1,127	1,391	542	585	629	769

SOURCE: Central Bureau of Statistics.

On the other hand, there appears to be a long-run rising trend in the relative share of public institutions and installations, in line with the growth of incomes and living standards. But here too there were special reasons for the relatively high level of construction of public buildings in recent years:

(a) The overcoming of the lag in the construction of public buildings in new residential areas. There was a rapid expansion of residential construction in 1961-64, especially for new immigrants. Part of the construction of public build-

ings and installations during the years 1964–69 can be viewed as the completion of the infrastructure of these housing projects.

(b) A deliberate attempt to take advantage of the lower prices prevailing during the slump period.

(c) The absorption in 1967–68 of a larger number of new immigrants in an institutional framework (residential *ulpanim*, absorption centers, and hostels for foreign students), as well as the special effort to transfer Government offices and other institutions to Jerusalem.

These factors explain the increased construction of public buildings in 1968, reflected in the volume of starts and completions alike. In addition, with their coffers growing fuller after the Six Day War, the local authorities stepped up their building activities, after having experienced financial difficulties during the recessionary period.

The large increase (percentagewise, but not in absolute terms) in the area of commercial, office, and hotel premises started must apparently be ascribed mainly to the expansion of hotel construction following the pronounced growth of tourism. The rise in completions, however, was due also to the stronger demand for commercial and office buildings following the improvement in the general economic situation.

5. FACTORS OF PRODUCTION

The much higher level of construction activity in 1968 was reflected by increases in gainful employment in this sector, as well as in the acquisition of building equipment, the number of building companies, the production and marketing of building materials, and imports of current inputs.

Outlay on building equipment went up to a very marked degree—by nearly sixfold compared with 1967. Imports of current inputs doubled, while purchases of local cement and reinforcing bars were nearly half as great as in 1967, purchases of gravel increased by 53 percent, and the production of blocks by 52 percent. Expenditure on the haulage of minerals was 35 percent larger than in 1967. These items are used most heavily in the early stages of construction, and they are also of considerable importance in “other construction work”. These growth rates accord with what has already been stated concerning the factors expanding the sector’s output since the Six Day War. More surprising is the increased production of the materials and other items required mainly for the finishing stages. Even though the growth rates were lower, they were still quite substantial: lavatory bowls—16 percent; wash basins—29 percent; wall tiles—32 percent; bathtubs—25 percent; electric meters—50 percent; sheet glass—53 percent. The larger output of these products in a year when the stock of buildings under construction decreased (i.e. until the middle of 1968) and the volume of building completions likewise fell off requires an explanation. The

reason should perhaps be sought not in a corresponding growth of the demand for these items in the year reviewed, but in the replenishing of inventories: in 1967 production was below current requirements, the difference being met from existing stocks. In certain cases, such as glass, there was also an unexpected rise in demand, which hastened the depletion of stocks. Another reason was the consumption of such products for the repair and renovation of existing buildings. It is also conceivable that part of the sales were made to the administered areas, since new construction there ceased almost completely after the war, but considerable repair and renovation work has been carried out, including the repair of war damage.

(a) *Input prices*

The index of residential construction input prices averaged 4.4 percent higher in the year reviewed, while the index of input prices in roadbuilding went up by 6.6 percent. The rise in end-year levels was smaller, totalling 3.8 and 5.2 percent respectively. The revival of construction activity after a fairly prolonged slump was apparently accompanied by price increases in excess of those reflected by these two input indexes. The abolition of special concessions, the tightening of credit terms, and disguised price increases (e.g. a changeover to piece rates, the addition of fictitious overtime, special charges for "urgent work", etc.) are not fully reflected by these indexes.

A detailed examination of the indexes discloses that many building materials became dearer toward the end of 1967 and the beginning of 1968, but their prices subsequently firmed despite the continued growth of demand. This was partly due to the existence of idle production capacity in the building materials industry at the onset of the recovery, which made it possible in some cases to expand output without generating upward pressure on prices from the costs side. In cases where the devaluation increased costs, the rises were passed on to the customer, and this probably accounts for the concentration of price increases during a short period at the end of 1967 and the beginning of 1968.

Where the growth of demand was particularly strong and supply was unable to keep pace, prices rose steadily throughout the year. Examples of this are provided by quarry products, such as sand and gravel (but not stone or marble, which were imported from Judea and Samaria), cement products, mechanical equipment, transport vehicles, reinforcing bars, and skilled labor.

In contrast to the comparatively moderate increase in the prices of purchased inputs, there was apparently a precipitate rise in the prices of the sector's output. No measurement is available of the latter, but the higher prices of buildings for sale were accompanied by an increase (often considerably greater) in the prices of civilian construction work performed on a contract basis. In some instances, where contracts were signed during the slump, the shortage in

1968 of heavy engineering equipment, trucks, or such workers as ironbenders and scaffolding erectors led to the cancellation of some contracts and the revision of others. An exception was Jerusalem, where the availability of Arab labor and cheap stone had a restraining effect.

As a result of the above developments, value added by construction went up more rapidly than did the sector's output, with the main beneficiaries being contractors and skilled workers.

The prices of building plots, which were the first to be affected by the slump (they began to drift downward as early as the end of 1963) and subsequently declined very sharply, turned upward in 1968 and at a stronger rate than other input or output prices. Simultaneously with the mounting demand for building plots, supply may have contracted owing to the lowering of property rates after the unification of the municipal and governmental property tax. (It will be recalled that according to some quarters the raising of the tax on building plots in 1963 and 1964 contributed to the intensification of construction activity at the height of the boom.)

One outcome of this situation was the enhanced profitability of purchasing old houses and razing them in order to put up new buildings. The decrease in "key money" in 1968 (owing to the impending deliberations of the Knesset on the future of the Tenant Protection Law and the raising of rents) contributed to this development, as it became cheaper to induce tenants to vacate premises.

(b) *Employment and wages*

The employment situation in the construction sector underwent a drastic change from the middle of 1967 onward. From large-scale unemployment, which was more serious than elsewhere in the economy and had led to the dismissal of about one-third of all building workers during the slump, the sector passed to a state of full employment¹ within a single year. The average annual number of persons employed was over 16 percent higher in 1968 than in 1967, and the figure reached nearly 76,000 in the last quarter of 1968.

To this increase in employment, which is obtained from manpower survey data, must be added the incremental labor supply from the administered areas.² According to a survey carried out by the Building Workers' Union in November 1968, approximately 2,000 workers from the administered areas were employed in Israel—most of them hired other than through the labor exchanges. At the end of 1968 and the beginning of 1969, the absorption of building workers from Judea, Samaria, and the Gaza Strip was accelerated, with the aid of the Military Government and in coordination with the labor exchanges.

The continued absorption of labor from the administered areas has helped

¹ The reference is to workers registered as seeking work in the building trades.

² Excluding labor from East Jerusalem, which is included in the manpower surveys.

to alleviate the shortage of building workers (at the beginning of 1969 vocational training courses, including the building trades, were opened in these areas). According to the aforementioned survey of the Building Workers' Union, there was a shortage of some 1,600 workers in November 1968—in the main iron-benders and scaffolding erectors, who are required for the early stages of construction. On the other hand, about 300 workers in trades required for the advanced stages of construction were still unemployed in the coastal areas. From data of the National Employment Service, it is apparent that demand for labor grew heavier in the course of 1968. The daily average of unemployed skilled building workers declined from 971 in October 1967 to 233 in October 1968. At the same time, there was a gradual increase in unfilled requests for building workers due to a shortage of labor, from less than 1 percent of the total number of requests at the beginning of 1967 to 26.8 percent in October 1968.

The more moderate expansion of employment, relative to that of building equipment and the consumption of building materials, is explained by the composition of the output increment in 1968. The labor component is very high in the advanced stages of building construction, but comparatively low in the early stages or in other types of construction work (e.g. the laying of the oil pipeline).

Two other phenomena revealed by the manpower surveys were the growing proportion of self-employed in construction (they accounted for 21 percent of incremental gainfully employed in 1968, whereas their share in total employed in 1967 was 14 percent) and the higher proportion of non-Jewish workers. The latter were among the first to be laid off during the building slump, and when activity began to pick up they accounted for about half the total accessions—far more than their usual weight in gainful construction employment. This development was reinforced by the hiring of workers from the administered areas.

According to data from the National Insurance Institute, average earnings per building worker rose by only some 3 percent. The availability of labor unquestionably eased any upward pressure which might have arisen with the revival of activity and the growing demand for workers. Furthermore, the composition of the employment increment itself tended to depress the average wage per employee. Among those retained at the end of the slump were many skilled workers and veterans with seniority rights, whose wages are relatively high, while the average pay of the new workers is low, especially among the unskilled.

It is therefore possible that wages for each group of workers rose during 1968 (there is evidence that this did in fact happen). However, as long as the sector continues to take on additional workers receiving below-average wages, the overall rise in the average wage per employee will be small. In fact, the average wage may even decrease, as is suggested by data of the National Insurance Institute on hourly earnings.

At any rate, from the viewpoint of the employers operating in the sector, the important fact was that the expansion of activity and the rise in output prices were not accompanied by a similar rise in labor costs. Another factor helping to reduce unit labor costs was the elimination of hidden unemployment among permanent employees.

There were other developments liable to impart a downward bias to the data of the National Insurance Institute. The reference is to the changeover of some employees from daily to piece rates (daily earnings on the latter basis are much higher), but it is doubtful whether this trend was fully reflected by the reports of the National Insurance Institute. Labor costs were also pushed up by the increasing proportion of self-employed workers in the sector. These undoubtedly include some who continued to do the same work after changing their status from employees to self-employed and boosting their earnings thereby. This development too tended to decrease the wage bill (owing to the above-average skill level of the workers concerned, it also tended to depress average earnings per employee), while in actual fact both workers' incomes and employers' costs were on the rise.