CHAPTER XII

CONSTRUCTION AND HOUSING

1. Main Developments

Construction activity continued upward in 1969, at a somewhat faster rate than in the preceding year. The sector's output totalled some IL 2,700 million at 1969 prices, approximately 24 percent more than in 1968, 55 percent above the level of the recession year 1967, and 14 percent more than in 1965, the previous boom year in this sector.

Most of the incremental activity was accounted for by a 33 percent rise in the value of residential construction put in place and by a 38 percent rise in noninvestment output (for security purposes, maintenance, and repair work). Nonresidential construction expanded at the relatively slow rate of some 10 percent; nearly all of the increase was in "other construction work" (such as the Eilat-Ashkelon oil pipeline), whereas the value of new building construction remained at about the level of 1968.

In residential construction the most significant development in 1969 was the low level of completions—only some 26,000 units all told. In the previous year almost the entire stock of empty dwellings had been sold, so that, despite the larger volume of current completions in 1969, the supply of new units failed to match that of 1968 or the mounting demand in the year surveyed. This was reflected by a sharp rise of prices—about 12 percent (on an annual average) in the country as a whole and as much as 24 percent in Jerusalem.

The shortage of finished dwellings continued to stimulate new building starts. During the year nearly 36,000 units were begun on an annual average, with the pace accelerating to the equivalent of 40,000 units in the second half. In contrast to 1968, public residential construction was also stepped up, and by the end of the year housing construction was apparently approaching the level of demand anticipated in the next few years.[1]

The excess demand for finished housing prompted builders to shorten construction time in comparison with previous years, thus averting a still graver

[1] This estimate is based on a long-range forecast prepared by the Ministry of Housing on the strength of the projected increase in the number of households and incomes. Support for this estimate is found in the data on housing completions during the past 10 years, which show an average of 32,500 units per annum, with annual fluctuations ranging from 22,000 to 40,000. The fluctuations in the number of new units occupied were less pronounced, since there was an accumulation of empty units in 1964–66, which was gradually depleted during the years 1967–69.

Table XII–1

INDICATORS OF CONSTRUCTION ACTIVITY, 1964–69[a]

(rounded figures)

	1964	1965	1966	1967	1968	1969	Percent annual increase or decrease (–) in 1969
Construction output (IL million, at 1969 prices)							
Residential	1,035	1,110	895	605	705	935	33
Nonresidential	990	1,060	955	840	1,020	1,130	11
Total value of new civilian construction	**2,025**	**2,170**	**1,850**	**1,445**	**1,725**	**2,065**	**20**
Other[b]	190	210	240	290	465	645	39
Total output	**2,215**	**2,380**	**2,090**	**1,735**	**2,190**	**2,710**	**24**
Building starts (thousand m^2)							
Residential	3,750	3,090	2,060	1,650	2,390	3,560	49
Nonresidential	1,860	1,640	1,360	1,165	1,430	1,260	–12
Total	**5,610**	**4,730**	**3,420**	**2,815**	**3,820**	**4,820**	**26**
Number of dwelling units started							
Private construction	21,080	18,900	13,910	9,750	15,770	22,550	43
Public construction	27,300	18,980	8,590	9,230	8,420	13,430	60
Total	**48,380**	**37,880**	**22,500**	**18,980**	**24,190**	**35,980**	**49**
Number of dwelling units completed							
Private	18,800	18,520	18,520	15,330	13,110	16,720	28
Public	19,180	19,900	19,060	12,570	9,420	9,150	–3
Total	**37,980**	**38,420**	**37,580**	**27,900**	**22,530**	**25,870**	**15**
Number of employed (annual average)[c]	87,000	92,000	75,600	63,000	75,000	83,000	11
Purchases of construction equipment (IL million, at 1969 prices)	70	76	26	8	65	73	12
Domestic sales of cement ('000 tons)	980	1,044	867	650	948	1,242	31
Domestic sales of reinforcing bars ('000 tons)	94	113	82	70	103	135	31

[a] Data for 1969 are provisional; data for earlier years have been revised.
[b] Partial estimate; includes defense construction, maintenance, and repair work.
[c] Including approximately 2,000 workers from the administered areas in 1968 and about 6,000 in 1969.
SOURCE: Central Bureau of Statistics and Bank of Israel.

shortage of completed units as a result of the low level of building starts during the two preceding years.

In nonresidental construction starts, increases were recorded only for industry and agriculture; as regards public buildings, commercial and office premises, and hotels, the volume apparently declined (according to provisional data).

Several reasons can be advanced for the relatively moderate increase in nonresidential construction during a year of buoyant economic activity. First is the fact that, unlike other construction activity, the level had remained comparatively high even during the slump. Secondly, the years 1962–65 witnessed an overbuilding of industrial and commercial premises, so that a sizable stock of unused buildings was accumulated. Moreover, the postwar expansion has been characterized by replacements of and additions to equipment in existing enterprises; this has reinforced the long-run downward trend in the share of buildings in total nondwelling investment, attributable primarily to the longer life of buildings as compared with equipment. Finally, the policy of regulating construction introduced at the end of 1968 probably reduced the area of public buildings started.

The construction sector itself and allied industries quickly responded to the upturn in activity. The existence of unexploited production capacity in the building materials industry permitted a rapid expansion of output to meet domestic demand, although some items were switched from exports to domestic consumption (e.g. cement and glass). In only a few of the principal materials (e.g. cement and reinforcing bars) did a temporary shortage crop up, and this was alleviated by imports. The output of precast and prefabricated parts was stepped up, with some plants that had shut down in previous years being reactivated. Prefabricated construction was employed on a particularly large scale by Israeli builders in the administered areas.

The total number of persons employed in construction averaged 13 percent higher than in 1968, but an increase in the number of man-days per employed brought up the sector's labor input by about 18 percent.

The year reviewed saw a continuation of the fundamental change that began to take place in the manpower situation after the Six Day War. Thanks to the elastic supply of building workers from the administered areas, construction employment expanded rapidly. In contrast to the big increase in the number of Arab workers (at the end of 1969 approximately 10,000 persons from Judea, Samaria, and the Gaza Strip were working in Israel), manpower surveys show that in 1969 many Jewish workers abandoned the building trades.

In the course of the year a shortage of skilled labor apparently began to develop in certain trades or in certain localities, but neither the employment data nor those on the volume of work executed point to a general labor shortage of such a magnitude as to seriously restrict or retard the implementation of projects, particularly housing.

Table XII–2

VALUE OF NEW CONSTRUCTION, BY TYPE, 1965–69

(IL million, at 1969 prices)

	1965	1966	1967	1968	1969	Annual increase or decrease (–) in 1969		Percentage distribution	
						IL m.	%	Total output in 1969	Incremental output in 1969
Residental									
Public	395	295	173	167	239	72	43	9	14
Private	714	600	432	536	695	159	30	26	31
Total residential construction	**1,109**	**895**	**605**	**703**	**934**	**231**	**33**	**34**	**44**
Nonresidential									
Agriculture	35	38	32	37	39	2	5	1	0
Industry, mining, quarrying	177	106	87	131	127	–4	–3	5	–1
Electric power	48	50	37	37	61	24	65	2	5
Water	68	68	66	50	33	–17	–34	1	–3
Transportation and communications	248	215	212	307	377	70	23	14	13
Commercial premises	71	60	36	31	24	–7	–23	1	–1
Hotels and other guest establishments	37	24	26	42	37	–5	–12	1	–1
Public institutions and services	373	387	346	384	431	47	12	16	9
Total nonresidential construction	**1,057**	**948**	**842**	**1,019**	**1,129**	**110**	**11**	**42**	**21**
Thereof:									
Buildings	*623*	*568*	*455*	*525*	*567*	*42*	*8*	*21*	*8*
Other construction work	*434*	*380*	*387*	*494*	*562*	*68*	*14*	*21*	*13*
Total value of new construction	**2,166**	**1,843**	**1,447**	**1,722**	**2,063**	**341**	**20**	**76**	**65**
Noninvestment output[a]	**210**	**240**	**290**	**465**	**645**	**180**	**39**	**24**	**35**
Grand total	**2,376**	**2,083**	**1,737**	**2,187**	**2,708**	**521**	**24**	**100**	**100**

NOTE: Discrepancies in totals are due to the rounding of individual items. Data for 1969 are provisional; those for earlier years have been revised.

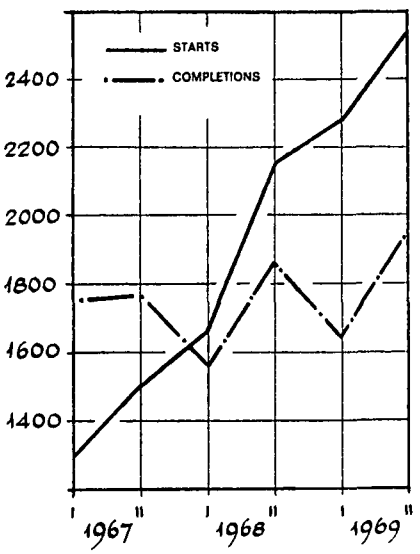
[a] Defense construction, maintenance, and repair work.

Prices of construction inputs[1] went up by 4.2 percent on an annual average, while the rise during the year came to 5.4 percent. Approximately half the increase during the year can be ascribed to the raising of prices abroad, especially of metals and metal products. Mounting demand was responsible for only a few price hikes of building materials, chiefly those required in the early stages of construction, such as cement products, Ytong blocks, and silicate bricks. Wage-labor costs went up by about 6 percent on an annual average, and 4 percent when the comparison is made for December levels.

Figure XII-1

TOTAL AREA OF BUILDING CONSTRUCTION STARTED AND COMPLETED, HALF-YEARLY, 1967–69

(thousand sq. meters)



While the 4.2 percent average rise in construction input prices was greater than the 3.5 percent rise in GNP prices, it should be pointed out that the sector's output expanded by 24 percent in 1969 and by a total of some 55 percent over the past two years. In view of these high growth rates—more than double that for the national product—and considering that the sector is among the least institutionalized as regards wages, the rise in building costs during 1969 was fairly moderate, even though wages moved up faster here than anywhere else in the economy.

With the intensification of construction activity, the Government began to restrict the erection of public buildings, in conformity with a decision reached by a ministerial committee at the end of 1968 and which became a binding order in August 1969. Under this administrative order the commencement is banned of public buildings (except schools and kindergartens), as well as of business and office premises; as already mentioned, in 1969 it apparently succeeded in curtailing the volume of starts of public buildings.[2] This policy was introduced because of fears that a shortage of factors of production—especially building workers—would develop and hold up *inter alia* the erection of housing for new immigrants and the completion of defense construction in border settlements. At the same time, it should be noted that these curbs dovetailed with the Government's general policy of moderating the economy.

[1] For details see section 4 below.

[2] Because the construction period for public buildings is particularly long, the curbs imposed on new building starts had only a negligible effect on total construction output in 1969 (this is discussed more fully below).

Table XII-3

AREA OF BUILDING CONSTRUCTION STARTED AND COMPLETED, BY TYPE, 1962–69[a]

(thousand sq. meters)

	Annual average 1962–65	1966	1967	1968	1969	Percent increase or decrease (–) in 1969	
						As against 1968	As against average 1962–65
				Starts			
Residential	3,322	2,057	1,650	2,390	3,558	48.9	7.1
Private	*1,906*	*1,496*	*1,014*	*1,725*	*2,464*	*42.8*	*29.3*
Public	*1,416*	*561*	*636*	*665*	*1,094*	*64.5*	*–22.7*
Nonresidential	1,569	1,364	1,165	1,432	1,263	–11.8	–19.5
Total	**4,891**	**3,421**	**2,815**	**3,822**	**4,821**	**26.1**	**–1.4**
Thereof:							
Private building	3,077	2,308	1,684	2,682	3,367	25.5	9.4
Public building	1,814	1,113	1,131	1,140	1,454	27.5	–19.8
				Completions			
Residential	2,936	3,116	2,381	1,987	2,451	23.4	–16.5
Private	*1,651*	*1,888*	*1,598*	*1,368*	*1,790*	*30.8*	*8.4*
Public	*1,285*	*1,228*	*783*	*619*	*661*	*6.8*	*–48.6*
Nonresidential	1,344	1,755	1,137	1,434	1,155	–19.5	–14.1
Total	**4,280**	**4,871**	**3,518**	**3,421**	**3,606**	**5.4**	**–15.7**
Thereof:							
Private building	2,671	3,058	2,352	2,359	2,588	9.7	–3.1
Public building	1,609	1,813	1,166	1,062	1,018	–4.1	–36.7

[a] Data for 1969 are provisional; those for previous years have been revised.
SOURCE: Central Bureau of Statistics.

Construction activity initiated in the administered areas by the local population was on a larger scale in 1969, but in terms of the area of construction and the consumption of building materials, it constituted only 1–2 percent of the total volume of building in Israel. The real influence of the administered areas on this sector lay, as previously pointed out, in the provision of labor for employment in Israel and for construction work carried out by Israeli builders in these areas.

2. Residential Construction

In residential construction the most notable developments in 1969 were the sustained rapid growth in the number of units started—this shot up 50 percent over the 1968 figure—and the moderate rise of 17 percent[1] in the number completed, after a sharp drop in 1967–68. Despite the increase in completions in the year reviewed, the level was still low relative to both the prerecession years and the current demand for finished housing (see Table XII–1).

The upturn in demand noticeable since mid-1967 grew more pronounced in 1969. Although their individual contributions cannot be quantified, the following factors were among those responsible for the heavier demand: the rise in gross immigration from about 18,000 in 1967 to approximately 30,000 in 1968 and 38,000 in 1969; the increase in the annual marriage rate of the Jewish population from 7.7 per thousand persons in 1967 to 8.6 in 1968 and 8.9 in 1969; the rise in the average annual birth rate for the Jewish population from 21.5 per thousand persons in 1967 to 22.8 in 1968 and 23.3 in 1969; the steady growth of employment and incomes; and the tendency to advance purchases because of expectations of higher prices, a reversal of the public's behavior during the recession.[2]

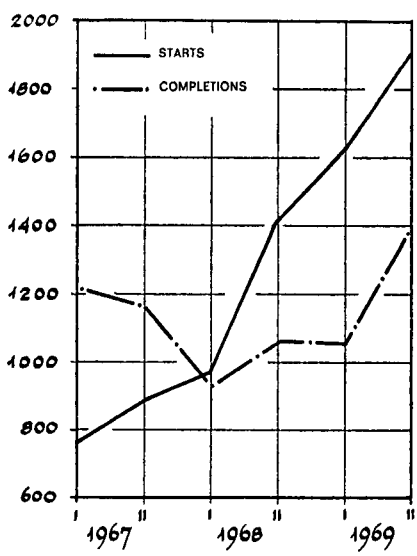
Changes in demand can be estimated on the strength of data on building starts and unsold dwelling stocks in 11 urban centers (which account for some 90 percent of total private urban residential construction). It turns out that during the six months April to September 1969 the volume of sales in these places increased by some 40 percent over the preceding six months.

It is noteworthy that in 1969, along with a much brisker demand, the volume of housing starts almost doubled compared with 1967. The volume of current completions, however, was smaller than in 1967.

The year 1969 was thus characterized by a strongly rising demand for housing, while the total supply (from current completions and the unsold inventory) was

Figure XII–2

AREA OF RESIDENTIAL CONSTRUCTION STARTED AND COMPLETED, HALF-YEARLY, 1967–69



(thousand sq. meters)

[1] 23 percent in the area of completions.

[2] See Chapter XVI, "Financial Institutions", for the effect of the expansion of mortgage credit on housing demand.

only about two-thirds of that available during the 1967 slump year. The difference in the housing situation in these two years was reflected *inter alia* by an advance of more than 20 percent in dwelling prices between mid-1967 and mid-1969.

Though the number of dwelling units completed went up from 22,000 in 1968 to 26,000 in the year under review, the increase in the number of units put on the market was smaller in 1969. This is explained by the fact that the stock of unsold finished units remaining from the recession was almost completely sold in the course of 1968.

Figure XII–3

AREA OF PUBLICLY FINANCED RESIDENTIAL CONSTRUCTION STARTED AND COMPLETED, HALF-YEARLY, 1967–69

(thousand sq. meters)

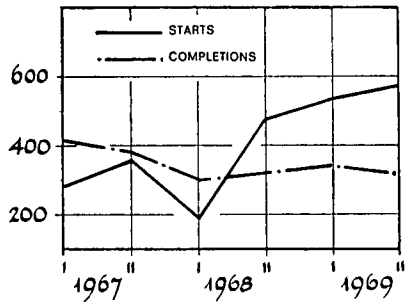
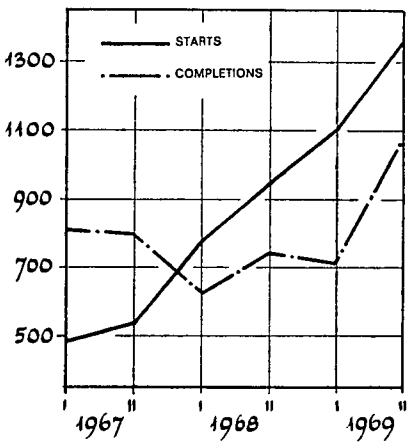


Figure XII–4

AREA OF PRIVATE RESIDENTIAL CONSTRUCTION STARTED AND COMPLETED, HALF-YEARLY, 1967–69

(thousand sq. meters)



Data for the end of 1969 nonetheless indicate that the shortage of finished dwellings has been diminishing since the reversal of the downtrend in current completions. As expected, housing starts adjusted to the buoyant demand (though only after a considerable time-lag in the case of publicly financed residential construction), and the volume of starts during the second half of 1969 at an annual rate of some 40,000 units should, upon completion of the units, be sufficient to meet demand, even if it persists at its present high level.

With the upturn in demand for housing after the Six Day War, private builders stepped up the volume of starts considerably, and the results were already apparent in 1969, when the number of dwelling units completed reached 16,700 as against 13,000 the year before. By contrast, public residential construction, which in earlier years had been intended predominantly for subsidized groups, such as new immigrants, former slum residents, young married couples, and the like, did not begin to expand until the second half of 1968. Consequently, the supply of finished units not only failed to increase in 1969 but even declined from 9,400 units in 1968 to 9,150.

To overcome the shortage of publicly initiated housing and to meet the

requirements of the growing wave of immigrants, the Government took action along two lines. On the one hand, it purchased housing directly and indirectly in the regular commercial market from contractors and secondhand, made a much larger amount of mortgage financing and grants available to new immigrants so as to enable them to buy housing in the open market, subsidized their rental payments, made loans and grants available to relatives providing accommodations for them, and extended the network of absorption centers and residential *ulpanim* (which provide intensive Hebrew courses).

On the other hand, the Government was forced to curtail and defer its support for other subsidized groups: the urban renewal program was slowed down, building for newly married couples was cut back, applications for the exchange of dwellings between one locality and another were turned down, etc. There was no alternative to this policy during a year when demand for finished housing far exceeded supply, since the nonrestriction of demand would have been reflected mainly by a steep rise of prices, and any effect on the supply of finished units would have been insignificant, owing to the length of time required for construction.

Limiting public subsidies in a period of housing shortages and booming construction activity should, however, be complemented by increased help to prospective occupants in times of housing surpluses and a slump in construction. Loans and grants to those moving from slum quarters, to newly married couples, and even to those purchasing homes in the open market would cost the economy less during a period of flagging economic activity than the granting of smaller financial subsidies in periods of boom and full employment.

(a) *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 was influenced mainly by market forces, while subsidized construction, initiated and financed by the public sector, was intended for new immigrants and persons living in 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 recession homes originally intended for new immigrants were used for other purposes, since 1968 units built under the Saving-for-Housing Scheme, for new couples, and even for slum dwellers have been 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 in urban centers, and the increase in personal transfers from abroad in the last two

years should perhaps be viewed in this connection.[1] Owing to the shortage of housing, which has been particularly acute in the case of larger dwellings in urban public housing estates, the Government has also turned to the private market, buying up dwellings directly, besides helping to finance the individual purchase of homes in the open market.

These developments partly explain the much greater volume of private construction starts in the year reviewed. It is even conceivable that part of these 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.

(b) *Building standards*

The rising trend in the average area and number of rooms per dwelling unit carried over through 1969. The proportion of units with four or more rooms went up from 12.5 percent of all residential starts in 1967 to 27 percent in 1969, with both private and public construction sharing in the increase.

The increased proportion of dwellings with four or more rooms was at the expense of one- and two-room units. Three-room units still topped the list in 1969, their share coming to fully 60 percent.

Two factors have accentuated the impact of the long-run advancing trend in incomes on the size of new residential units. One is the structural change in immigration in recent years in favor of those from affluent countries, coupled with the readiness of the Government to help them obtain more spacious dwellings. The second factor has been the larger weight of private building within total residential construction.

The increase in the average size of residential units from 72 square meters in 1964 to 93 in 1969 is indicated by the data on residential starts. The 3.6 million sq. meters of residential building begun in 1969 was near the record 3.75 million sq. meters of 1964, but the number of units was much smaller in 1969—36,000 as against 48,000 in 1964. These figures mean that, because of higher building standards, a greater effort was needed in 1969 than in 1964 to produce a given number of dwelling units. However, it should be pointed out that, since certain costs do not depend on the area and hence represent a more or less constant component, expenditure per sq. meter of residential construction declines with an increase in the size of the unit. This is clearly borne out by a comparison of the years 1965 and 1968, which shows that building costs per sq. meter of residential construction were reduced despite a rise in building standards and the dearer cost of inputs.

[1] Private transfers in cash rose from $ 84 million in 1967 to $ 134 million in 1968 and $ 162 million in 1969.

(c) *Housing prices*

The excess demand for housing led to an accelerated rise in its prices. On an annual average, the level moved up by some 11 percent in 1969, but the latest data available show an increase of 14.5 percent between July 1968 and July 1969. The brisk volume of sales during this period attests to the heavy demand pressure.

A comparison of the increase in residential building starts in the three principal cities with the average rise in housing prices is illuminating.[1] (In the absence of specific data on demand, we have assumed that it grew at about the same rate in the three cities.) As expected, the rate of price rise was in inverse ratio to the expansion of supply. In Jerusalem, the number of units begun edged up only 1 percent during 1969,[2] while prices soared by an average of 24 percent. In Haifa, the number of starts went up by 48 percent and prices by 12 percent, while the figures for Tel Aviv were 98 and 5 percent respectively. These data strengthen the assumption that what drove up prices in 1969 was chiefly the failure of supply to catch up with the mounting demand for housing, with the rise in building costs playing only a minor role.

In analyzing prices, the renewed practice of linking to the index of residential building costs the balance (i.e. after the down payment) due on a home purchased before its completion is of interest. This practice prevailed during the previous boom period, was abolished during the recession, and was renewed at the end of 1969 by some of the larger construction companies. Since mid-1967, when construction activity began to pick up, the index of residential building costs has lagged far behind that of housing prices: in 1969, for instance, it went up only 2.3 percent on an annual average, while housing prices climbed by more than 11 percent. Apparently the building firms that reinstituted linkage expected prices to stop rising following the expansion of supply, and hence did not hold back on sales; at the same time, they apparently also anticipated a resumption in 1970 of the long-delayed rise in construction input prices, with both wages and building materials going up—the former with the impending renegotiation of wage agreements, and the latter with the virtual disappearance of unutilized production capacity.

3. Nonresidential Construction

The total value of construction for nonresidential purposes went up by a relatively moderate 11 percent in 1969. The most significant increases were in the

[1] The data cited are based on prices of completed dwellings as recorded by the Land Registry Office.

[2] The virtual stagnation in 1969 in total residential construction starts in Jerusalem was due entirely to the decline in public building starts from 1,950 units in 1968 to 1,180 in the following year. In contrast to this, private residential construction starts went up during the year from 1,230 to 2,040 units.

transportation sector (the big oil pipeline between Eilat and Ashkelon), in electricity generation (the Reading "D" power station in Tel Aviv), and in the erection of public institutions and installations (mainly higher education and health institutions). The figure for industrial premises remained stable, while that for commercial and office buildings, hotels, and water projects fell (see Table XII–2).

A preliminary estimate of the volume of nonresidential building starts in 1969 gives a figure about 13 percent lower than the revised estimate for 1968 but almost identical with the initial estimate for 1968.[1] It would thus be premature to conclude that the volume of nonresidential building starts decreased in 1969, but at the same time it is obvious that there was no expansion to speak of (in contrast to the 50 percent jump in residential building starts), despite the fact that in 1968 as well there had been no significant increase. In view of the vigorous growth of the economy since mid-1967, this requires explanation.

But this should be prefaced with a general observation: it is wrong to assume that the volume of construction starts always reflects the current demand for new buildings, as will become clear from the following description of developments in earlier years.

The years 1962–65 witnessed an overbuilding of industrial premises (including workshops) by construction firms (some of them owned by the Government or municipalities) as a result of the general boom in the real estate market. Among other things, the boom 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 handsome profit. In such cases, only part of the new construction can be regarded as a net increment to the stock of buildings.

The outcome was an excessive volume of starts in 1962–65, which did not reflect the current demand for industrial premises and hence cannot serve as a fair basis for comparison; nor did the volume of starts during the last two years accurately reflect the current demand, but apparently fell below it. This was so because part of the demand for additional buildings for industry and crafts was met from the stock of unsold premises erected during the previous period of overbuilding. (A partial survey carried out in the middle of 1967 showed that the unsold inventory amounted to nearly 42 percent of the average annual volume of building starts and completions during the three preceding years.)

Other reasons for the moderate increase in industrial construction starts relative to the growth of industrial output and outlays on industrial equipment during

[1] Preliminary data on building starts tend to be understated, owing to 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 1969 may actually have been greater than shown by the preliminary data cited here (the revised figure for nonresidential building starts in 1968 is 11 percent higher than the figure cited in the *Annual Report* for 1968).

Table XII–4

AREA OF NONRESIDENTIAL BUILDING CONSTRUCTION, 1963–69

(thousand sq. meters)

	1963	1964	1965	1966	1967	1968	1969[a]
				Construction started			
Agriculture and irrigation	177	194	108	176	196	141	152
Industry and crafts	542	720	437	288	233	335	370
Commercial and office buildings, hotels, etc.	214	315	330	246	176	218	178
Public buildings	456	628	768	654	560	738	563
Total	**1,389**	**1,857**	**1,643**	**1,364**	**1,165**	**1,432**	**1,263**
				Construction completed			
Agriculture and irrigation	174	175	191	140	139	172	140
Industry and crafts	476	560	587	510	288	324	312
Commercial and office buildings, hotels, etc.	110	206	274	298	206	324	183
Public buildings	403	460	547	807	504	614	520
Total	**1,163**	**1,401**	**1,599**	**1,755**	**1,137**	**1,434**	**1,155**

[a] Preliminary estimates. In previous years the preliminary estimates generally turned out to be biased downward by more than 10 percent. Consequently, the revised figures for 1969 may not be lower than those for 1968.

SOURCE: Central Bureau of Statistics.

the last two years are the relatively longer life of buildings compared with equipment; the changes in production patterns accompanying the revival of economic activity after the Six Day War, which necessitated replacement of equipment but not necessarily of buildings; and the relatively long time that elapses between the launching of a project and the actual start of work (the decision to build, the selection, acquisition, and preparation of a site, and the procurement of the necessary permits).[1] Moreover, such speculative considerations as the expectation of a change of exchange rates by several countries, including a devaluation in Israel, probably induced many enterprises to advance their equipment orders, in some cases even before the buildings to house the equipment were ready.

A similar picture is revealed for commercial and office premises. In fact, the previous overbuilding for sale and rental purposes was even more pronounced here than in the case of industrial premises. Attempts to regulate the erection of commercial and office buildings at the end of 1964 and the beginning of 1965 only gave added impetus to the start of new construction. This resulted in a huge vacant stock, which at the time of the mid-1967 survey was 16 percent greater

[1] See also Chapter V, "Domestic Investment".

than the average annual volume of starts and completions of commercial and office premises and hotels during the three years preceding the survey. This is the background to the low level of building starts for these purposes in 1969.

As to new construction for public institutions and services, a comparison of preliminary data for 1969 with final data for 1968 show that the volume of starts was cut back severely (by 24 percent), but compared with the estimates based on preliminary data for 1968, the decline was more moderate—about 7.5 percent. On the other hand, the value of new construction for this purpose was 12 percent higher than in 1968. (These disparate rates of change were due, of course, to the long gestation period of building construction, which is particularly marked in the case of big public buildings.) The decline in the volume of starts can be ascribed to the aforementioned policy of restricting such construction.

But here too the volume of construction in earlier years was influenced by special factors. In 1964–65 there was a jump of over 50 percent in the area of starts, which in part can be attributed to the impending building curbs. During the recession this type of construction was less affected than that for other purposes—initially because it was less dependent on commercial considerations, and later because of a deliberate effort to alleviate unemployment in the construction sector. Part of the growth in building starts in 1968 can be ascribed to the delayed launching of projects planned during the recession.

Most affected by the above-mentioned administrative curbs on the construction of public buildings (except schools and kindergartens) and commercial and office premises have been institutions of higher education, hospitals, and other public services (such as telephone exchanges) requiring special structures. Commercial and office premises seem to be less vulnerable, since there is still a relative surplus of such buildings. Government departments for which an expansion of office space had been budgeted have also been able to benefit from this surplus supply, since they can (and do) purchase space in buildings put up by private construction firms.

4. Factors of Production

The 24 percent growth of construction output in 1969 was, of course, accompanied by a heavier consumption of building materials, a larger labor input, and the purchase of additional equipment. Since construction was still expanding, most of the incremental demand was for inputs for the early stages of building, and their consumption rose more rapidly than that of other inputs. Domestic sales of cement and reinforcing bars, for instance, jumped by some 30 percent, and those of Ytong products by about 40 percent. The labor input and purchases of construction equipment were also substantially larger. In products required for the final stages expansion was slower. In the course of the year temporary bottlenecks developed in the supply of cement, reinforcing bars, and some metal

products, and a shortage of highly-skilled building workers (primarily foremen) also cropped up. In some localities, such as border settlements where construction was on a far greater scale than usual, a mild shortage of unskilled building workers was sufficient to hold up urgent projects.

Table XII–5

PRODUCTION OF SELECTED BUILDING MATERIALS, 1969 AS AGAINST 1965

(Index)

	1965 (average)	1969	
		Average	4th quarter
Ytong products	100.0	139.8	165.8
Silicate blocks	100.0	51.4	56.2
Plate glass	100.0	81.8	84.0
Lavatory bowls	100.0	78.1	84.6
Wash basins	100.0	96.3	97.8
Kitchen sinks	100.0	77.3	68.2
Wall tiles	100.0	115.2	115.6
Cement	100.0	103.8	105.7
Bathtubs	100.0	85.2	106.2
Nails and screws	100.0	89.3	93.5

SOURCE: Based on Central Bureau of Statistics data.

Building costs went up in 1969 by 4 percent on an annual average and by 5.4 percent when the comparison is made for January levels (see Table XII–6). The acceleration of the uptrend in the course of the year was largely due to the higher price of imported materials, especially those made of metal. More was also paid for various local materials, in particular those required for the initial stages of construction, consumption of which rose sharply.[1]

The wage-labor input averaged about 6 percent higher than in 1968—a bigger increase than in any other economic sector. The rise in labor costs would have been even greater had it not been for the growing number of workers from the administered areas, part of whom replaced the more highly paid Jewish workers who left the building trades in 1968.

In some inputs local production may reach full capacity during 1970. But building materials and construction equipment can be purchased from abroad and their local manufacture expanded. The labor situation, which in the past had imposed the most serious constraint on the rapid expansion of building activity, now seems to be better here than in other sectors. The chief potential source of additional workers for the economy at present is the administered areas,

[1] The increase in prices was not uniform. That of portland cement held steady, but prices of cement products, for example, went up by 10.3 percent during the year.

Table XII–6

INCREASE IN RESIDENTIAL CONSTRUCTION INPUT PRICES, 1968–69

(percentages)

	Average 1969 as against average 1968			Change during 1969 (Jan. 1970 as against Jan. 1969)	
	Weight in index	Rise in price	Weight in total increase	Rise in price	Weight in total increase
1. Quarry materials, marble, and porcelain products	58.3	3.0	4.2	2.5	2.7
2. Cement and cement products, Ytong and silicate products	117.6	1.6	4.5	5.0	10.9
3. Iron and metal products	90.2	4.3	9.2	14.2	23.7
4. Wood and wood products	103.3	0.7	1.7	1.9	3.6
5. Sanitary and electrical installation materials	60.4	4.5	6.5	13.5	15.1
6. Wages	501.5	5.8	69.2	3.9	36.2
7. Transportation	17.1	1.8	0.7	2.2	0.7
8. Equipment and tools	29.8	4.7	3.3	10.7	5.9
9. Miscellaneous	21.8	1.2	0.6	2.9	1.2
10. Total	**100.0**	**4.2**	**100.0**	**5.4**	**100.0**
Items affected chiefly by higher prices abroad and for which domestic demand increased only slightly (*items* 3, 4, 5)			17.4		42.4

NOTE: The table is based on the index of residential building costs of the Central Bureau of Statistics, with the wage-labor item modified. In the original index, this item reflects changes in official wage rates as published by the Histadrut (General Federation of Labor). This table uses a new series based on employers' reports on their daily wage bill (including fringe benefits) for day laborers.

and the building trades are among the most convenient for the absorption of such workers.

As building activity expanded in the course of the year reviewed, there was some concern that supply shortages would develop, especially in residential construction. However, for the most part these fears proved to be unfounded. The supply of productive factors increased so rapidly that the 50 percent growth in residential building starts did not hold up completions. On the contrary, the average construction period of 11.5 months for private housing completed in 1969 was the shortest since 1961, and compares favorably with the 13.9 months in 1968, nearly 15 months during the recession years, and 13–14 months during the prerecession boom. The shortening of construction time accompanied an increase in the average area per building: whereas in 1961 it required 11 months to complete a building averaging 580 square meters, in 1969, when the average

size of the buildings was 895 square meters and building standards were much higher, average construction time was only 11.5 months.

In assessing the influence on the demand for productive factors of the Government's curbs on the construction of public buildings, the 12 percent increase in the value of such construction should be disregarded, since most of it can be attributed to projects begun in previous years. The relevant aggregate for this purpose is the area of new building starts, and in this there was a decline, though its magnitude has still not been finally calculated. However, it is tentatively estimated that in the absence of the restrictions the inventory of buildings in process in 1969 would have been larger by no more than about 1.5 percent, and total construction output by even less than that.

As regards the productive capacity of the sector, a comparison of 1969 with 1965 is instructive. In 1969 total construction output was only about 14 percent above the 1965 level (including defense construction), while the total value of new construction was approximately 5 percent lower than in 1965, and the number of employed and the output of various building materials had still not regained their 1965 level (see Tables XII–1 and XII–5).

An interesting development took place in employment in 1969. Employers' reports indicate that the number of wage earners increased by approximately 13 percent, or some 6,700 persons on an annual average. (Owing to the larger number of hours and days worked per employed, the rise in the labor input reached some 18 percent.) However, Israeli manpower survey data show an average annual increase of only about 4 percent (or some 2,700 workers). The discrepancy is explained by the influx of workers from the administered areas, who appear in the employers' reports but are not counted in the Israeli manpower surveys. And indeed the difference of about 4,000 in the two measurements accords with the average annual rise in employment from the administered areas from 2,000 in 1968 to 6,000 in 1969 as recorded by a third independent source.

Although the shifts cannot be measured precisely, it appears that there was no net increase in the number of Israeli building workers during the year (Israeli Arabs replaced Jews leaving the sector), and that nearly all of the additional employed came from the administered areas.

National Employment Service data indicate that the percentage of requests for building workers not satisfied because of a labor shortage rose from 16.5 percent in 1968 to 19.8 percent in 1969. The level peaked in the second quarter of 1969 at 28.4 percent, but turned downward in the second half of the year to stand at 11.6 percent in the last quarter (at the beginning of 1970 it climbed back to about 15 percent). These rates were higher than in the economy as a whole but lower than in the industrial sector, where the percentage of unfilled requests rose from 23.6 in 1968 to 35.3 in 1969, reaching 38.5 by year's end.

Information from the labor exchanges likewise reveals that over half the total

requests not met were for scaffolding erectors, a development consistent with the large weight of building starts within total construction activity. A geographical distribution shows that at the end of 1969 most of the unfilled requests were concentrated in the Tel Aviv metropolitan area and Netanya, and to a lesser extent in the Southern District. Interestingly enough, all requests for construction labor in Jerusalem were satisfied, a shortage of Israeli workers (including those from East Jerusalem) being made good by the hiring of workers from the administered areas.

Daily wage rates rose by an average of some 6 percent. Since the composition of the labor force underwent a drastic change with the entry of workers paid below-average wages (and probably also lower than those of workers who left the sector), the specific rise in wages was apparently more than 6 percent. Total earnings of building workers went up at an even faster rate—by 12 percent on a monthly average[1]—owing to the larger number of man-days worked per employed. This increase far exceeded that in other economic sectors, even though the elastic supply of workers from the administered areas had a moderating effect on wages, both because their relatively low pay pulled down the average and because they augmented the available supply of labor.

[1] According to employment and wage series based on data obtained directly from employers in the sector. National Insurance Institute data show an increase in average monthly earnings per employee of 9.5 percent.