

CHAPTER XII

CONSTRUCTION AND HOUSING

1. MAIN DEVELOPMENTS

AFTER TWO YEARS of appreciable gains, construction activity slowed down in 1970. The sector's output totalled some IL 3,250 million at current prices, a real increase of only about 7 percent, compared with an average annual advance of some 25 percent in 1968 and in 1969.

All of the 1970 increment was accounted for by a 32 percent rise in the value of residential construction put in place. By contrast, nonresidential construction fell off by some 12 percent, with an especially sharp decline being recorded in "other construction work", mainly for the transportation sector (the oil pipeline and roads). Defense construction and maintenance and repair work remained at about the level of 1969, after having doubled in the first two postwar years.

Data on the area of building started also point to a more sluggish expansion, the rise coming to 9 percent on an annual average, as compared with 30 percent in 1969. Data on total starts in the course of the year, which usually serve as an indicator of trends in the sector's development, show an **even more** pronounced change in 1970 (see Figure XII-1). Nonresidential building starts were lower than in 1969, continuing the downward trend begun that year. Whereas private housing starts began to slowly decline from their peak level of the third quarter of 1969, public residential starts continued upward at a strong rate until the third quarter of 1970, when they turned downward.

In 1970 there continued to be a big gap between residential starts and completions—44,000 units were begun and only 31,000 finished (see Table XII-2). Most of the 20 percent increase in starts was in public construction, where the figure was up 55 percent. In private building the average annual level was about the same as in 1969, with the curve sloping downward during the year.

The low number of completions made it difficult to provide sufficient housing for new immigrants and other subsidized groups. But the situation improved during the year as completions accelerated (see Figure XII-2).

Sales of new dwelling units to the public (excluding immigrants and other subsidized groups) reached their peak at the end of 1969 and then turned downward, continuing in that direction throughout 1970. This augmented the stock of unsold new units and dampened private residential starts, despite the much larger purchases of privately built homes by the Government and an increase in the

Table XII-1
INDICATORS OF CONSTRUCTION ACTIVITY, 1964-70^a

	1964	1965	1966	1967	1968	1969	1970	Percent annual increase or decrease (-)	
								1969	1970
Construction output (IL million, at 1969 prices)									
Residential	1,035	1,110	895	605	705	970	1,285	38	32
Nonresidential	990	1,060	955	840	1,020	1,170	1,025	15	-12
Total value of new civilian construction	2,025	2,170	1,850	1,445	1,725	2,140	2,310	24	8
Other ^b	200	220	250	300	460	580	600	26	3
Total output	2,225	2,390	2,100	1,745	2,185	2,720	2,910	24	7
Building starts (thousand m ²)									
Residential	3,750	3,090	2,060	1,650	2,395	3,610	4,245	51	18
Nonresidential	1,860	1,640	1,360	1,165	1,425	1,365	1,180	-4	-14
Total	5,610	4,730	3,420	2,815	3,820	4,975	5,425	30	9
Number of dwelling units started									
Private construction	21,080	18,900	13,910	9,750	15,830	22,970	23,190	45	1
Public construction	27,300	18,980	8,590	9,230	8,430	13,440	20,860	59	55
Total	48,380	37,880	22,500	18,980	24,260	36,410	44,050	50	21
Number of dwelling units completed									
Private	18,800	18,520	18,520	15,330	13,160	16,340	19,920	24	22
Public	19,180	19,900	19,060	12,570	9,440	9,140	11,030	-3	21
Total	37,980	38,420	37,580	27,900	22,600	25,480	30,950	13	21
Number of employed (annual average) ^c	87,000	92,000	75,600	63,000	75,000	83,000	90,000	11	8
Domestic sales of cement ('000 tons)	980	1,044	867	650	948	1,242	1,435	31	15
Purchases of construction equipment (IL million, at 1969 prices)	70	76	26	8	65	73	77	12	5

^a Data for 1970 are provisional; data for earlier years have been revised.

^b Partial estimate; consists of defense construction, maintenance, and repair work.

^c Including approximately 2,000 workers from the administered areas in 1968, 6,000 in 1969, and 12,000 in 1970 (annual averages).

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

Table XII-2
VALUE OF NEW CONSTRUCTION, BY TYPE, 1965-70^a
 (IL million, at 1969 prices)

	1965	1966	1967	1968	1969	1970	Percent annual increase or decrease (-)		Percentage distribution	
							1969	1970	Total output in 1970	Incremental output in 1970
Residential										
Public	395	295	173	167	242	355	45	47	12	60
Private	714	600	432	536	728	932	36	28	32	109
Total residential construction	1,109	895	605	703	970	1,287	38	33	44	169
Nonresidential										
Agriculture	35	37	29	36	35	44	-3	26	2	5
Industry, mining, quarrying	177	106	87	131	122	137	-7	12	5	8
Electric power	48	50	37	37	66	57	78	-14	2	-5
Water	69	69	66	50	32	31	-36	-3	1	-1
Transportation and communications	247	216	212	306	383	281	25	-27	10	-54
Commercial premises	71	60	36	31	24	24	-23	0	1	0
Hotels and other guest establishments	37	24	26	42	37	42	-12	14	1	3
Public institutions and services	374	390	347	385	470	407	22	-13	14	-34
Total nonresidential construction	1,058	952	840	1,018	1,169	1,023	15	-12	35	-78
Thereof:										
Buildings	623	568	455	525	603	584	15	-3	20	-10
Other construction work	436	385	386	494	569	439	15	-23	15	-69
Total value of new construction	2,168	1,848	1,446	1,722	2,142	2,310	24	8	79	89
Noninvestment output ^b	220	250	300	460	580	600	26	3	21	11
Grand total	2,388	2,098	1,746	2,182	2,722	2,910	25	7	100	100

NOTE: Discrepancies in totals are due to the rounding of individual items.

^a Data for 1970 are provisional; data for earlier years have been revised.

^b Defense construction, maintenance, and repair work.

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

amount of mortgage financing and grants it made available to new immigrants and others so as to enable them to buy housing in the open market.

The 12 percent drop in the value of nonresidential construction stemmed *inter alia* from the cutting back of development budget financing, the policy of regulating the erection of public buildings, and the completion of several large development projects.

The sagging growth of the sector's output was accompanied by a slower increase in factors of production and various inputs. Employment rose approximately 8 percent, about the same rate as the output gain. The number of Israeli workers barely changed; the some 7,000 additional workers taken on during the year came primarily from the administered areas, and at the end of 1970 they accounted for about 16,000 out of the 90,000 employed in the sector.

As in 1969, a shortage of skilled construction workers was felt in certain trades. National Employment Service data do not indicate an aggravation of the situation: on an annual average, 20 percent of the requests for labor were not filled (compared with 40 percent in industry), and over half of these unfilled requests were for scaffolding erectors and brick layers, who are required in the initial stages of construction. Nevertheless, it should be noted that the majority of those employed in the later stages are contract workers (i.e. self-employed), so that the National Employment Service data may not fully reflect the extent of the labor shortage in the building trades.

Purchases of construction equipment also seem to have expanded more slowly. The Government put a special line of credit at the disposal of contractors for the import of such equipment after their complaints about the labor shortage, but it was hardly utilized during the year. In general, 1970 witnessed a sharpening of competition for long-term construction jobs (earthwork), and the Housing Ministry had no difficulty in obtaining contractors for its stepped-up program of public construction starts.

Prices of construction inputs went up about 11 percent on an annual average and by 12 percent in the course of the year. The increase, due partly to the import surcharge levied in August and higher production costs in the building materials industry, embraced all inputs. Another factor making some items more expensive was the pressure of domestic demand accompanied by the exhaustion of all idle production capacity. In 1970, for the first time, input prices apparently went up about as fast as output prices; in the two preceding years both residential and nonresidential building prices had soared, while input prices remained relatively stable. It should be noted in this context that the price rises in this sector did not exceed the general advance of prices in the economy.

2. RESIDENTIAL CONSTRUCTION

The number of dwelling units started rose from 36,000 in 1969 to 44,000, while the number completed went up from 26,000 to 31,000. Thus there con-

Table XII-3
AREA OF BUILDING CONSTRUCTION STARTED AND COMPLETED, BY TYPE, 1962-70^a
(thousand sq. meters)

	Annual average 1962-65	1966	1967	1968	1969	1970	Percent increase or decrease (-) in 1970	
							As against 1969	As against average 1962-65
Starts								
Residential	3,322	2,057	1,650	2,396	3,611	4,246	17.6	27.8
Private	1,906	1,496	1,014	1,732	2,521	2,575	2.1	35.1
Public	1,416	561	636	664	1,090	1,671	53.3	18.0
Nonresidential	1,569	1,364	1,165	1,426	1,366	1,180	-13.6	-24.8
Total	4,891	3,421	2,815	3,822	4,977	5,426	9.0	10.9
Thereof:								
Private building	3,077	2,308	1,684	2,692	3,522	3,438	-2.4	11.7
Public building	1,814	1,113	1,131	1,130	1,455	1,988	36.6	9.6
Completions								
Residential	2,936	3,116	2,381	1,994	2,428	3,098	27.6	5.5
Private	1,651	1,888	1,598	1,375	1,770	2,236	26.3	35.4
Public	1,285	1,228	783	619	658	862	31.0	-32.9
Nonresidential	1,344	1,755	1,137	1,427	1,202	1,249	3.9	-7.1
Total	4,280	4,871	3,518	3,421	3,630	4,347	19.8	1.6
Thereof:								
Private building	2,671	3,058	2,352	2,359	2,617	3,139	19.9	17.5
Public building	1,609	1,813	1,166	1,062	1,013	1,208	19.2	-24.9

^a Data for 1970 are provisional; those for previous years have been revised.

SOURCE: Central Bureau of Statistics.

tinued to be a big gap between starts and completions (because of the long construction period), and this was the main factor explaining developments in residential construction during the year (see Table XII-1 and Figure XII-2).

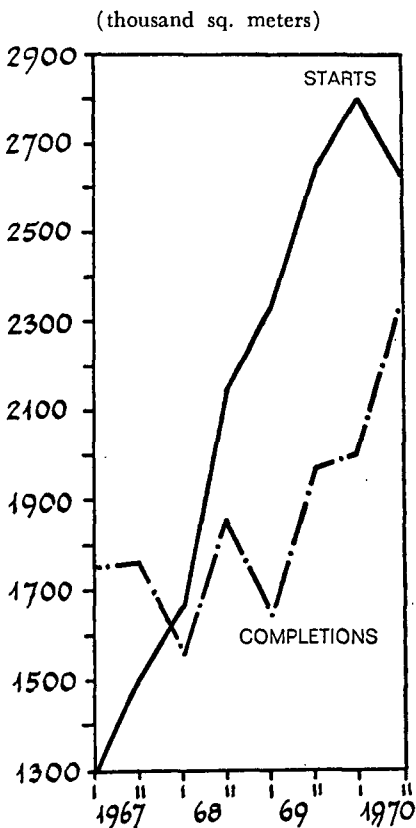
The estimated annual demand for additional dwelling units in 1967-70, when immigration averaged some 40,000 a year, ranged between 33,000 and 38,000.¹ Thus the picture emerging in 1970 (and to a certain extent in 1969) is a shortage of completed units and a surplus of dwellings under construction.

Annual new household formation (including that attributable to immigration) is the major determinant of demand for additional new housing. Economic factors, such as changes in the income level, in transfer receipts from abroad, and in prices, affect not so much the number of homes demanded as their size, building standards, and location (all of which are reflected in the price of the unit). The impact of these economic influences on the number of housing units is seen in the volume of advance and speculative purchases, the grouping or splitting of extended families into separate households, the extent to which dwellings are used for other purposes (offices, commercial premises, etc.), and the number of houses razed.

The factors augmenting demand grew more pronounced between 1968 and 1970. Immigration jumped from 18,000 in 1967 to 30,000 in 1968 and 37-38,000 in 1969 and 1970 respectively. The marriage rate of the Jewish population rose from 7.7 per thousand in 1967 to 8.6, 9.3, and 10.4 in the following three years, while the Jewish birth rate went up over this period from 21.5 per thousand in 1967 to 22.8, 23.4, and 24.2 respectively.

¹ This estimate is based on a long-range forecast prepared by the Ministry of Housing for the years 1970-74. Support for this estimate may be found in the data on housing completions during the past 10 years, which show an average of 33,000 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 a stock of empty units was accumulated in 1964-66 and gradually depleted in 1967-69.

Figure XII-1
TOTAL AREA OF BUILDING
CONSTRUCTION STARTED AND
COMPLETED, HALF-YEARLY,
1967-70



Personal remittances from abroad also soared between 1967 and 1970. Restitution payments from Germany and Austria went up from \$ 123 million in 1967 to \$ 143 million in 1968, \$ 138 million in 1969, and \$ 202 million in 1970. Other transfers, largely a reflection of the mounting immigration from affluent countries, jumped from \$ 87.5 million to \$ 131 million, \$ 156 million, and \$ 175 million over this four-year period.

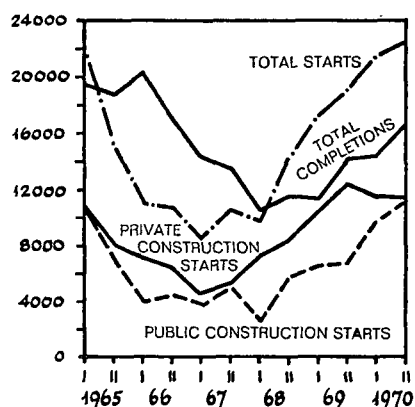
These data indicate a strong upswing in demand for additional dwellings between 1967 and 1968, a further rise in 1969, and perhaps a levelling-off in 1970. In the year reviewed the growth factors listed above were paced by restitution and other personal remittances from abroad, which, as already noted, had only a negligible effect on the number of units demanded, especially as they were partly offset by an appreciably slower increase in disposable income from domestic sources.

An excess of construction starts in 1964 and sagging demand in 1965-67 (mainly because of reduced immigration) led to a surplus of completed units in those years and depressed construction starts to a level far below that of current demand. The upsurge of demand after the Six Day War was accompanied by a lagged adjustment of supply, primarily in the case of public housing starts. Aggravating the situation was the usual problem posed by the lengthy construction period. At first it was possible to supply part of the demand from the stock accumulated during the slump years, but when this was exhausted the shortage was accentuated by the advancing of purchases, the deferment of sales of secondhand dwellings, and speculative purchases, including those by foreign investors. Stimulated by this excess demand, construction starts caught up with and overtook the current demand for finished homes during the second half of 1969 and the beginning of 1970, as evidenced by the growing inventory of unsold units in the hands of private builders despite higher sales to the Government (see Table XII-4). The downturn in private construction starts in 1970 was partly a rollback from the abnormally high level reached at the end of 1969 and beginning of 1970 and partly an adjustment to sagging sales.

A high level of purchases does not necessarily mean a high occupancy rate, which depends on the total supply from both current completions and the stock of vacant dwellings. To be sure, current completions in 1969 were higher than in 1968, when the curve was at its lowest, but in 1968 there was a stock of unsold units accumulated during the slump, and this was largely drawn down in

Figure XII-2

**RESIDENTIAL CONSTRUCTION,
HALF-YEARLY, 1965-70**



the course of the year. Thus it happened that in 1969, when demand continued to swell, the supply of finished units was smaller than in any other year during the past decade. The result was a more intensive utilization of the existing dwelling stock and brisk sales of units under construction or even in the planning stage. Only when completions began to pick up significantly during the second half of 1969 did the demand for new housing slacken. Most of the new dwellings had been sold in advance, but their completion enabled some of the buyers to put their old homes on the market.¹ One indicator of the growth of the supply of secondhand homes is the number offered for sale through the classified advertisement section of the daily press; this rose by some 20 percent in 1970, mostly in the second half of the year.

(a) *Private residential construction*

As may be seen from Table XII-4, sales in the private market peaked in the middle of 1969 and since then have been on the decline, while total sales, including those made directly to the Government and to persons receiving Government financing, reached their high point somewhat later—at the end of 1969 and beginning of 1970 (see Table XII-4). Nevertheless, the stock of unsold units in the hands of private builders expanded during this period. The data thus suggest an overoptimistic estimate on their part as to the continued growth of demand for new housing, despite the higher direct and indirect Government purchases in the private market.

Builders responded, as mentioned, by cutting down the volume of starts, with the result that additions to the unsold stock diminished. Toward the end of 1970 the number of unsold dwellings in the early stages of construction levelled off and even dropped somewhat. Preliminary figures for the first months of 1971 show that, as was to be expected, the downward movement in starts was reversed.

Two other developments should be noted. First, the area of housing construction begun in the large cities started to decline in the second half of 1969, as sales in the open market slackened and land and dwelling prices, primarily in the main population centers, soared (see the discussion of housing prices below). At the same time, private construction starts in suburban areas and later in the more distant towns were stepped up. Secondly, private builders increasingly switched to Government-sponsored work—both as contractors, where the Government alone initiates and finances the project, and in partnership with local authorities and Government companies. The bitter experience of the recession period apparently was not forgotten, and the large companies preferred the

¹ On the development of private residential construction starts and total completions in 1969-70, see Figure XII-3.

Table XII-4

PRIVATE RESIDENTIAL CONSTRUCTION, HALF-YEARLY, 1969-70

	Oct. 1968- April 1969	April- Oct. 1969	Oct. 1969- April 1970	April- Oct. 1970
	Number of units			
Starts ^a	7,000	9,600	10,700	9,400
Sales ^b	6,640	9,335	9,650	8,555
Direct and indirect to the Government ^c	690	2,480	4,285	4,425
On the open market ^d	5,950	6,855	5,365	4,130
Increase in unsold inventory	360	265	1,050	845
	Indexes			
Starts ^a	100	137	153	134
Sales ^b	100	141	145	129
Direct and indirect to the Government ^c	100	359	621	641
On the open market ^d	100	115	90	69
Increase in unsold inventory	100	74	292	235

NOTE: The data relate to the 34 largest local authorities, which account for some 90 percent of total private construction and for almost all private construction for the regular commercial market. The absolute figures presented here are subject to revision, and should be accepted with reservation.

^a Rounded figures.

^b From current completions and the stock of unsold private dwellings (according to the semi-annual surveys of the Central Bureau of Statistics).

^c Source: Ministry of Housing and data on Government loans granted to immigrants for purchases in the open market.

^d Total sales, less direct and indirect sales to the Government. To this estimate should be added sales by Housing and Development for Israel Ltd. (a Government company) and those under the Saving-for-Housing scheme. An examination of the figures, however, shows that while they might change the absolute data in the table, they would not greatly alter the general picture.

security of Government contracts as soon as the first signs appeared of starts outpacing current sales.¹

(b) *Public construction*

In contrast to private housing construction, which showed a levelling-off of the annual volume of starts and a downward sloping curve in the course of the year, public construction starts accelerated throughout most of 1970, reversing direction only in the final quarter. According to preliminary data, the down-trend carried over into the early part of 1971.

¹ As mentioned, in 1970 the growth of the stock of unsold units held by private builders slowed down and ultimately stopped. On the other hand, incomplete data show an increase in the number of unsold and uncommitted units held by the Ministry of Housing and its companies.

The upswing in public construction starts after the Six Day War came rather belatedly (see Figure XII-2). At first, this was due to the large number of vacant units accumulated during the years 1965-67. Because of the long gestation period of building construction, it was argued that the volume of starts should nevertheless be expanded immediately in order to meet the demand anticipated for finished housing a year and a half or two years later; but the Government, faced with sharply higher defense expenditures and a mounting deficit budget, decided against this. A large-scale increase in starts thus did not begin until 1969, when it became evident that homes for immigrants and other subsidized groups (young couples and occupants of substandard housing) were in short supply. However, because of the time required to step up the Government's building operations, which had been semidormant for several years, construction plans for 1969/70 were not fully realized. The supply gap was largely filled by private building, which is more flexible in adjusting to changing conditions, and total starts by the second half of 1969 (at an annual rate of some 40,000 units) appeared to be sufficient—though the shortage of finished housing for immigrants and other subsidized groups was not eliminated, and in fact even worsened. This lack of completed dwellings, which reached its peak at the beginning of 1970, led to an accelerated expansion of transitional facilities (immigrant absorption centers, residential *ulpanim*,¹ and rest homes), the provision of grants to relatives providing accommodation to newcomers, and even the deferring of the passage of newcomers to Israel from immigration centers abroad.

This situation forced the Government to take action. It nearly doubled its purchases of privately built dwellings, from some 4,600 units in 1969 to about 8,500 in 1970,² and stepped up the volume of starts in public housing estates, even though it was already at an adequate level in the second half of 1969.

A contributory factor to the rapid uptrend in starts in 1970 was the readiness of contractors and private construction companies to work for the Ministry of Housing as soon as they noted starts outpacing demand. This also solved for some contractors the problem of purchasing urban land, which became more scarce and expensive in the past two years.

The Housing Ministry concedes that the area of starts in 1970 may result in more finished units than the market may normally be able to absorb, but it maintained this high level in order to ease the pent-up demand pressure for housing by young couples, large families, and occupants of substandard housing, and to build up a reserve in the event of an unexpected rise in immigration. In this connection it should be noted that the Government can finance an in-

¹ These provide intensive Hebrew courses, primarily to new immigrants.

² Includes direct purchases of new and secondhand dwellings and those bought by immigrants in the open market with the help of Government mortgage financing. These purchases did not solve the immediate housing problem for immigrants in 1970, since most of the homes were not ready for occupancy that year.

ventory growth more easily than private contractors, especially in the case of units under construction. As already pointed out, preliminary data indicate a substantial increase in 1970 in the number of dwellings under construction in public housing projects.

However, preliminary data for the early part of 1971 show that public construction starts have turned downward since the final quarter of 1970. As it is not simple to determine the optimal number of residential starts, it would seem inadvisable to cut back the volume too severely on the basis of the present size of the unsold inventory of publicly sponsored dwellings. The long construction period would make it difficult to quickly adjust to unexpected changes in demand (as a result of immigration, for example).

It would be preferable to take advantage of a temporary lull in demand to speed up the solution of the housing problem for low-income groups, for the alternative of an excessive slash in new construction may prove very costly two or three years hence.

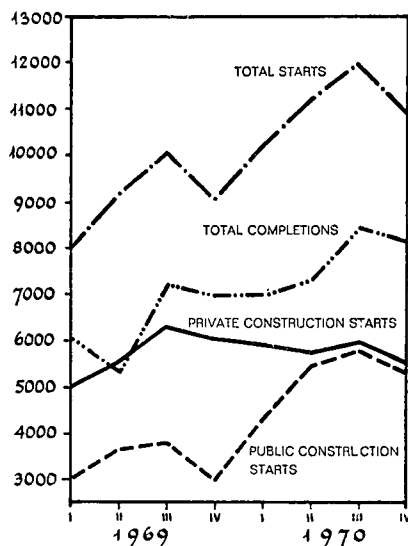
Permanent housing solutions for immigrants rose slightly, from 9,000 units in 1969 to 9,375 in 1970. There was a conspicuous increase from 1,970 to 3,140 in the number of mortgage loans granted to newcomers for the purchase of housing in the open market. New and secondhand homes bought by the Housing Ministry for immigrants went up from 2,120 to 2,230, while the number made available in Government housing estates dropped from 4,430 to 3,360.

The diverting of a larger number of immigrants to the private market is partly explained by the low level of completions in public projects, but apparently it also reflected a tendency by some of the newcomers (especially those from Western countries) to purchase homes in the open market with the aid of relatively easy Government loans.

(c) *Housing prices*

Housing prices jumped during 1970 by some 18 percent, after rising 15 percent in the previous year, but because of the time-lag inherent in the survey measurement of such prices, the increase in the growth rate can reasonably be attributed to 1969, or at the latest to early 1970. This seems to be borne out by the data in the preceding section indicating that sales to the public peaked during the second half of 1969 and the stock of unsold dwelling units began to rise at

Figure XII-3
RESIDENTIAL CONSTRUCTION,
QUARTERLY, 1969-70



the end of that year. In view of these developments, the rising price trend might have been expected to slow down during the year reviewed. From the standpoint of relative prices at least, this probably occurred, since a 10–15 percent hike in current dwelling prices would have been in line with the general price advance which came in the wake of the higher purchase and import taxes. This was in sharp contrast to the situation in the two preceding years, when dwelling prices soared while prices as a whole were relatively stable.

Even though construction costs rose about 12 percent in 1970, the continued uptrend in housing prices can still be attributed chiefly to demand, which in the year reviewed included *inter alia* purchases made either directly by the Government or with its assistance (the total volume of Government mortgage loans was upped in line with the higher housing prices).¹

According to survey data, the average price of a three-room unit whose sale was recorded at the Land Registry offices amounted at the beginning of 1971 to about IL 58,000 in Jerusalem, IL 54,000 in Tel Aviv, IL 43,000 in Haifa, and approximately IL 36,500 in such towns as Netanya, Ramat Gan, Beersheba, etc. These figures represent a cumulative rise of some 40 percent since the Six Day War. The high cost of homes and plots in the large cities probably explains the gradual shift since the second half of 1969 in the volume of private construction starts from the large cities to the suburbs and nearby towns.²

Another interesting development in 1970 was the jump in key money paid for rent-controlled dwellings, and this when the amendment of the Tenant Protection Law had been discussed in the Knesset during the past two years and a big increase in rents was anticipated. This may have been due to the extra demand pressure engendered in this market by Government key-money loans to immigrants (the number of such loans went up from 486 in 1969 to 650 in 1970).

3. NONRESIDENTIAL CONSTRUCTION³

Preliminary data show a 12 percent drop in the total value of construction for nonresidential purposes, and a slightly sharper decline (14 percent) in the volume of starts. While preliminary figures tend to be biased downward, the

¹ By contrast, in mortgage financing for the regular market both the total amount and the size of new loans were reduced. For a detailed discussion of mortgage credit see Chapter XVI, "Financial Institutions".

² In the Greater Tel Aviv area the peak periods of construction starts were as follows: in Tel Aviv itself the second quarter of 1969; Givatayim and Holon, the third quarter of 1969; Bat Yam and Ramat Gan, the first quarter of 1970; Petah Tikva, the second quarter of 1970; Rishon le-Zion, the third quarter of 1970; and in Rehovot the level in the final quarter of 1970 was far higher than in any other quarter in the last few years. In Jerusalem the curve peaked in the third quarter of 1969, and in Haifa in the third quarter of 1970.

³ See the detailed discussion in Chapter V, "Domestic Investment".

Table XII-5
AREA OF NONRESIDENTIAL BUILDING CONSTRUCTION, 1963-70
(thousand sq. meters)

	1963	1964	1965	1966	1967	1968	1969	1970 ^a
Construction started								
Agriculture and irrigation	177	194	108	176	196	131	143	164
Industry and crafts	542	720	437	288	233	332	441	414
Commercial and office buildings, hotels, etc.	214	315	330	246	176	219	185	144
Public buildings	456	628	768	654	560	744	597	458
Total	1,389	1,857	1,643	1,364	1,165	1,426	1,366	1,180
Construction completed								
Agriculture and irrigation	174	175	191	140	139	168	137	150
Industry and crafts	476	560	587	510	288	325	348	456
Commercial and office buildings, hotels, etc.	110	206	274	298	206	316	185	139
Public buildings	403	460	547	807	504	618	532	504
Total	1,163	1,401	1,599	1,755	1,137	1,427	1,202	1,249

^a Preliminary estimates. In previous years the preliminary figures generally turned out to be biased downward by more than 10 percent.
SOURCE: Central Bureau of Statistics.

final figures will doubtless confirm a downturn in 1970. The contraction was caused by a cutback in Government development budget financing, the administrative curbs on the erection of public buildings, and such random factors as the completion of the Eilat-Ashkelon oil pipeline and the Dead Sea Works expansion program.

The drop in the value of new construction was relatively steeper in "other construction work" than in building construction (see Table XII-2). The former includes, in addition to the large projects mentioned above, roadbuilding and the laying of water and sewer lines, which fell off because of the paring of development budgets. It should be noted, however, that these infrastructure activities in the administered areas are not included in the statistics presented here (although some are included in the figures on defense construction).

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 was banned of public buildings (except schools and kindergartens), as well as of business and office premises. The order was extended in April 1970, but the absolute ban on public buildings was lifted and a measure of discretionary power allowed; in

the wake of this change a larger number of building permits were issued in the course of the year.

At a time when building budgets are made available to various Government departments but new construction is either regulated or totally prohibited, most affected thereby are hospitals, clinics, and other public services such as telephone exchanges, whose expansion entails the erection of special structures.

By contrast, the curbs prove to be much less effective in the case of Government office premises, since the departments concerned can, and do, use their building budgets to purchase space in buildings put up by private contracting firms.

While the Government adopted a series of restrictive policy measures (including the tightening of development budget financing) out of macroeconomic considerations designed to damp down the excessive rate of economic activity, the building curbs were imposed primarily because it was feared that a shortage of productive factors would create bottlenecks in construction, thereby aggravating the shortage of immigrant housing and hampering defense projects in border areas.

However, it turned out that not only were production bottlenecks less severe than in other sectors,¹ but the construction industry revealed a high degree of adaptability to the buoyant demand for its output. From 1967 to the end of 1970 real output soared 67 percent, total starts for all purposes by 93 percent, and residential starts by 157 percent. Notwithstanding these impressive gains, the gestation period of building construction was substantially shortened in 1969 and 1970.²

With the easing of the pent-up demand for residential construction (and even some overbuilding as regards starts), and in the light of the estimated production capacity of the sector (preliminary data for the beginning of 1971 suggest a stiffening of competition for new jobs and a consequent fall in prices), the administrative curbs on construction would seem to have lost much of their rationale. It would seem preferable to regulate construction activity, along with economic activity in general, by means of the usual economic policy tools, such as monetary and fiscal measures, including the trimming of development budgets.

4. FACTORS OF PRODUCTION, INPUTS, AND PRICES

The slower growth of the sector's output—8 percent in 1970 as contrasted with 25 percent in each of the two preceding years—was accompanied by a

¹ Unfilled requests for workers placed through the labor exchanges in 1970 averaged 20 percent in construction and 41 percent in industry.

² The administrative order restricting construction does not appear to have contributed substantially to this development. In 1970 it is estimated to have shaved off some 3 percent at the most from total construction output.

more sluggish increase in productive factors and other inputs. Nonetheless, in some cases the local building materials industry was working at full capacity, causing some disruptions to building schedules. This was particularly true of cement, consumption of which rose from 650,000 tons in 1967 to 1,420,000 tons in 1970. During the recent slump obsolescent production facilities were shut down, and the installation and operation of new kilns will still take considerable time. Even so, it appears that except for temporary bottlenecks, which were relieved by increased imports and the use of domestic substitutes, the supply of primary productive factors and current inputs did not hold up building activity in 1970.

An analysis and comparison of employment figures for 1969 and 1970 have been made difficult by changes in the definitions and methods of measurement used in the two main sources of data—the Central Bureau of Statistics manpower surveys and the National Insurance Institute. A problem already cropped up in 1968, when the share of the administered areas in incremental construction employment began to mount rapidly (the manpower surveys cover only Israeli workers, while National Insurance data began to include workers from the administered areas only at the beginning of 1970). Similar difficulties are to

Table XII-6
INCREASE IN RESIDENTIAL CONSTRUCTION INPUT PRICES, 1969-70
(percentages)

	Average 1970 as against average 1969			Change during 1970 (Jan. 1971 as against Jan. 1970)	
	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	5.5	5.5	11.3	5.8
2. Cement and cement products, Ytong and silicate products	117.6	6.4	11.3	7.7	11.3
3. Iron and metal products	90.2	17.6	9.6	11.1	8.9
4. Wood and wood products	103.3	7.2	10.0	14.1	10.5
5. Sanitary and electrical installation materials	60.4	15.5	6.3	9.8	5.9
6. Wages ^a	501.5	12.1	50.7	13.7	50.9
7. Transportation	17.1	4.2	1.6	9.6	1.7
8. Equipment and tools	29.8	9.8	2.9	7.1	2.9
9. Miscellaneous	21.8	6.8	2.1	10.5	2.1
10. Total	1000.0	10.9	100.0	12.1	100.0

^a According to Central Bureau of Statistics data, based on employers' reports.
SOURCE: Central Bureau of Statistics and Bank of Israel calculations.

be found in the third source—direct reports of building contractors—which from the outset included workers from the areas. These reports show an increase of about 11 percent in the number of hired workers and man-days compared with 1969. But this source, too, may not have covered all the workers from the areas in 1969, so that an adjustment is liable to reduce their growth in 1970 to 8 percent—which matches the gain in the sector's output.

The above data relate only to hired labor. The number of self-employed generally rises faster than that of hired workers in years when there is a growth in completions, as there is a relatively higher proportion of contract labor in the finishing stages of construction. The picture for 1970, however, is not clear, and the relatively elastic supply of labor from the areas, as opposed to the limited supply of Israeli manpower, may have worked against such a development. As in the preceding year, almost all the additional building workers came from the administered areas—the available data show that their number went up on an annual average by about 12,000, as against some 6,000 during 1969, and at the end of 1970 they accounted for 16–17,000 of the 90,000 employed in the sector.

Labor costs per hired worker averaged 12.5 percent higher in the year reviewed. Again there were some workers who received more than the official tariff, but the amounts paid under the table were still low compared with the previous boom period. Contract workers, who are paid at a piece rate, earn much more for a day's labor than do hired workers.

Labor exchange data indicate that the proportion of unfilled requests to the total number of requests submitted for building workers held steady at around 20 percent—about the same as in the preceding year and far less than in industry. However, there was probably a greater shortage of skilled workers, particularly those employed in the finishing stages, who as a rule work on a contract basis and hence are not included in the labor exchange data.

Construction equipment did not seem to be in short supply. After a very large import in the two preceding years, the increase in equipment imports in 1970 was relatively moderate (see Table XII-1), despite the paring of customs duties. Moreover, a special line of credit made available to contractors on particularly easy terms for importing construction equipment was little used.

The year reviewed saw a further expansion of facilities for the production of ready-mixed cement and prefabricated construction. Changes in the production of other construction materials were uneven, ranging from a decline of 12.5 percent (for nails and wire products) to an increase of 24 percent (for Ytong products and sheet glass). The standard of building continued to improve, as evidenced by the substitution of Ytong for silicate blocks, the greater use of imported wall tiles at the expense of domestically produced, the substitution of aluminum for wood, and the like. Imports of direct current construction inputs rose by only \$ 2 million to stand at \$ 21 million (out of a total output value of

some IL 3,000 million); this indicates that, despite the necessity of obtaining certain items abroad, the local building materials industry was largely able to supply the buoyant demand.

In 1970 construction costs went up substantially for the first time since the last slump—by some 11 percent on an annual average and 12 percent in the course of the year—following very mild increases relative to the advance in output prices in the two preceding years. Nearly all inputs became dearer, even products and materials which escaped the customs and tax hikes (see Table XII-6).