

## CHAPTER XIII

# CONSTRUCTION AND HOUSING

### 1. MAIN DEVELOPMENTS

After declining for about two years, construction activity began to turn upward in 1967. Investment<sup>1</sup> in building and other construction<sup>2</sup> amounted to about IL 1,200 million—22 percent below the 1966 level. In the latter year, it will be recalled, there was a decline of 18 percent as compared with 1965—the record year in construction activity.

In the course of 1967 the sector displayed a change of trend, and incomplete data for the first quarter of 1968 attest to its continuation. The change was reflected differently by the various indicators:<sup>3</sup> in civilian construction starts, the downtrend which began in 1965 came to a halt, and after a decrease in the second quarter brought on by the war, the area of building begun increased in the second half of the year, and by the last quarter stood higher than the first-quarter level, although it was still less than in the last quarter of 1966.

The decline in the total value of new construction was also checked after the war, and by the last quarter of the year all the ground lost since the first quarter was regained. The volume of activity and level of output rose in the latter part of the year, and by year's end were higher than at the beginning. This can be attributed to a marked increase in defense construction and in maintenance and repair work (which are not included in the investment data).

Concurrently with the expansion of output, for which no quantitative estimate is available, there was an increase in factor utilization. In the last quarter of 1967 the number of gainfully employed construction workers was 12 percent

<sup>1</sup> The output of the construction sector includes, in addition to the investment estimates (value of construction put in place), defense construction and maintenance and repair work. Owing to the lack of figures on part of the latter activities, the quantitative data in this survey relate only to investment. In previous years investment accounted for about 90 percent of total output, but in 1967 its share increased. Since no estimates are available on the volume of noninvestment output—mainly defense construction—it can be discussed only in very general terms.

In calculating the investment figure for 1967, it has been assumed, in the absence of data, that the acceleration of construction activity in the second half of the year compensated for the decline in the second quarter due to the war. In other words, the war presumably did not affect the total annual investment in construction, but only its distribution over the year.

<sup>2</sup> Roads, ports, water and electric power lines, excavating, quarrying, etc.

<sup>3</sup> See Table XIII-4 and the accompanying note.

higher than in the first quarter. There was also a shortage of heavy mechanical equipment, whereas in the first quarter part of the equipment was idle. Local sales of cement were up nearly 30 percent, and sales of reinforcing bars by 34 percent.

The partial data available for the first quarter of 1968 strengthen the conclusion that the construction sector experienced a change of trend. Private construction starts continued upward (about 15 percent higher than in the fourth quarter of 1967), yet the total area of building started was unchanged, because of a decline in public construction. Sales of cement and reinforcing bars also continued to rise in the first quarter of 1968—by 3 and 12 percent respectively.

**Table XIII-1**  
**VALUE OF NEW CONSTRUCTION, BY TYPE, 1965-67**  
(IL million, at current prices<sup>a</sup>)

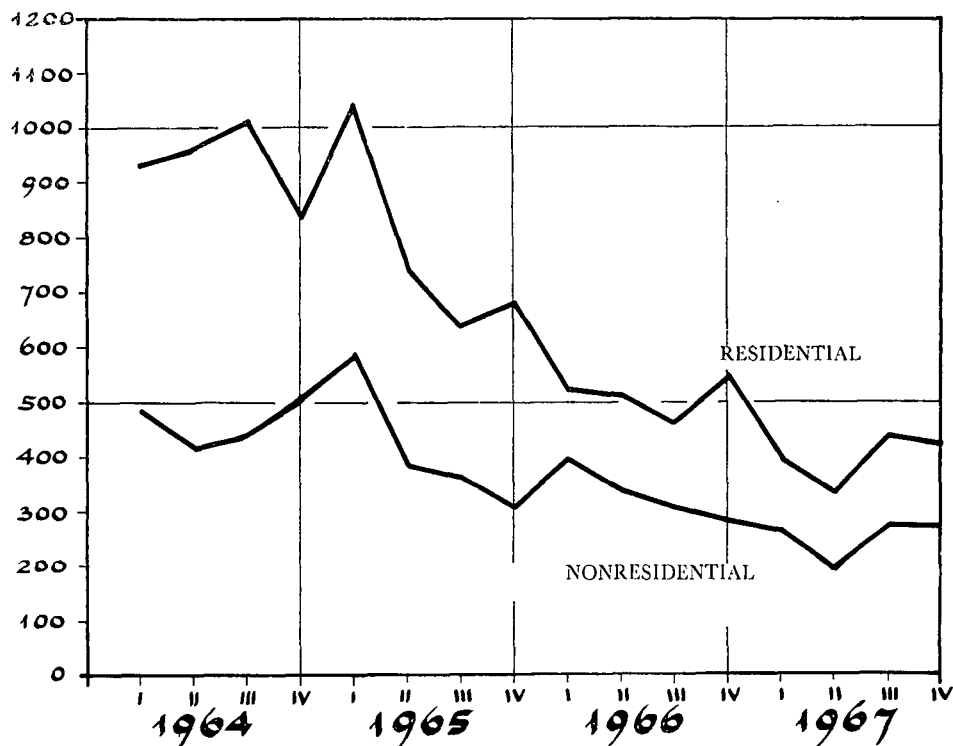
	1965	1966	1967	Percent increase or decrease (-)	
				1965 to 1966	1966 to 1967
<b>Residential</b>					
Private	621	518	376	-17	-27
Public	353	263	153	-25	-42
Total residential construction	974	781	529	-20	-32
<b>Nonresidential</b>					
Agriculture <sup>b</sup>	29	31	34	7	7
Irrigation	59	63	51	7	-19
Industry	122	71	40	-42	-44
Mining and quarrying	32	20	34	-38	70
Electric power	37	39	32	5	-18
Transportation and communications	206	160	173	-22	8
Thereof: roads	94	75	103	-20	37
Commercial premises, hotels, etc.	94	68	43	-28	-37
Public institutions and services	329	321	271	1	-16
Total nonresidential construction	908	773	678	-14	-12
Thereof:					
Buildings	548	474	375	-14	-21
Other construction work	360	299	303	-17	1
Grand total	1,882	1,554	1,207	-17	-22

<sup>a</sup> There were no changes in prices between 1965 and 1967, other than for transportation and communications, where there was an increase of 1 percent in 1966 and a decline of 1 percent in 1967 (see also the section on inputs).

<sup>b</sup> Excluding afforestation, drainage, reclamation, etc.

SOURCE: Central Bureau of Statistics.

**Diagram XIII-1**  
**AREA OF BUILDING CONSTRUCTION STARTED,<sup>a</sup> QUARTERLY, 1964-67**  
(thousand sq. meters)



SOURCE: Central Bureau of Statistics.

The drop in the value of new construction in 1967 and the reversal in mid-year of the falling trend in the level of activity occurred in both residential and nonresidential construction, but not to the same degree. The former declined more rapidly, and for the first time its share of the total volume fell below that of building for nonresidential purposes (even when defense construction, which theoretically should be added to nonresidential construction, is not included in the estimates).

At the beginning of 1967 some of the factors that had originally dampened construction activity in the middle of 1965 continued to operate. The most notable of these were the large stock of unsold buildings (finished or under construction)—a result of the large number of starts at the end of 1964 and the beginning of 1965;<sup>1</sup> a further decline in net immigration; and the general economic recession. All these depressed demand, while the stock of unsold buildings was directly responsible for the further curtailment of new construction.

<sup>1</sup> See the Bank of Israel Annual Report for 1966, p. 318.

**Table XIII-2**  
**VALUE OF NEW CONSTRUCTION, BY TYPE 1955-67**  
 (IL million, at 1965 prices)

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
<b>Residential</b>													
Private	276	245	235	259	301	320	377	437	508	571	621	518	376
Public	196	166	267	235	249	216	279	390	311	338	353	263	153
Total	472	411	502	494	550	536	656	827	819	909	974	781	529
<b>Nonresidential</b>													
Agriculture and irrigation	141	118	105	116	118	130	129	154	159	112	88	94	85
Industry	20	27	27	60	80	78	96	94	101	132	122	71	40
Mining and quarrying	24	14	12	6	13	13	16	36	52	50	32	20	34
Electric power	34	43	25	23	31	27	26	31	29	34	37	39	32
Transportation and communications	34	30	76	51	73	50	69	80	111	175	206	158	173
Commercial premises, hotels, etc.	21	23	27	26	30	46	64	56	62	72	94	68	43
Public institutions and services	99	99	132	150	170	172	181	197	247	288	329	321	271
Total	373	354	404	432	515	516	581	648	761	863	908	771	678
Grand total	845	765	906	926	1,065	1,052	1,237	1,475	1,580	1,772	1,882	1,552	1,207

SOURCE: Central Bureau of Statistics.

Construction activity fell to its lowest point in the second quarter of the year, when the disruptions during the period of national emergency and war were added to the other factors.

The trend began to turn in the second half of the year, after the war. Obviously, after a period of external disturbances, a renewal of activity is to be expected. And when the reference is to construction—which can readily be postponed—it is only natural that the increase will be even greater, since in part it compensates for the previous period. Further, the war augmented the requirements of the defense establishment, chiefly the laying and reconditioning of roads in the administered territories and the building and renovation of other installations, including the laying of water and oil pipelines. These jobs accounted for much of the total increase in construction activity in the second half of 1967.

Part of the increment must be credited to deliberate Government policy which was initiated in the middle of the previous year but came to fruition only in the second half of 1967. This reference is mainly to development work, such as the building and widening of roads, urban and neighborhood development, and earthwork in connection with large projects whose implementation was accelerated. In regular civilian construction as well, the second half of the year saw an improvement, reflected by an upswing in private residential and nonresidential building starts. While part of the increase must be regarded as compensating for the forced decline in the second quarter, other developments in the sector make it reasonable to assume that the more vigorous rate of activity in the second half of 1967 signalled the beginning of a new trend. The big increase in the liquidity of the economy in the early part of the year and again after the war, the military victory, the lifting of the cloud of uncertainty brought on by the recession, and expectations of a rise in incomes and prices which were accentuated by the devaluation in November, all these could have been expected to stimulate ordinary civilian demand for the sector's output, particularly housing. The upsurge in demand was expressed in a rise in home sales in the latter part of the year, with prices tending to firm or even move up slightly.

Developments on the supply side also contributed to the change in the level of activity: the area of construction starts for all purposes in the first quarter of 1967 was only about 40 percent of that in the peak period—two years before. This sharp fall over the past two years was not felt as long as completions did not decline, and this was held up until the end of 1966 because of the long gestation period. Moreover, the area of completions even rose in 1965, and in the following year reached a new high. The supply of vacant buildings therefore continued to grow, and this exerted a downward influence on new building starts even when completions finally began to shrink (in residential construction the decline began in the middle of 1966). However, when regular civilian demand began to revive after the war, it transpired that the volume of

Table XIII-3

## AREA OF CONSTRUCTION STARTED AND COMPLETED, BY TYPE, 1966-67

(thousand sq. meters)

	Construction started			Construction completed		
	1966	1967	Percent increase or decrease (-)	1966	1967	Percent increase or decrease (-)
<b>Residential</b>						
Private	1,489	963	-35	1,888	1,569	-17
Public	561	621	11	1,228	781	-36
Total	2,050	1,584	-23	3,116	2,350	-25
<b>Nonresidential</b>						
Agriculture and irrigation	176	171	-3	140	135	-4
Industry	283	198	-30	506	232	-54
Commercial premises, hotels, etc.	227	145	-36	270	177	-34
Public buildings	634	492	-22	801	492	-39
Total	1,320	1,006	-24	1,717	1,036	-40
Grand total	3,370	2,590	-23	4,833	3,386	-30
Thereof:						
Public building	1,105	1,091	-1	1,809	1,165	-36
Private building	2,265	1,499	-34	3,024	2,221	-27

SOURCE: Central Bureau of Statistics.

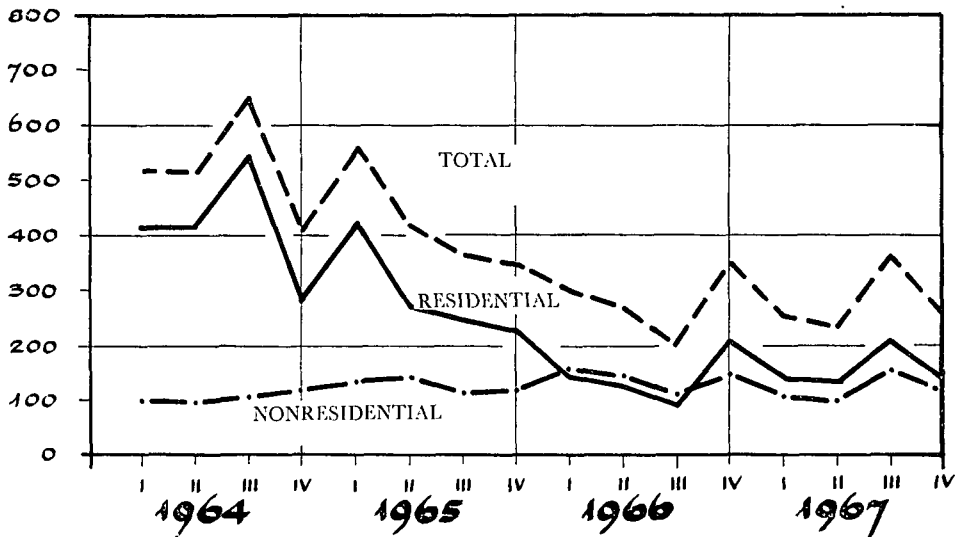
current completions, and even more so the volume of current starts, were exceedingly low, and when the stock of unsold buildings began to dwindle, the time had come for a renewed increase in construction starts. Owing to various factors specific to this industry, construction activity reacts belatedly to developments in the building market (for instance, considerable time is required for planning, licensing, and site clearance until the digging of the foundation, which statistically is considered the start of building). Nevertheless, by the last quarter of the year the area started of private residential construction, the most elastic type of building, was on the rise and more than compensated for the earlier forced decline. Fragmentary information for the beginning of 1968 strengthens the conclusion that a turning point was reached in both residential and non-residential construction. Following the emergence from the slump, a strong demand is likely to develop for industrial premises and hotels, despite the existence of a fairly large stock of unsold buildings for these purposes.

The decline in the value of new construction embraced most component types. It was steepest in public residential building, about half of which was for immigrants. The decrease in nonresidential building was more moderate but still fairly substantial. Some of the underlying factors were the same for both

Diagram XIII-2

## AREA OF PUBLIC BUILDING CONSTRUCTION STARTED,\* QUARTERLY, 1964-67

(thousand sq. meters)



SOURCE: Central Bureau of Statistics.

categories. The reduction of immigration, for instance, resulted in a smaller infrastructural investment in various public institutions and installations. But the decline in the value of new construction for nonresidential purposes, particularly industrial and commercial premises and hotels, can doubtless be attributed primarily to the economic recession. Added to this—as in the case of residential construction—was the dampening effect of the large stock of completed or partly completed buildings in the hands of builders. The stock of industrial and commercial buildings was greater, relative to the volume of current demand, than that of residential buildings. Since the stock began to accumulate as far back as 1964 and 1965, the value of new industrial and commercial construction put in place presumably exceeded demand even before the onset of the recession.

The recession led to a reorganization of building and contracting firms. The difficulties of Rassco Ltd. came to the public's notice, but other large public companies also required Government aid in the form of credits and the purchase by the latter of some of their excess supply. Smaller contractors and builders failed or curtailed their operations. In general, private builders more successfully adjusted to the recession than the large public companies, whose share in construction starts declined during the slump period. Moreover, construction firms established when the real estate market was flourishing and which were affiliated to financial institutions found it difficult to keep afloat,

partly because the recession caught them with a comparatively large supply of building plots bought at peak prices. The financial institutions apparently preferred to unload as much of their real estate and building investments as possible.

The number of new construction firms listed with the Registrar of Companies began to shrink as far back as 1964, whereas in other sectors the number of new firms continued to rise that year, turning downward only in 1965. Between 1963 and 1966 the annual number of newly registered construction concerns declined from 298 to 156. Even more striking was the decrease in the aggregate equity capital of the registered companies during this period—from IL 63.8 million to IL 5.1 million. The number of companies liquidated (as distinguished from those struck off the register) rose from 40 in 1965 to 84 in 1966.

With the exception of the jobs carried out for the defense establishment, the administered areas have had little impact on the level of construction activity. The reason lies in the almost total paralysis of regular construction work, in the main because of the uncertain political situation, but also because of a worsening of credit terms, difficulties in the transfer of money from relatives in other countries, and an increased supply of dwellings following the emigration of some of the inhabitants to Jordan.

Construction activity in these areas has thus been limited to the repair of war damage, financed in part by the Israel Government, but the extent of such work is negligible compared with the volume of activity in Israel. The employment of numerous jobless in public works, such as the repair of roads in these areas, likewise has not had a noticeable effect on Israel's construction sector.

Nevertheless, two developments deserve mention. The first is the absorption of skilled and unskilled Arab building workers by Jerusalem's construction industry. They come from East Jerusalem and its environs, including Ramallah and Bethlehem, and they receive lower wages than do Israeli building workers. The second development is the return of the Jerusalem stone industry to its traditional source of supply in the vicinity of Hebron and Ramallah. The stone there is of better quality and cheaper than the Galilee stone which has served Jerusalem since the establishment of the State. The price differential stems from both the lower wages paid and from shorter haulage distances. As a result, the quarries around Nazareth and in Western Galilee have suffered.

## 2. VOLUME OF CONSTRUCTION

The value of new construction in 1967 amounted, as already mentioned, to about IL 1,200 million.<sup>1</sup> This is about 22 percent below the previous year's

<sup>1</sup> This does not represent the market price of the buildings and installations, but only the cost of construction, excluding *inter alia* the value of the land. The data cited here are in current prices. This is the second straight year in which construction costs have presumably remained unchanged. The price index of residential construction inputs in fact shows no



figure and 35 percent below that of 1965, when construction was booming. A similar level is found only in 1961, since which time the productive capacity of the sector has nearly doubled.

The reversal of trend in 1967 may be seen in Table XIII-4, where the main indicators of construction activity are given for three periods: the first quarter of 1965 (when a new high was reached), the first quarter of 1967, and the last quarter of 1967. The first quarter of 1967 was chosen to represent the low point in building activity. Actually, the second quarter was even worse, but because the war artificially reduced construction operations, the first quarter was preferred as a point of comparison both with the peak period and with the recovery that set in in the second half of 1967.

Examination of the table shows that the rise in the area of starts occurred in private construction for housing and other purposes, whereas public construction starts fell off in the last quarter of the year. The moderate increase in the total area of civilian construction started did not prevent a further reduction of the stock of buildings under construction, and this because the volume of completions was still higher than that of starts throughout 1967.<sup>1</sup> The cessation of the decline in the total value of new construction put in place while the stock of buildings in process continued to diminish is explained both by the speeding up of work on buildings under construction and by the expansion of nonbuilding construction, particularly the paving and widening of roads in the second half of 1967.

Much of the rise in employment and sales of cement and reinforcing bars should therefore be attributed to the growth in the second half of the year of that part of the sector's output which is not included in the investment data—construction work for the defense establishment, the repair of war damage in Israel, and the renovation, improvement, and enlargement of existing dwellings in a campaign sponsored by the Ministry of Housing. The volume of completions has been falling since 1966, and the employment situation of those workers engaged in the final stages of building was undoubtedly eased both by the above-mentioned Ministry of Housing campaign—announced at the end of 1966 but actually launched after the war—and by the repair of war damage. Construction for the defense establishment involves considerable earth and concrete work,

change compared with the annual average for 1966, and the price index of road construction inputs edged down 1 percent. Other information testifies to a decline in building costs during 1966 and until the third quarter of 1967, when they began to rise. Owing to the conflicting information, we prefer the assumption of no change. See the note on this point in the Bank of Israel Annual Report for 1966, p. 334.

<sup>1</sup> The volume of completions displayed a generally declining trend. After the war the figure turned upward, but this rise was temporary, as is borne out by the resumption of the decline in the first quarter of 1968. The brief rise in completions in the second half of 1967 is explained by the fact that the volume of completions depends on the level of starts in the preceding period, and work was apparently expedited on buildings nearing completion in response to the stronger demand that manifested itself at the time.

and this soon resulted in a shortage of skilled scaffolding erectors and ironbenders, who were the first to be dismissed as far back as 1965, and in a shortage of heavy mechanical equipment and transport vehicles. At the beginning of 1967 this type of equipment had been shipped out of the country by Israeli firms which had taken on construction jobs abroad and had given up hope of again making use of this expensive equipment in Israel. In addition to the construction work for the defense establishment, plans for the paving of new roads and the widening of existing ones were carried out after the war. Although these plans had been drawn up in the previous year with the aim *inter alia* of utilizing the idle mechanical equipment, their implementation got into full swing only after the war. At the end of 1967 and the beginning of 1968 further demand was generated for earthwork on a large scale in such major projects as the Reading "D" power station, the chemical complex at Arad, and a new oil pipeline.<sup>1</sup>

The war, as stated, was a major determinant of the level and development of construction activity in 1967. The incremental demand for output generated by the war has already been noted. At the same time, the war had a contractionary effect on ordinary economic activity, which apparently was more pronounced in construction than in other sectors. Like the rest of the economy, construction was hit by the call-up of workers. But building was held up not so much by this as by the shortage of trucks, arising from the mobilization of vehicles from the beginning of the period of tension until early August.

It is therefore difficult to determine how the war affected construction activity over the year as a whole. The problem arises not only from the nonpublication of data on defense construction, but also from the difficulty of measuring the effect of the war on the value of new construction for civilian purposes.<sup>2</sup>

As regards the monthly pattern of development, it has been noted that the war depressed activity in the period May to June, and subsequently led to an increase which also compensated for the earlier decline. Were it not for the direct and indirect influence of the war, the first quarter of 1967 might have seen construction activity drop to its nadir and then begin a slow recovery. The change which occurred in the building market during the year apparently

<sup>1</sup> The rental charges for earthmoving equipment and haulage rates, which were reduced appreciably during the slump, rose rapidly after the war (it might be added that neither the decline nor the rise was reflected in the price tariffs of large transport firms, and hence was likewise not fully reflected in the index of input prices, which is partly based on these tariffs).

<sup>2</sup> The value of new private residential construction and of nonresidential building construction is calculated indirectly from data on building starts and completions, with the investment in a building arbitrarily being assumed to be evenly distributed over time between the start and the completion of work. Obviously, the tempo of work slowed down between May and July. But since no data are available for adjusting the measurement, we have assumed that the acceleration of work in the second half of the year compensated for the decline during the period of tension and war, and that the figure for the year as a whole was not affected by the war.

**Table XIII-4**  
**INDICATORS OF CONSTRUCTION ACTIVITY, 1965-67<sup>a</sup>**

	First quarter 1965	First quarter 1967	Last quarter 1967	Increase or decrease (-)			
				From I 1965 to I 1967		From I 1967 to IV 1967	
				Absolute	Percent	Absolute	Percent
Value of new construction (IL million)							
Total <sup>b</sup>	512	341	343	-171	-33	2	—
Residential	261	143	143	-118	-45	—	—
Nonresidential <sup>b</sup>	251	198	200	-53	-21	2	1
Building starts (thousand m <sup>2</sup> )							
Total	1,623	658	695	-965	-59	37	6
Private residential	610	252	288	-358	-59	36	14
Public residential	424	142	135	-282	-66	-7	-5
Nonresidential	589	264	272	-325	-55	8	3
Building completions—total (thousand m <sup>2</sup> )							
	1,211	906	873	-305	-25	-33	-4
Buildings under construction (thousand m <sup>2</sup> ; end of quarter)							
	7,570	5,070	4,522	-2,500	-33	-548	-11
Number of workers	96,600	60,000	67,200	-36,600	-38	7,200	12
Consumption of cement (’000 tons)							
	243	151	195	-90	-37	44	29
Consumption of reinforcing bars (tons)							
	22.8	15	20.1	-7.8	-34	5.1	34

NOTE: A key factor in analyzing the development of construction activity, which is referred to repeatedly in this chapter, is the long gestation period—about a year and a half—which characterizes the industry. This results in a lagged pattern in the force and direction of the various indicators of construction activity. Data on starts generally indicate the trend of development. The value of new construction constitutes an approximation of output and factor utilization (in 1967 there was a rise in the share of output that is excluded from the estimated value of construction put in place—defense construction, maintenance and repair work, and the renovation of buildings—mainly in the second half of the year). The inventory of buildings under construction serves as an approximation of the value of new construction. Differences between the change in inventory and the change in the value of new construction arise from changes in the rate of construction activity and from non-building construction activity, such as earthwork, roads, ports, electric power lines, sewerage, etc.

<sup>a</sup> Provisional data; it has been assumed that the acceleration of activity in the second half of 1967 in part compensated for the decline in the second quarter of 1967 due to the war.

<sup>b</sup> Excluding defense construction, maintenance and repair work, and the renovation of buildings, including land amelioration, drainage, and afforestation, which are excluded from the corresponding data in other tables in this chapter.

SOURCE: Central Bureau of Statistics (data on sales of cement and reinforcing bars are from the factories).

affected the rate of activity as well. As long as the market remained in the doldrums, construction too was listless. In the last quarter, however, the pace seems to have quickened, judging from the rise in completions in that quarter, which temporarily arrested the steadily falling trend, dictated by the curtailment of starts which began over a year earlier.

Analysis of the value of new construction in 1967 shows that the decline occurred in most component types, although at different rates. There was a particularly sharp fall in residential construction, including that initiated by the public sector, which was off 42 percent.<sup>1</sup>

The value of nonresidential construction was only 12 percent lower in 1967, with the sharpest drops being in industrial and commercial premises, offices, and hotels and other guest accommodation. There was a more moderate decline in public institutions and installations. On the other hand, the figure for the mining and quarrying sector and for transportation and communications (particularly roadbuilding) showed a renewed rise. The growth in the latter sector can apparently be attributed to deliberate Government policy.

As a result of the steeper cutback in residential than in nonresidential building, the value of new nonresidential construction for the first time exceeded that of residential construction. This development also had implications from the production aspect, since in construction for the productive and service sectors "other construction work"<sup>2</sup> constitutes a far greater component. Moreover, the change was caused by a rise in types of construction in which "other construction work" is the main component. This change, together with the additional demand of the defense establishment, explains most of the shortage of scaffolding erectors, ironbenders, and heavy mechanical equipment. The shortage was aggravated by the rise in ordinary construction starts, since in the early stages of work those factors of production are employed which were in short supply, whereas the volume of completions is on the decline and it is doubtful whether the campaign to repair and renovate buildings is sufficient to offset it.

Because of the mounting number of unemployed building workers, the Government undertook to stimulate activity in the middle of 1966. Plans for the construction of Government office buildings were expedited, a special budget was allocated for development work in the local authorities, the renovation campaign was decided on, and the highway development program was again enlarged. However, the first tangible results of these activities were felt only after a lag of several months.

Diagram XIII-2, which describes the area of public construction started (buildings alone, and not such work as road paving), shows a rise in starts in the last quarter of 1966. Most of the increase was in residential construction.

<sup>1</sup> On the other hand, the total area of public residential construction started rose, whereas that of private residential construction declined. See note to Table XIII-4 regarding the different indicators.

<sup>2</sup> Excavation, quarrying, roadbuilding, special concrete structures, etc.

The first quarter of 1967 saw a renewal of the downward movement (the further decline in the second quarter can be attributed to the war). This development reflected the Government's intention of encouraging building activity on the one hand, and difficulties experienced in realizing it (except for projects actually ready for implementation) on the other. Another reason for the insignificant rise in public construction starts over the year as a whole and for the renewed decline in the last quarter of 1967 (which was accentuated in the first quarter of 1968) was the existence of a stock of dwellings and other buildings put up by the public sector itself and purchased from private builders. This stock deters additional construction, while its maintenance absorbs funds intended for new construction.

The continuation of the slump was accompanied by a steady drop in starts. This in turn depressed output to below the level of current demand, which also had shrunk in the meantime. The difficulties of adaptation characteristic of this industry result in every attempt in this direction being made too late, and then too intensively. The excess supply in the hands of builders was more than sufficient for the short-run demand. The financing difficulties arising from the maintenance of this inventory induced builders—including large public companies—to further curtail new construction. This reduction may prove to be too drastic, both because it is liable to result in a new shortage of supply (if only temporarily), since the long gestation period makes it impossible to meet a growth of demand quickly, and because of its adverse effect on the productive capacity of the sector, including building workers with no alternative employment. Such a curtailment is liable to create bottlenecks when activity again picks up, as actually happened at the end of 1967 with respect to some of the aforementioned factors of production.

### 3. RESIDENTIAL CONSTRUCTION

At the beginning of 1967 housing construction fell to an all-time low. Even after two years of steady decline in new construction activity, the sector was still saddled with an unsold stock of finished and partly finished dwellings, which had begun to accumulate at the end of 1964. The number of dwellings started dropped from 48,000 in 1964 to 38,000 in 1965, 22,000 in 1966, and only 18,000 in 1967. The long gestation period is responsible for the fact that the number of dwellings completed continued to rise in 1965 and most of 1966 (see Table XIII-5). The decrease in the total value of new residential construction between 1964 and 1967 was therefore more moderate—45 percent as against a decline of 62.5 percent in the number of units started and of 58 percent in the area of residential construction started.<sup>1</sup> The decline in the

<sup>1</sup> The comparison is for the following years: value of new construction started—1967 as against 1965; area and number of units—1967 as against 1964.

# RESIDENTIAL CONSTRUCTION, 1960-67

	1960	1961	1962	1963	1964	1965	1966	1967 <sup>a</sup>
<b>Number of units started</b>								
<b>For the regular market</b>								
Private	14,960	15,260	17,620	19,530	21,080	18,900	13,860	9,190
Public <sup>b</sup>	4,310	6,710	5,560	6,330	9,460	6,380	3,750	4,130
Total	19,270	21,970	23,180	25,860	30,540	25,280	17,610	13,320
<b>For new immigrants etc.<sup>c</sup></b>								
Immigrant housing	3,530	13,140	17,370	10,430	15,500	9,270	2,720	1,570
Other housing	4,120	6,470	5,160	2,130	2,340	3,330	2,120	3,320
Total	7,650	19,610	22,530	12,560	17,840	12,600	4,840	4,890
Grand total								
Number of units	26,920	41,580	45,710	38,420	48,380	37,880	22,450	18,210
Area <sup>d</sup> (thousand m <sup>2</sup> )	2,077	2,954	3,288	3,160	3,752	3,089	2,050	1,584
<b>Number of units completed</b>								
<b>For the regular market<sup>b</sup></b>								
Private	13,330	13,070	14,430	15,560	18,800	18,520	18,520	15,130
Public	6,010	3,850	6,120	5,100	6,300	6,630	8,240	4,960
Total	19,340	16,920	20,550	20,660	25,100	25,150	26,760	20,090
<b>For new immigrants etc.<sup>c</sup></b>								
Immigrant housing	6,320	1,680	11,560	16,530	10,720	11,150	8,160	4,530
Other housing	5,330	7,760	6,170	2,500	2,160	2,120	2,660	3,060
Total	11,650	9,440	17,730	19,030	12,880	13,270	10,820	7,610
Grand total								
Number of units	30,990	26,360	38,280	39,690	37,980	38,420	37,580	27,700
Area <sup>d</sup> (thousand m <sup>2</sup> )	2,195	2,029	2,739	2,915	2,964	3,125	3,116	2,350

NOTE: In view of the purchases from private builders in order to house immigrants and the reallocation of various types of public construction for different purposes, the breakdown by destination must be accepted with caution; nevertheless, the distribution presented here is still significant with respect to the standard of construction.

<sup>a</sup> Preliminary data for 1967

<sup>b</sup> Popular Housing, Saving-for-Housing, for veteran residents in development areas, for young couples, and in Arab communities.

<sup>c</sup> For new immigrants, housing in agricultural settlements, liquidation of transit camps, and slum-clearance projects.

<sup>d</sup> Including the enlargement of existing buildings.

SOURCE: Based on Central Bureau of Statistics data.

value of new construction was greater in the case of residential than of other types of building, and this reduced the share of the former in the total value of new construction from 58 percent in 1964 to 44 percent in 1967.

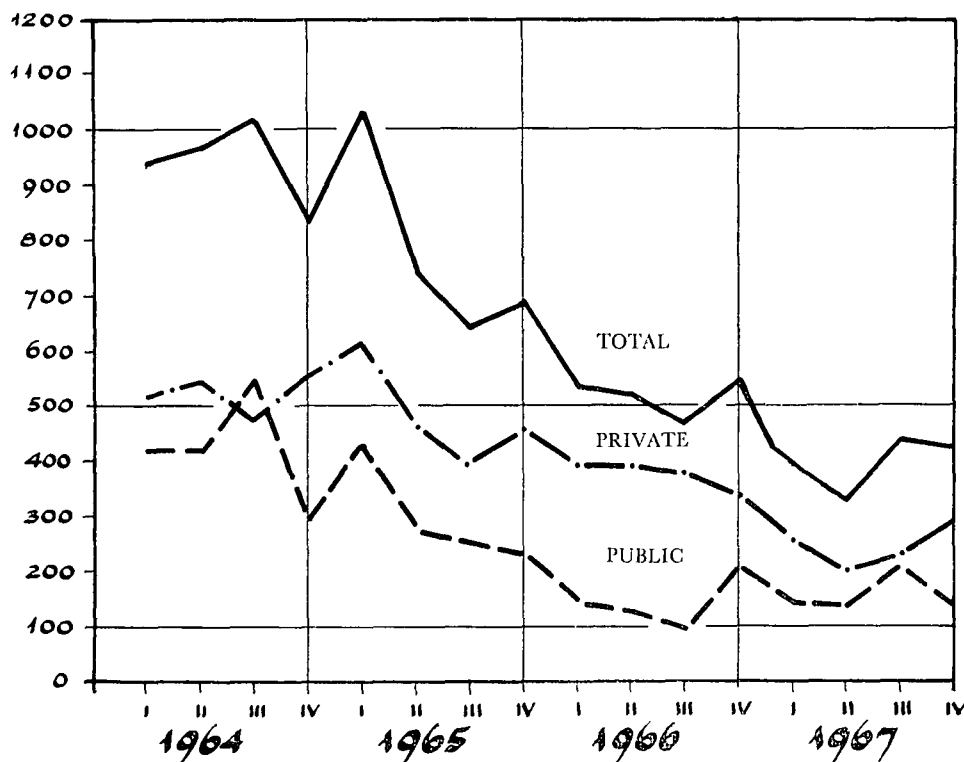
Housing starts were curtailed in both the public and private sectors. In public construction the drop was greater and more rapid, mainly because of the sharp fall in immigration, and it was concentrated in the years 1965 and 1966, whereas in 1967 there was a renewed increase in the number of starts—from 8,590 to 9,020. In private construction, the figure continued to drift steadily downward until the middle of 1967 (see Table XIII-5 and Diagram XIII-3).

In view of the large stock of surplus dwellings accumulated, an outcome of the overbuilding in 1964 and the beginning of 1965, the cutback in residential construction starts as from the middle of 1965 was expected, even if demand had held steady. But as far back as the beginning of 1964, various factors operated to moderate demand, and in 1965 it began to fall precipitately as a

Diagram XIII-3

AREA OF RESIDENTIAL CONSTRUCTION STARTED,<sup>a</sup> QUARTERLY, 1964-67

(thousand sq. meters)



SOURCE: Central Bureau of Statistics.

result of the contraction of immigration. Excess supply coupled with sagging demand has marked the housing market for the past three years, increasingly depressing the volume of new construction.

(a) *Construction for the regular market*

This consists of construction by private builders and the more "economic" building initiated by the public sector—Saving-for-Housing, Popular Housing, housing for young couples, and that for veteran residents in development areas.

Table XIII-5 shows the development of the supply of dwellings for the regular market since 1960. Following a rise in demand in the early sixties, there was a gradual increase in building starts. The comparatively long period of time required to put up new buildings resulted in the supply of completed units lagging for some time far behind current demand. The continued shortage of completed buildings in the initial stages eventually resulted in an excessive volume of starts. In 1964 the market had difficulty in absorbing the substantially larger increment of completed dwellings, but owing to special circumstances<sup>1</sup> the volume of new construction continued to grow at an accelerated rate until the beginning of 1965. The result was the accumulation of a large inventory of unsold units, which in August 1967 (the only date on which the unsold stock was ever measured) totalled about 8,500 finished dwellings and some 7,200 in an advanced stage of work. The reaction of the builders to the excess supply can be seen in the sharp drop in construction starts as from the second quarter of 1965 (see Diagram XIII-3). But despite the steady decline in new construction, the volume of completions tapered off at the peak level of 1964 (or even exceeded it) in 1965 and the first half of 1966, reflecting, after a lag of about a year and a half, the record volume of starts in 1964 and the beginning of 1965. The volume of current completions, the unsold stock in the hands of builders, and the weakening of dwelling prices combined to keep down new construction starts. As a result, the number of units begun in 1967 for the regular market totalled approximately 13,000, or only some 40 percent of the 1964 level.

The development of the various components of demand for regular housing cannot be quantified. One of the principal determinants of housing demand is the growth of the local population.<sup>2</sup> Another is an increase in real incomes and net worth, which engenders a demand for better housing and, together with other economic variables, stimulates the demolition of small buildings, the conversion of dwellings for commercial uses, and advance and speculative

<sup>1</sup> See the chapter on "Construction and Housing" in the Bank of Israel Annual Reports for 1964-66.

<sup>2</sup> As distinguished from immigrant families, who generally lack the wherewithal to look for homes in the regular market, whether on a rental or purchase basis (see the discussion on subsidized residential construction).



purchases of homes when conditions are suitable therefor. Whereas the demand that can be attributed to the growth of the local population was fairly stable, with a mildly rising trend in the years 1961–67, the other determinants underwent marked changes during this period.

In previous Bank of Israel Annual Reports the surging demand for homes in the regular market was treated at length. The rapid growth of real incomes, the rise in lump-sum personal restitution payments from Germany, the devaluation of 1962, which augmented the value of linked assets and increased the relative profitability of investment in real estate as compared with financial assets linked to foreign currency (which had been preferred until then), all these created a strong demand for dwellings. Added to this was a speculative demand on the part of local and foreign investors touched off by the soaring of prices, which engendered expectations that it would continue.

The picture began to change in 1964, after fiscal legislation made the current maintenance of property more expensive and reduced the possibilities of capitalizing on rapid price rises. The steep increase in the supply of completed dwelling units which occurred at the same time also eliminated the incentive for purely speculative purchases and even for advance purchases by potential occupants.<sup>1</sup> Moreover, the belief that prices would retreat in the wake of the increased supply induced many to defer purchases. Thus the process of breaking up larger household units apparently slowed down, and there may even have been an opposite development. The excess supply and real estate slump discouraged the demolishing of small buildings in order to make the land available for new construction. Land values tumbled, while the value of existing buildings remained relatively stable. A gradual reduction in the volume of lump-sum restitution payments from Germany also contributed to the decline in demand. From the latter part of 1965, the recession was added to the aforementioned factors depressing the demand for higher standard housing, as it bred uncertainty as to future incomes.

With the deepening of the recession, there was a growing reluctance to buy homes, since this involved the assumption of a large value-linked loan burden. As long as housing prices were advancing more rapidly than the general price level, purchasers ignored the high price of such loans; but when dwelling prices began to slip in 1965, while the general price level continued to edge upward, the loan-linkage clause caused increasing numbers to postpone purchases—a development accentuated by proposals calling for the cancellation of linkage (this was approved in the middle of 1967).

Until the middle of 1967, the commercial housing market was marked by

<sup>1</sup> This was apparently one of the major reasons for the decline in foreign investments. There was a strong flow of investment capital from abroad as long as the boom in real estate (and stocks) continued, and it dried up with the slump in this market. In 1967 investment in property was only a third of that in 1964.

mounting supply and sagging demand. The result, as might have been expected, was a reduction of prices and, even more so, the granting of better purchasing terms such as smaller down payments, the provision of nonlinked medium-term loans by the builder, arrangements for rental with an option to buy in the future at a fixed price, with the rent being applied toward the price, etc.

However, the price cuts and more attractive purchasing terms failed to bridge the ever-widening gap between supply and demand, and a large stock of unsold units accumulated, apparently reaching a peak at the beginning of 1967, as already noted. In a nonrecurrent survey of this stock carried out on August 1, 1967, it was found that in the regular market there were about 8,500 completed units and about 7,200 in an advanced stage of construction.

Direct data are not available on the sale of new dwellings in this market, but the size of the unsold stock in 1967 (after the Government had already purchased for immigrants and other subsidized groups several thousand units originally intended for sale in the regular market) suggests that sales fell off during the recession.

The subsiding of demand for housing was reflected not only by the smaller number of homes sold. There was also a decline in the average price paid,<sup>1</sup> which to some extent was due to a change in the standard and location of the new housing, and in part reflected a decline in the price of similar units. Land values retreated more rapidly than the prices of the completed dwellings, since the possibilities of trimming construction costs other than land were relatively small. For this reason, even the decline in the total value of new private residential construction (close to 30 percent in 1967 as compared with 1963) does not accurately reflect the extent to which demand shrank, since the price of land is not included in the calculation.

The change in the quality and siting of the new homes can be attributed to the smaller demand for better housing on the one hand, and the relatively stable demand on the part of new households on the other. The reduced demand for better homes also resulted in a smaller number of existing units being put on the market, so that the percentage of new units in total sales to newly established households increased. Another contributory factor was the large supply of new units offered at favorable prices and easy loan and payment terms.

The Government, which controls the mortgage market, makes easy credit available to those buying new dwellings, preferably in housing estates sponsored by the public sector. Since the balance left for financing the purchase of privately built homes is limited, it can be understood why the mortgage banks prefer to

<sup>1</sup> See also the discussion of housing prices in Chapter VI, "Prices". Regarding the data cited there on the price decline during the recession, it should be noted that the measurement by the Central Bureau of Statistics relates only to changes in the price of "identical" units. Consequently, it does not reflect that part of the decline in the average per unit price between the boom and slump periods which stemmed from a change in the composition of the units acquired.

finance new dwellings, particularly as the builder generally participates in some form or other in the mortgage loan.

During 1967 changing conditions prepared the ground for a turn of trend in construction for the regular housing market. On the demand side, it seems that around mid-year a number of factors which until then had depressed demand apparently began to weaken. The economic slowdown gave way to recovery and real income went up. The confident mood that accompanied the military victory and the upswing in real estate prices apparently induced a changed outlook concerning price trends. It is plausible to assume that such a change ended the postponement of purchases and encouraged their advancement. The first steps were taken to abolish the linkage of mortgage loans, and various forms of tax relief were proposed for property investment. Finally, the devaluation in November apparently did not have the same repercussions as that of 1962, which was a major factor in triggering off the building boom of 1962-64.

The relatively low rate of the devaluation, and the fact that it was unexpected—unlike that of 1962, which the public anticipated by accumulating financial assets denominated in foreign currency or linked to the exchange rate—tend to weaken any possible upward effect on demand for housing. In the first week after the devaluation the real estate market rallied somewhat, but this was short-lived. Another factor which must be taken into account is the larger number of immigrants coming from affluent countries since the war. A relatively large percentage of them look for homes in the commercial market. The list of factors likely to increase demand is quite long, but it is difficult to quantify each of them.

There were significant developments on the supply side as well. In 1967 the curtailment of new construction for the regular market, which began in early 1965, made itself felt for the first time in the housing market. In mid-1966 the area of completions began to decline, and in 1967 it apparently did not exceed current demand. Various quarters report a rise in sales in the second half of 1967, which even reduced the inventory of unsold new units.

#### AREA OF RESIDENTIAL CONSTRUCTION COMPLETED FOR THE REGULAR MARKET, HALF-YEARLY, 1965-67

(thousand sq. meters)

1965		1966		1967	
I	II	I	II	I	II
1,050	1,090	1,210	1,100	885	870

In the last quarter of 1967 the area of private residential construction completed rose. This accords with other information on the growth of sales, but is contrary to what was expected in view of the decline in construction starts in

the two preceding years. The unanticipated increase is attributable to the acceleration of work on buildings in process in response to mounting demand. The downtrend in dwelling prices is also reported to have come to an end, and the various inducements offered during the slump have been discontinued. The Central Bureau of Statistics index of dwelling prices likewise records a rise in the second half of the year.<sup>1</sup>

Diagram XIII-3 shows that in the second half of 1967 there was an increase in new private residential construction, which is consistent with the estimated growth of demand. While this increase, as already mentioned, compensated for the further drop in starts in the second quarter because of the war, the fact that the upward movement carried over through the first quarter of 1968 justifies the view that this signals an end to the protracted declining trend in new residential construction for the regular market. Also, the upsurge in private residential completions in the last quarter of the year, though temporary, presumably reflects the response of builders to the revival of demand.

In any case, it is obvious that the 1967 volume of such construction cannot continue for long. The fact that only 13,000 units were put up for the regular market can be ascribed to the unsold stock of dwellings either totally or partly completed; this figure is lower than current demand for new homes, which itself contracted during the slump and can be expected to increase.

#### (b) *Public residential construction*

The public sector<sup>2</sup> operates in both markets, the regular commercial market, where its activities were earlier discussed together with private construction in analyzing the development of supply and demand therein, and construction which can be defined as "subsidized", being intended for new immigrants, evacuees of ma'barot (transition camps) and slums, and for agricultural settlements.

We now resume the discussion of public construction for the regular market, because of the close connection between it and "subsidized" construction, and because from the supply aspect it cannot be judged by the same criteria that are applied to private builders. In its economic activities the Government is motivated by various considerations, which sometimes conflict with those that guide the private entrepreneur, and also because in comparison with the private sector, public construction enjoys more favorable terms, particularly as regards financing.<sup>3</sup> As can be seen from Table XIII-4, public sector construction for the

<sup>1</sup> See the section on housing prices in Chapter VI, "Prices".

<sup>2</sup> The reference is to construction initiated by the Government, National Institutions, local authorities, and companies controlled by these bodies. "Initiation" is defined as the planning (determination of the site, standard, and floor area) and supervision of construction.

<sup>3</sup> In this connection it should be noted that public housing construction is actually executed by private contractors, since the initiating bodies do not have any building workers or equipment of their own. At most they maintain stores of building materials, a hangover from the days of austerity.

regular market developed similarly to that of the private sector in both the boom and slump periods. New construction was dictated by sales prospects. At the height of the boom, the number of units started rose from 6,300 in 1963 to about 9,500 in 1964, and this despite the heavy pressure on labor and other building inputs, which led to the imposition of building curbs at the beginning of 1965. When the slump came, the volume of new construction was curtailed, as in the private sector. The cutback was even sharper, not least because of the big increase in the last boom year. The number of new units begun for the regular market declined from 9,500 in 1964 to 6,400 in 1965 and 3,750 in 1966, and rose slightly in 1967 to 4,130.

The public sector too suffered from financing difficulties in construction for the regular market. These were connected with the stock of unsold buildings completed or nearing completion, which by mid-1967 numbered almost 8,300. The difficulties arose from the fact that in construction for the regular market the proportion of budgetary funds is small and the maintenance of an inventory of unsold units requires a large amount of interim financing. A partial solution to this problem was found by using the funds allocated for immigrant and other subsidized housing, in which the share of budgetary financing is large, for "purchasing" the surplus dwellings. These purchases by the Ministry of Housing also included homes put up by private builders, but in the absence of data it can be assumed that preference was given to public construction. After the war it was decided to expand such purchases in order to cater to immigrants from the affluent countries. This decision facilitated the further purchase of relatively spacious and expensive dwellings in urban areas, a substantial percentage of which could not find buyers in the open market. Another method of stimulating the sale of public sector housing was the "trade-in" offer, whereby the buyer's old home was acquired and used for immigrant or other subsidized housing. In addition, the size of the individual loan was increased, while the total number of loans was reduced.

Like private builders (although after a certain time-lag), the public sector took steps to boost sales, such as the provision of larger bank loans, the abolition of mortgage-loan linkage, and the launching of a special sales campaign featuring discounts for cash payment, lotteries, etc. But the inflexibility displayed in setting prices and terms of payment, the siting (sometimes adjacent to housing estates for slum evacuees, for instance), and the unusually large area of completions in 1966 (the result of excessive starts in 1964), resulted in the accumulation of a supply of unsold dwellings, which, relative to the level of current completions, was much higher in public than in private construction.

In contrast to the situation in building for the regular market, in subsidized construction the demographic factor (i.e. immigration) was responsible for the steep decline in the area of building started and in the value of construction put in place. Immigrant housing starts dropped to 10 percent of its former level—from 15,500 units in 1964 to 1,570 in 1967.

In subsidized construction, economic variables were a less weighty factor in the ebbing of demand. The recession resulted in a growing reluctance on the part of the public to absorb the incremental supply of dwellings, even though purchase and rental terms were very favorable from the start and were made even more attractive during the slump. The number of subsidized dwellings available for nonimmigrant tenants grew both as a result of the reallocation of some 5,000 vacant units, originally put up in the development areas for immigrants, for bettering housing conditions of veteran residents and young couples, and as a result of the larger volume of new construction for slum evacuees and in agricultural settlements.

As regards subsidized housing, several different stages can be discerned in the response of the Ministry of Housing to the forced decline in construction for new immigrants and for the regular market. In 1965 subsidized nonimmigrant residential building was stepped up, but in the following year it was curtailed under the economic slowdown policy. In the middle of 1966, when it became clear that the building slump was getting out of hand and that there was no chance of absorbing all unemployed building workers in other industries as had been planned (at least not within a year or two), it was decided to expand construction. This presumably explains the rise in subsidized construction starts in 1967. The building program launched in the middle of 1966 called for the expansion of public housing, which was to be financed by fully utilizing the current budgets and by drawing on building budgets for the coming years. Nevertheless, the volume of starts was lower than projected. Whereas the budgets for 1966/67 and 1967/68 provided for the erection of approximately 30,000 dwelling units, after the aforementioned purchases and reallocation of units, work was begun on only some 17,000 units.

The improvement of housing conditions for low-income groups has encountered various constraints. The transition camps have been almost completely liquidated, and most of the possibilities have been exhausted of rehousing slum dwellers on a purchase basis in estates erected on the same site. Since the better-housing program for slum dwellers concentrated on the erection of whole new estates rather than the provision of easy credit or grants for buying homes in the open market, this activity was necessarily confined to a limited number of slum areas. After several years of slum-clearance operations there are still some inhabitants who are either unwilling or unable to buy a new home, even when the down payment is very low and the credit terms most favorable. They have demanded that the new dwellings be made available at a low rental, and a start in this direction has in fact been made after there seemed to be no other way of disposing of the large stock of unsold units. The economic recession, coupled with the unsold building stock which began to accumulate at about the same time, tended to diminish the readiness to purchase new dwellings. In retrospect, it appears that the linking of better housing to occupancy in a new unit put up on the same site has reduced the

possibilities of broadening the scheme, since it is restricted to a small number of sites.

In 1967, after two years of expanding construction for agricultural settlements, the demand on the part of the cooperative moshavim and kibbutzim also subsided, despite the very favorable financing terms offered. On the other hand, infrastructural work in connection with housing estates and public buildings was stepped up. Furthermore, in the last two years, and largely on the initiative and with the support of the Ministry of Housing, there has been a marked increase in the enlargement and improvement of existing dwellings, mainly in agricultural settlements.

The data on construction starts show that, in contrast to private construction, the figure for public housing construction began to rise at the end of 1966, so that its annual level was at an all-time low in 1966 and not 1967. In 1967 there was an 11 percent advance, as against a decline of 35 percent in the private sector. The quarterly data on starts reveal an erratic pattern, which is characteristic of public construction and which swallowed up the decline in the second quarter of 1967 due to the war. In the third quarter public construction starts turned upward, but in the following quarter the volume again declined and continued in that direction in the first quarter of 1968.

The policy of the Ministry of Housing, as reflected in the development of new construction in 1966-67, represents a compromise between forces pulling in opposite directions. The slump in construction activity, and particularly the large number of unemployed building workers, created pressure for stepping up the area of starts. But offsetting this was the large number of unsold units, both those belonging to the Ministry and its companies and those of building firms and contractors in the private and Histadrut (General Federation of Labor) sectors. The Ministry responded to requests for financial help by allocating part of its budget to purchasing units out of the existing stock.

The purchase of dwellings from various construction companies in the private and Histadrut sectors is explained by the desire to stimulate private construction. Several concerns were hampered by a shortage of liquid funds, and it was feared that without Government aid (which was rendered in the form of credit and the purchase of dwellings and land) they would cut back their operations still more. But it turned out that these aid measures did not lead to an increase in new construction, since the private builders preferred to reduce their liabilities rather than undertake new construction as long as the slump continued. The Ministry of Housing apparently preferred this policy to allocating the bulk of its available funds to initiating new housing, since in this way it could *inter alia* reduce the unsold stock of units which it had put up for the regular market, and whose accumulation was difficult to justify, to begin with.

It is possible, however, that the unsold inventory need not have constituted a deterrent to additional construction. Past experience has shown that it pays the economy to maintain a stock of unsold dwellings. The existence of surplus

production capacity does not solve the problems arising from the long interval (about a year and a half) which elapses from the time a need for new construction manifests itself until the work is completed. Obviously, the private sector cannot assume the burden of maintaining such an inventory. In this context it should also be noted that the existence of unutilized production capacity in both the construction sector itself and in industries supplying it with inputs substantially reduced the real price to the economy of new construction initiated during the slump period.

The result of the compromise between the above-mentioned considerations was a growth of 11 percent in the area of public residential construction started in 1967 as compared with 1966. Despite this increase, the volume of completions in 1967 still exceeded that of starts. Thus the value of new public housing construction continued to decline in 1967, standing at IL 150 million, as against IL 350 million in 1965 and IL 260 million in 1966.

Some improvement occurred in the course of the year, the figure beginning to advance again in the third quarter. But the results for the last quarter were still lower than in the corresponding period of 1966.

#### 4. NONRESIDENTIAL CONSTRUCTION

The value of new construction for the productive and service sectors fell by 12 percent in 1967 (a sectorial breakdown is presented in Table XIII-1). This was a smaller drop than in residential construction (32 percent), and slightly less than the 16 percent decline of the previous year. As a result of the more moderate decline in nonresidential construction in 1967, it accounted—for the first time—for more than half of the value of all new construction.

Over the year as a whole, the volume of starts fell off in all sectors of the economy (see Table XIII-6). But in the last six months the trend turned upward. This development can apparently be attributed to the war, for, as with residential construction, total nonresidential starts reached their trough in the second quarter. It should be noted, however, that for commercial premises, hotels, and farm structures, the low point was recorded in the third quarter. The rise in the second half of the year merely restored the level of starts to that of the first quarter, and at year's end it was still far lower than in previous years.

The smaller percentage decline in the value of nonresidential as compared with residential construction can be ascribed to the increase in public buildings, roads, and mines and quarries. The larger figures for roads and public buildings was a direct outcome of the Government's policy of encouraging building.

In types of building where the private sector predominates—industrial and commercial premises, offices, and hotels—the value of new construction continued to fall off, at an even steeper rate. A survey of the stock of unsold buildings carried out in the middle of 1967 may help explain this development. The



**Table XIII-6**  
**AREA OF NONRESIDENTIAL CONSTRUCTION, 1960-67**

(thousand sq. meters)

	1960	1961	1962	1963	1964	1965	1966	1967
<b>Construction started</b>								
Agriculture and irrigation	268	177	204	177	194	108	176	171
Industry and crafts	464	506	553	542	720	437	283	198
Commercial and office buildings, hotels, etc.	259	295	182	214	315	330	227	145
Public buildings	365	477	447	456	628	768	634	492
Total	1,356	1,455	1,386	1,389	1,857	1,643	1,320	1,006
<b>Construction completed</b>								
Agriculture and irrigation	358	218	170	174	175	191	140	135
Industry and crafts	374	551	456	476	560	587	506	232
Commercial and office buildings, hotels, etc.	134	233	194	110	206	274	270	177
Public buildings	424	375	392	403	460	547	801	492
Total	1,290	1,377	1,212	1,163	1,401	1,599	1,717	1,036

SOURCE: Central Bureau of Statistics.

unsold stock of completed buildings and of buildings in process for industry and crafts amounted to about 30 percent of the average annual volume of starts and completions of such construction in the last five years. The rate for commercial premises and offices was higher still, the unsold stock even exceeding the average annual figure for the same period. Since a significant proportion of the industrial and commercial premises and offices was constructed according to specific orders, the size of the unsold stock in comparison with the volume of construction for sale and rental was even greater. The worse state of construction for the commerce sector compared with that for industry is explained by the continued upsurge in building starts at the end of 1964 and the beginning of 1965 in anticipation of the impending administrative curbs on building. At the same time, the start of construction for industry and crafts, which was not affected by the restrictions, was already being curtailed.

In both sectors the value of new construction in 1963-65 was undoubtedly higher than the long-run trend and even exceeded current demand, as is borne out by the data on the unsold inventory (see also Tables XIII-2 and XIII-5 for an annual comparison). In the Bank of Israel Annual Report for 1966 this development is explained as being a by-product of the general real estate boom, which *inter alia* induced business and industrial concerns in urban centers to move into new premises in places where land was cheaper, while disposing of

the old site at a considerable profit. In these cases, only part of the new construction can be regarded as a net increment to the stock of buildings.

In the light of these developments, the volume of starts and the value of new construction could have been expected to fall off. But in 1967 they were below the long-run trend, although perhaps not lower than current demand. The decline was a result of the general recession, which obviously affected mainly new investments, and of the large supply of unused buildings. It transpired that even if the output of the industrial, commercial, and service sectors did in fact expand in 1967 and result in a stronger demand for additional buildings for these purposes, the incremental demand could have been met out of the existing stock. At any rate, the year reviewed saw no significant expansion of construction starts for these purposes.

The value of new construction for public institutions and services was down 16 percent, after holding steady the year before. Over the year as a whole, there was also a substantial drop in the area of starts, in spite of the efforts made from the middle of 1966 to advance the beginning of work on Government offices and other public buildings. In contrast to the Government's attempt in this direction, the erection of public buildings by the private sector and non-profit institutions continued to fall off, and even more steeply. An exception was the stepped-up construction of Sick Fund clinics designed to take advantage of the slump in order to obtain cheaper building and more convenient terms, and in response to the demands of the building workers union. In the second half of 1967 public institution starts resumed their upward movement, but this merely brought up the level to that of 1966 and failed to compensate for the decline in the first half of 1967.

The large sum spent on new construction in the mining and quarrying sector was due entirely to the resumption of building at the Dead Sea Works. Other investments, particularly those in the chemical complex at Arad, were postponed for various reasons, and will be implemented only in early 1968.

Whereas in the previous year agriculture was the only sector to show an increase in building starts, in 1967 it too contributed to the general decline. The larger volume of starts in 1966 was reflected by a slight rise in the value of new construction in the year reviewed.

## 5. INPUT

The decline in the volume of construction was accompanied by a further drop in the consumption of imported and locally produced building materials, including, this year, items required for the finishing stages as well, such as sanitary ceramics, electric wire and fittings, plumbing equipment, tiles, etc. Data on industries supplying construction materials show a corresponding cutback in production until the middle of the year. In the second half, after a precipitate decline due to the war, production of inputs again rose. In those for the

initial stages of construction, the fourth-quarter level of production was higher than at the beginning of the year and similar to the average for 1966. On the other hand, in inputs for the advanced stages recovery was less rapid. The difference can be attributed to the renewal of the upswing in building starts in the second half of the year and to the demand for primary inputs on the part of the defense establishment, as contrasted with a further drop in the number of buildings completed or under construction. The stepped-up pace of roadbuilding and of work for the Ministry of Defense, together with the larger area of building started, resulted in a shortage of heavy mechanical equipment for earthwork and paving. Imported inputs for current production showed a similar picture. They declined from \$ 17 million in 1965 to \$ 7.4 million in 1967, and during 1967 advanced from a low of \$ 1.4 million in the second quarter to \$ 2.3 million in the last quarter.

Prices of building materials held comparatively steady during the year, with products for the final stages of construction displaying a mildly declining tendency, after having risen throughout the previous year. Rental charges for mechanical equipment and haulage rates, which had fallen steeply in 1966 and the first half of 1967, jumped after the war because of the strong demand.

Construction prices drifted downward during the slump, even though input prices rose at first, or at most were stable during most of the period. The decline in construction prices was mainly at the expense of contractors' profits, who even incurred losses, as they did not charge the full price, including provision for depreciation and imputed interest on their own equipment. Some contractors enjoyed a reduction in labor, equipment, and other costs, but at the same time labor costs went up in other concerns, particularly the larger ones with a permanent work force and possessing their own equipment and transport facilities. The rise in building starts in the second half of the year and the additional demand on the part of the defense establishment led to a renewed increase in construction costs toward the end of the year.

The index of residential construction input prices remained almost unchanged in 1967 (there was a rise of 1.1 percent toward the end of the year, due mainly to the devaluation). The index of input prices in roadbuilding went up 2.4 percent, all of the rise occurring in the second half of the year.

In estimating the value of new construction, it was assumed that building costs remained unchanged. This assumption was also made in 1966 because of the conflicting information available—a rise of about 8 percent in the index of residential construction prices and a decline of several percent in construction prices according to other sources.<sup>1</sup> In 1967 the index held firm, but other sources

<sup>1</sup> The problem arises from the present system of measurement, the prices of various key items being measured according to the tariffs and not actual payments. In earlier years the differential was most marked in the wage item, and in the last two years in transportation as well.

showed a further drop in the first half of the year and a reversal of trend in the second half.

Investment in construction equipment of all types—which in the boom period reached approximately IL 70 million and in 1965, on the eve of the slump, rose to IL 83 million—fell off sharply in 1966 to IL 30 million and in 1967 to IL 12.6 million. This accompanied the cutback in construction activity; with the renewed increase in the latter in the second half of the year, the import of equipment rose again, particularly that for earthwork and roadbuilding, which was in short supply after the war. It should be noted that during the slump Israeli firms shipped some of their construction equipment to other countries where they had undertaken jobs. In 1967 about \$ 1 million worth of equipment was sent overseas.

The building slump did not disrupt the long-run trend toward mechanization and the switch to new products. Greater use is being made, for instance, of plastic materials in place of wood and asbestos, and of Ytong blocks instead of silicate bricks. An exception is the use of prefabricated construction, which was detrimentally affected by the curtailment of activity, mainly because production capacity reached a peak only in 1966 with the completion of three additional factories for prefabricated buildings. Under conditions of stable and even declining wages and of idle building equipment, it was difficult for prefabricated construction to compete with ordinary construction. Purchases of prefabricated dwellings by the Ministry of Housing were much smaller than what had been promised, because of the sharp drop in immigration. The situation eased somewhat after the war, when there was a demand for prefabricated structures on the part of the Ministry of Defense.

## 6. EMPLOYMENT AND WAGES

The average annual number of gainfully employed in construction dropped by about 18 percent, from approximately 76,000 in 1966 to 63,000. Employment continued downward in the early part of the year reviewed, apparently at an accelerated rate, as various construction firms despaired of a quick revival of activity and finally laid off redundant workers. In the second half of 1967 gainful employment began to rise with the expansion of activity, and between the first and last quarters the figures went up 12 percent.

In the latter part of the year a shortage developed of skilled scaffolding erectors and ironbenders, demand for whom had risen greatly following the expansion of both civilian and security construction starts. It will be recalled that these types of workers were the first to be dismissed in 1965, and presumably many of them left the building industry for good. In the wake of this shortage, the training of building workers, which had been discontinued in 1966, was reinstituted. On the other hand, dismissals were continued of workers engaged in the advanced stages of construction, such as plasterers, tilers, carpenters, painters, etc.

During the slump the industry laid off close to 30,000 workers, or about one-third of the labor force in the boom year 1965 and about half of those who remained in 1967. The level of employment thus returned to that of 1961-62. Just as output per worker increased during the period of buoyant activity, so it declined during the slump, and in 1967 it tapered off at the 1961 figure. In the meantime, however, there was a big increase in the capital stock per worker and an improvement in production methods.

Official wage rates remained unchanged in 1967, and average monthly earnings per employee were almost the same as in 1966 (a decline of 0.4 percent). Actual wage rates, however, apparently continued downward; the stability in average monthly earnings is explained by the continued structural change in the sector's labor force following the dismissal of a higher percentage of unskilled and temporary workers.

The slump in construction, which was more severe than the general economic slowdown, was reflected by a change in the relative position of the sector in employment and wage data. Its weight in total gainful employment, which began to rise steadily in 1961 until it reached 10.4 percent in 1965, fell to 7.6 percent in 1967. The rate of unemployment among building workers was double that for the rest of the economy (the reference is to skilled labor only). This situation was mirrored by a decline in the percentage of unfilled requests for skilled building workers, from about 20 percent at the beginning of 1965 to approximately 2 percent at the beginning of 1967. Whereas in 1961-64 wage increases in construction exceeded the average for the economy as a whole, in 1965 they were the same as the general average, and in the last two years they were below average. With respect to strikes as well, the picture was different in construction. In the economy as a whole the total number of strikes decreased during the recession. Only those growing out of dismissals showed an increase, and in construction, where this was a particularly serious problem, disputes on this score resulted in a larger number of strikes, strikers, and days lost—in contrast to the general trend in the economy.