## Chapter 9

## Construction and the Housing Market

- The volume of residential transactions was lower in 2016 than in the previous year, when it reached a particularly high level. Home prices increased over the course of 2016 by 6.3 percent.
- Demand for housing continued to increase, and was supported this year by the strength in the labor market, the low interest rates in the money and capital markets, and the "Buyer's Price" program, which offers eligible buyers a subsidy in the purchase of a home. At the same time, there were forces in the market putting downward pressure on demand: the increase in mortgage interest rates, and tax measures adopted in order to restrain investors.
- Rents increased by 1.4 percent in 2016-the lowest rate of increase in the past decade. Since the first half of the previous decade, rents have increased at a similar pace to income, which shows that overall, there has not been a worsening in housing affordability.
- The number of building starts increased in the past two years compared with the previous four years, and the level of buildings starts provides a response to current housing needs in the economy. The stock of new homes available for sale continued to increase relative to the increase in the population.
- The Planning Administration continued approving plans at a rapid pace, but this is still not noticeable in the volume of land sold by the Israel Land Authority.
- Construction industry product increased by 5.4 percent, more than overall GDP, but productivity (output per worker) continued to decline.
- Demand for homes increased among first-time homebuyers. The number of homes purchased by such buyers in 2016 is similar to the number in recent years, and in addition about 75,000 eligible buyers registered for lotteries within the "Buyer's Price" program.
- The Buyer’s Price program lowered home prices for buyers who won program lotteries, particularly in high-demand areas. It seems that many of those who won lotteries for home that were distant from their area of residence will prefer to rent them out, which may increase the supply of homes for rent in areas with lower demand.
- In order to prepare in advance for future demand, the Housing Cabinet decided to prepare a strategic plan for the years 2017-2040 addressing needs for 1.5 million homes. This important plan also includes National Outline Plan 38 and vacate-and-build projects, with the latter serving density targets better than the former.

Home prices increased by 6.3 percent in 2016, the ninth consecutive year of increases. However, rent prices increased by 1.4
percent, the lowest rate of increase in the past decade.

## 1. CURRENT DEVELOPMENTS

## a. Summary

Home prices increased by 6.3 percent in 2016, the ninth consecutive years of increases. However, rents increased by 1.4 percent, the lowest rate in the past decade. Since the first half of the previous decade, rents have increased at a rate similar to the gross wage per employee post, while home prices have increased at a much higher rate. The volume of residential transactions declined after increasing sharply in the previous year, but its level remains high. The decline is explained by the contraction in investor activity, since first-time home buyers carried out the same number of transactions in the open market ${ }^{1}$ and those upgrading their homes carried out slightly fewer transactions.

In terms of the supply chain, the initial stage of planning remained strong. The Planning Administration (the district committees) continued to issue construction approvals at a high rate, totaling about 103,000 housing units, slightly higher than the number in the previous year. However, the Israel Land Authority (ILA) did not expand land sales relative to previous years. The number of building permits (issued by the local committees) increased to 57,000 per year during the past two years, compared with an average of 46,000 between 2011 and 2014, and the large majority of permits was concentrated in the new city of Harish. ${ }^{2}$ The annual volume of building starts increased in the past two years to about 52,000 units on average, compared with an average of about 46,000 between 2011 and 2014. The duration of construction continued to lengthen, and building completions totaled about 45,000 units in 2016. The stock of new homes available for sale also increased in 2016, to about 31,000 units, but remained stable relative to the volume of sales.

The multi-property tax ${ }^{3}$ is expected to lower home prices to some extent, but to increase rental prices in parallel, because the tax lowers the yield for investors and encourages them to sell dwellings, which increases supply in the owned-home market but reduces supply in the rental market (assuming that the number of homes in the economy remains the same). The strength of the changes in each of the two markets depends on the elasticity of supply and demand.

## b. Demand and transactions

The increase in demand for housing was supported again this year by the strength in the labor market (see Table 9.1 and Chapter 5), the low interest rates in the money and capital markets, and the Buyer’s Price program-a program that offers eligible home buyers a subsidy on the purchase of a home. At the same time, there were forces in the market lowering demand: mortgage interest rates increased, investors were negatively

[^0]Table 9.1
The construction industry - selected data, 2001-16

impacted by the increase in the purchase tax imposed on them in June 2015, and the State decided to impose a tax on third homes or more ("multi-property tax"), which was put on the public agenda in August 2016 and came into effect at the beginning of 2017.

The volume of transactions in the housing market declined from 121,000 in 2015 to 111,000 in 2016, but it remains high compared to the past (Table 9.1 and Figure 9.1). A similar picture emerges from new home transactions. An examination of transactions by groups of purchases shows that investors' transactions declined to the level seen toward the end of 2011—such a low level was recorded before then only in 2007-mainly due to taxation measures meant to restrain them. In contrast, transactions by those upgrading their homes declined only slightly, and transactions by first-time home buyers remained stable (Figure $9.2^{4}$ ). While it could have been foreseen that first-time buyers would reduce the number of transactions in the open market and wait to win a Buyer's Price lottery, such a phenomenon has not been noticeable thus far in the housing market.

Figure 9.1
Annual Activity in the Residential Construction Field, 2000-16
(Thousands of units)


SOURCE: Based on Central Bureau of Statistics and Ministry of Construction and Housing.

4 The transaction data in Figure 9.2 are taken from the Carman (real estate price file) database, and cover about 80 percent of the transaction data appearing in Figure 9.1, which are taken from the Ministry of Construction and Housing.

Figure 9.2
Yearly Transactions by Purchaser Groups, 2003-16
(Thousands of units)


SOURCE: Based on Central Bureau of Statistics and Israel Tax Authority (Carman file).

Figure 9.2 shows that in recent years, the number of transactions carried out by first-time homebuyers totaled about 30,000-35,000 units per year. In 2016 as well, the number was similar, while there were an additional 75,000 registered for the Buyer's Price program. The price subsidy in the program is leading to increased demand, and a similar increase in supply is therefore necessary in order to prevent price increases in the open market.

## c. Supply

In recent years, the government has made significant efforts in the housing sphere, and a significant portion of them are focused on expanding supply by finding land for construction and by shortening the duration of planning and construction.

In general, planning can be divided into three stages. In the first stage, the ILA, the Ministry of Construction and Housing and private developers submit plans to the Planning Administration (the district committees) in order to obtain approvals. ${ }^{5}$ The ILA then sells State-owned land approved by the Planning Administration to the developers. ${ }^{6}$ In the third and final stage, the developers submit the plans to the

[^1]The subsidy granted by the Buyer's Price program increases demand, and supply must be increased accordingly in order to prevent an increase in prices in the open market.
local committees to obtain building permits from them. Once the permit is issued, construction can begin, which takes $2-2.5$ years on average.

As Table 9.3 and Figure 9.3 show, the total number of approvals issued by the district committees increased markedly since 2012, reaching 103,000 units in 20167, a total higher than the target of 100,000 units set by the government. Between 2010 and 2016, the committees approved about 65,000 units on average each year. ${ }^{8}$

Table 9.2
Building permits and households by district, 2010-16

|  | North | Haifa | Center | el Aviv | salem | South | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Number of permits issued by the district committees (thousands of units) |  |  |  |  |  |  |  |
| 2010 | 4.0 | 1.0 | 9.8 | 2.0 | 2.0 | 5.2 | 24.0 |
| 2011 | 7.7 | 7.8 | 6.9 | 1.9 | 6.2 | 2.0 | 32.5 |
| 2012 | 9.9 | 15.9 | 17.5 | 3.4 | 5.7 | 10.8 | 63.3 |
| 2013 | 19.1 | 10.0 | 17.8 | 7.2 | 5.6 | 12.8 | 72.5 |
| 2014 | 10.2 | 10.1 | 16.3 | 5.1 | 9.1 | 8.9 | 59.6 |
| 2015 | 10.5 | 11.2 | 20.0 | 25.2 | 11.7 | 20.5 | 99.0 |
| 2016 | 17.4 | 13.9 | 19.7 | 15.0 | 10.2 | 26.9 | 103.1 |
| Total 2010-16 | 78.7 | 69.9 | 108.0 | 59.7 | 50.5 | 87.1 | 454.0 |
| B. Distribution of permits and households by district (percent) |  |  |  |  |  |  |  |
| Approvals | 17.3 | 15.4 | 23.8 | 13.2 | 11.1 | 19.2 | 100.0 |
| Households, 2015 | 14.8 | 13.4 | 25.6 | 21.7 | 11.0 | 13.5 | 100.0 |

SOURCE: Based on Planning Administration and Central Bureau of Statistics.

The total number of approvals issued by the district committees increased markedly since 2012, but the increase has still not been reflected in the volume of land sold by the ILA, which is about 30,000 units per year since 2013.

The marked increase in the number of approvals has not yet been reflected in the volume of land sold by the ILA, which remained at about 30,000 units per year since $2013^{9}$, for two reasons. First, the approvals come with stipulations that involve, among other things, investment in infrastructure and the agreement of the local authorities, and sometimes also purification of the land or plans to consolidate and redivide parcels of land. Fulfilling the stipulations requires financing, coordination between

7 37,400 of which are planned through the National Planning and Building Committee for Priority Housing Areas (Hebrew acronym: Vatmal). The Vatmal was established in 2014 to identify land and rapidly increase supply. Its authority supersedes that of any other committee or plan with the exception of National Outline Plan 35. Additional information appears in Bank of Israel Annual Report for the Year 2014, Chapter 7A.

8 Table 9.2 also shows that in the Jerusalem and Tel Aviv district, a longer time is required to achieve the increase in approvals.

9 ILA sales reflect only some of the approvals issued by the Planning Administration, since Planning Administration approvals concern both State lands and private lands while the ILA sells only State lands. Yet, a basis is still formed for expecting that ILA sales will expand due to the increase in the number of approvals, since most of the approvals do concern State lands, and because the State can increase the supply of State land more than the supply of private land.
and managing the many entities involved in the process, and a timeframe of a few years. However, the ILA cannot market the land before the infrastructure has been developed. Second, even after the stipulations have been fulfilled, the ILA needs two years or more to prepare the marketing of the land-publishing tenders to contractors for the development of the surrounding area and evaluation of its costs, preparing the tender materials (documents that include the cost of development), publishing it, and choosing the winner. Therefore, it may

Figure 9.3
Plans Approved by the Planning Administration, Land Sold by the ILA, and Building Starts, 2010-16
(Thousands of units)


SOURCE: Based on Planning Administration, Israel Land Authority, and Central Bureau of Statistics. take a number of years for the quantity of approvals to be reflected in ILA sales, and the effect is actually not noticeable even during the six years that appear in Figure 9.3. ${ }^{10}$

Building permits issued by the local committees indicate the final stage in the planning process-the stage prior to the start of actual construction. The number of building permits increased by about 6 percent in 2016-further to the strong increase in the previous year-to a total of about 57,000 units, after stagnating around 46,000 units per year between 2011 and 2014 (Table 9.1 and Figure 9.1). In the past two years, the number of permits has therefore increased impressively relative to the number in the previous four years, which makes it possible to continue expanding the number of building starts. Most of the increase (about 80 percent) was concentrated in the Haifa region (including the new city of Harish) and in the Southern District, and not in the Central District. Even the eleven cities with which umbrella agreements have been signed did not, apparently, increase the number of permits (not shown). It is possible that some of the increase is a result of the "Buyer's Price" program, since the program is supposed to shorten the time necessary to obtain permits.

The planning stages and the construction stage last for years, and estimates of their duration have been outlined in the Bank of Israel Annual Reports for the years

[^2]The average duration necessary to create a home in Israel has not changed significantly in recent years.

The number of building completions is lower than expected according to the volume of building starts in previous years, and in recent years a significant gap has developed between the two figures.

2011 to 2014. The estimated overall duration of planning was an average of 11 years, and the estimated duration of construction was an average of 2 years. The government's efforts, and the fact that yearly quantitative targets have been set for the district committee stage, have formally shortened the duration necessary for granting approvals. However, since the approvals come with stipulations concerning the construction of infrastructure, and since that construction takes time and resources, it is unclear how much the total duration that this stage takes has been shortened (even though the approval itself may make it possible to accelerate the processes necessary to invest in the infrastructure).

As far as is known, the duration needed for the ILA to publish the tenders has lengthened. The duration necessary to obtain building permits from the local committees was an average of about 3 years in the reports for 2011 to 2014, and the umbrella agreements signed in the past two years with 11 local authorities have not significantly shortened it to this point. However, the duration of actual construction has been extended from 2 years to 2.5 years, but it should be noted that the rapid expansion of construction and the transition to more dense construction make this stage more complex. Overall, the average duration necessary to produce a dwelling in Israel has not changed significantly relative to the previous estimate, which illustrates the rigidity of supply in the housing market.

Actual construction begins a few months after receipt of the permit. ${ }^{11}$ The number of building starts was similar in 2016 to the number in 2015, a year in which it increased substantially-12.3 percent (Table 9.1 and Figure 9.1). ${ }^{12}$ In the past two years, the yearly flow of building starts increased to about 52,000 per year on average, while it was an average of about 46,000 per year between 2011 and 2014.

The number of building completions increased in 2015, to about 45,000 units (Table 9.1 and Figure 9.1). The number of completions is still lower than expected according to the volume of starts in previous years, and a significant gap has developed in recent years between the two figures-the estimate of the gap reaches about 6000 units, given that construction lasts for 2.5 years.

Assuming that the data in our possession properly reflects the situation, it is difficult to identify the reason for this gap. The gap may be a result of restrictions that extend the construction process (supply side) or demand restrictions that delay its completion. Examples of the supply side restrictions include: (a) limited production capacity in the construction industry. This may be a result of a lack of workers, a possibility which is supported by the data on job vacancy. However, it should be noted that this limitation in the construction industry is not much different than the limitation in other industries (see Chapter 5). In addition, it may be a result of financing restrictions,

[^3]but had such a restriction existed, the banks would not be financing new building starts before the contracts complete existing construction and deliver the dwellings to the purchasers-in other words, as long as the sales law guarantee on dwellings under construction still imposes a lien on collateral; and (b) delays that are not dependent on the developer, such as in the development of infrastructure for the use of residents surrounding the parcel or delays in obtaining a building completion approval from the local committee.

Figure 9.4
New Homes Available for Sale, the Ratio Between Them and the Population, and Stock Turnover, 2009-16


SOURCE: Based on Central Bureau of Statistics. Examples of demand side limitations include the possibility that developers become investors, who are in no rush to complete the construction of the dwellings and benefit from the continued increase in home prices.

The stock of new homes that have not been sold, including dwellings under construction, continued to increase in 2016, to about 31,000 units, compared with about 15,000 units at the beginning of 2011 (Table 9.1 and Figure 9.4). ${ }^{13}$ The ratio between this stock and the population shows a similar upward trend, which supports the argument that some of the developers behave as investors. Comparing the stock to the volume of sales in the past year (stock turnover) shows a horizontal line that ranges around the stock for one year and does not show a trend. This result can be interpreted thus: from the point of view of the developers, the stock increases in accordance with the increase in demand that they see, so their average pace of sales (approximately one year) does not change. A similar situation-a lack of trend over time-is seen when examining the stock cycle by district and according to 20 cities, although the level of cyclicality is different (the result is not shown). This picture is

[^4]The stock of new homes that have not yet been sold, including dwellings under construction, continued to increase this year, to about 31,000 units. This is consistent with the hypothesis that developers expect that demand and prices will remain high.

Figure 9.5
Output per Worker in the Construction Industry, the Business Sector, and the Total Economy, 2006-16


SOURCE: Based on Central Bureau of Statistics.

Figure 9.6
Increase in the Number of Workers in the Construction Industry, in the Business Sector, and in the Total Economy, 2006-16


SOURCE: Based on Central Bureau of Statistics.

Output per worker (labor productivity) in the construction industry has contracted since 2012, while it has continued to increase in the economy.
consistent with the hypothesis that the developers expect that demand and prices will remain high, and they are holding stock in order to supply the demand at a fixed rate. However, the accumulation of stock involves risks to the developers, since demand reacts to economic changes much more rapidly than supply, and if demand declines compared with expectations, it could leave the developers with a high amount of stock.

The stock of homes under active construction continues to show the upward trend of previous years, and has reached 112,000 units. The upward trend is a result of the increase in building starts and the lag in completions. The industry's product increased by 5.4 percent in 2016, while the increase was less than 2 percent in the two previous years (less than the growth of overall GDP). Output per worker (labor productivity) in the construction industry contracted since 2012, as shown by Figure 9.5. In parallel, the number of workers in the industry increased (mainly non-Israelis) at a rate higher than the rate in the business sector and higher than the rate in the entire economy (Figure 9.6). According to the bilateral agreements signed regarding 2017, 6,000 workers from China will enter the industry, as well as 6 companies (five from China and one from Portugal), each of which will bring in 1,000 workers.

## d. Long-term supply: The strategic housing plan prepared by the government

The long and complex planning process leads to rigidity in supply, and reflects the necessity to balance the need for housing with the desire to ensure quality of life and employment in both the newly built neighborhoods and localities and their older neighbors. Therefore, the regulation that comes with construction planning and execution includes demands to establish the appropriate infrastructure and to maintain open areas, nature, agriculture, vistas and historical sites. Regulation also sets out conditions for the handling of polluted ground, public services (such as schools and leisure facilities), and public areas in the residential surroundings. This combination requires coordination between many entities and authorities, dealing with opposition, and financing. The lack of available land in high-demand regions (Tel Aviv, Jerusalem and the Center) and the resulting high density emphasize the importance inherent in quality planning. Planning also deals with the establishment of the infrastructure that must accompany the construction of dwellings, which acts to moderate the opposition of the local authorities to increasing the number of residential units. Since building infrastructure requires resources, the budget in the receiving authorities must be balanced.

Since the planning process takes more than a decade, the optimal response for housing needs and their accompanying formulation requires the development of a strategic approach to planning, inter alia so that future demand will be met rapidly, while ensuring quality planning and without unnecessary shocks to home process. As such, in February 2017, the Housing Cabinet decided to formulate a strategic housing plan ${ }^{14}$ in order to provide a response to expected needs between 2017 and 2040. This is a welcome process, and if the government brings it to fruition efficiently and diligently, it will considerably increase flexibility in the housing construction market. A large planning stock may even lower the surplus demand in the present, since it will signal that the lack of residential construction is not expected to persist over time, and will therefore moderate investment purchases.

The necessary volume of planning is derived first of all from the expected increase in the population. The population in Israel is increasing more rapidly than in other advanced economies. In the past decade, it increased by an average of 1.9 percent per year (Table 9.1) while the average in the other OECD countries was 0.6 percent. ${ }^{15}$ This is a result of high birthrates, high life expectancy, and a positive migration balance. Table 9.3 shows the housing needs and the planning targets in the plan. Housing needs are based on the forecast compiled by the National Economic Council regarding population growth to $2040^{16}$, and total 1.5 million dwellings. The planning targets are much higher, and total 2.6 million units, in order to compensate for planning process

[^5]Table 9.3
The strategic plan for the housing market (thousands of units per year), 2017 to $2040^{\text {a }}$

|  | 2017-2020 | 2021-2025 | 2026-2030 | 2031-2035 | 2036-2040 | Total | Distribution of targets by region | Distribution of households by region, 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Housing |  |  |  |  |  |  |  |  |
| consumers | 52 | 55 | 61 | 65 | 67 | 1,500 |  |  |
| Planning |  |  |  |  |  |  |  |  |
| targets | 104 | 104 | 105 | 112 | 118 | 2,600 |  |  |
| of which: in district |  |  |  |  |  |  |  |  |
| North | 18 (10\%) | 18.5 (15\%) | 17.6 (20\%) | 18.8 | 18.8 | 440 | 16.9 | 14.3 |
| Haifa | 13 (20\%) | 11.9 (30\%) | 12.5 (40\%) | 14.1 | 14.1 | 315 | 12.1 | 13 |
| Center | 27.5 (20\%) | 25.5 (30\%) | 24.5 (40\%) | 27.3 | 27.3 | 633 | 24.3 | 24.7 |
| Tel Aviv | 15.5 (40\%) | 16.4 (50\%) | 17.7 (60\%) | 20.4 | 20.4 | 436 | 16.8 | 21 |
| Jerusalem | 11.5 (12\%) | 12.3 (20\%) | 12.0 (30\%) | 13 | 13 | 297 | 11.4 | 10.7 |
| South | 18.5 (8\%) | 19.4 (12\%) | 22.2 (17\%) | 21.8 | 21.8 | 500 | 19.2 | 13.1 |

${ }^{a}$ The numbers in parentheses indicate the share of urban renewal in the program's targets.
SOURCE: Based on Housing Cabinet Decision DR 131, February 2017, and Central Bureau of Statistics.

The strategic plan for adding dwellings includes urban renewal. Relative to vacate-andbuild, NOP 38 generates little addition in the long term.
underperformance (meaning for the possibility that some of the planning targets are not achieved) and for the lag resulting from the long duration of the approval and infrastructure construction processes, and in order to maintain a planning stock and to compensate for shortages that have developed in the past.

The strategic plan also divides the planning targets by region. The two left columns in the Table show how the targets are distributed by region and how households are currently distributed by region, and show that in the Northern and Southern Districts, construction will increase considerably, while in Tel Aviv it will increase much more moderately. This distribution will require the development, in both new and expanding localities, of centers of employment and cultural and leisure facilities.

The plan includes a significant increase through urban renewal (the rate of which in each region appears in parentheses in the Table). In Tel Aviv, this component accounts for more than half of the overall addition, and the realization of the plan will therefore increase the population density in this region-which will also require adjusting the infrastructure to the greater density (for instance by building a mass transit system). The urban renewal component includes National Outline Plan (NOP) 38, in connection with which it is worth noting that in the short term, it makes it possible to spur the approvals and construction processes, but in the long term it generates only a relatively small increase in the number of units. ${ }^{17}$

[^6]
## e. Prices

Home prices increased in 2016 for the ninth consecutive year, increasing by 6.3 percent during the year after increasing by 7.9 percent in 2015. In contrast, rents increased by 1.4 percent in 2016, the lowest rate of increase in more than a decade.

Home ownership reflects both the need for a dwelling with certainty and convenience and demand for investment properties. Therefore, home prices reflect both motives. In contrast, rents reflect only the need for a dwelling. Figure 9.7 shows rental prices and the average gross income per employee post between

Figure 9.7
Home Prices, Rents and Income (2003-16)


SOURCE: Based on Central Bureau of Statistics. 2003 and 2016. Throughout this period, rents increased in accordance with the increase in income, and in recent years, both have increased at a similar average pace. This means that on the national (rather than regional) level, there was no worsening in housing affordability-housing expenses as a share of income did not increase. ${ }^{18}$ This situation, and with it the marked gap between the increase in home prices and the increase in rents, show that there are no signs of a shortage in dwellings, and that the demand pressures resulting from the basic need for housing are less than the pressures derived from investment motives or the desire to own a home.

Since dwellings are homes for households, a complete analysis cannot suffice with the development of the average wage per employee post, but needs to also relate to the development of household income. Such an analysis shows that during the reviewed period, household income increased much more than the average gross wage per employee post, which means that housing affordability improved greatly during that period.

[^7]Demand pressures resulting from the basic need for housing are less than the pressures derived from investment motives or the desire to own a home.

## 2. THE BUYER'S PRICE PROGRAM ${ }^{19}$

## a. Background

The Buyer's Price program is acting to lower home prices for eligible first-time buyers-young couples and singles aged 35 or more who win a lottery.

The "Buyer’s Price New Format" program initiated by the government in 2015 is working to lower home prices for eligible first-time homebuyers-young couples and singles aged 35 or more who win a lottery. ${ }^{20}$ As part of the program, the State sells land for high-density construction at a discount, and the discount per dwelling is the equivalent, on average, of a NIS 120,000 discount from the assessed price of the land (before VAT). If the land is less expensive than this amount, the State covers the different to NIS 120,000 through a grant to the buyer and through a subsidy to the contractor for development expenses. ${ }^{21}$

The tender booklet presents a given maximum price per square meter. The final price in the tender is generally lower than the maximum price due to competition between the contractors. In the tender for contractors, the winner is the contractor who offers the lowest final price per residential square meter built, and that is the maximum buyer's price. The terms of the program also encourage performance contractors to submit bids, since the winning contractors do not need to look for buyers. At the current stage, the program is not increasing the supply, but is marketing the existing supply of land for high-density construction to eligible buyers.

A few changes were made during the process of outlining and executing the plan. First, the initial intention to restrict marketing to land for which the price would be only up to a certain amount was not implemented. Thus, it became possible to market land in expensive areas as well. Second, it was decided that the winning contractor would be permitted to try to increase the number of dwellings through a "Sheves addition" ${ }^{22}$, a process that expands the potential supply but extends the time necessary to conduct the lotteries for buyers and to obtain building permits. Third, the number of rooms per unit was set out, and not just its meterage. This was in response to cases where contractors lowered the number of rooms in a given area (since according to the rules, the amount paid to the contractor was determined only by the area of the dwelling). Fourth, the forecast construction period-the time elapsed between the date on which the winning contractor was chosen and the building completion-was shortened from 46 months to 34 months. Fifth, the buyer's payment schedule was determined. The original program did not set a schedule for payments, and some of the buyers had to repay a full mortgage and also pay rent until the dwelling was delivered. Sixth, winners who registered by the end of August 2016 ("Series A")

[^8]received priority rights over winners who registered after that date ("Series B"). And seventh, the State gave the banks a guarantee so that they would provide buyers with Sales Law guarantees.

## b. Tenders for contractors

In tenders that were closed ${ }^{23}$ in 2015-16, the government offered 29,600 units ${ }^{24}$, of which 19,500 units were sold to contractors. The average success rate in 2015-16 was therefore about 66 percent, compared with 72 percent between 2000 and 2013. ${ }^{25}$

Figure 9.8
"Buyer's Price" Program: Number of Units Offered and Sold in Various Cities,
2015-16 (Thousands of units)


SOURCE: Based on Ministry of Construction and Housing

Figure 9.8 shows the projects offered to contractors, compared with those sold, in terms of residential units and by city (the cities are ordered geographically from north to south). Projects were not offered in cities in the Tel Aviv District. In Arad, Nazareth and Tiberias, no units were sold. It is interesting to see that even in Rishon

[^9]LeZion and Rosh HaAyin, cities in the Central District, there was only partial success. If we ignore the low success rates in Bet Shemesh, the average success rates in the Central and Haifa Districts (more than 90 percent) are higher than in the Northern (60 percent) and Southern (67 percent) Districts. Similar results were obtained regarding the average number of bidders in the tender (not shown): 6 in the Jerusalem and Central Districts, compared with 2 in the North and 3 in the South.

## Figure 9.9

The Ratio Between the Final Price and the Maximum Price in the Tender, by Number of Bidders


The benefit per residential square meter in the program is equal to the gap between the market price and closing price for a similar dwelling, and is dependent mainly on the value of the land offered by the government. This gap can be divided into two parts: the gap between the market price and the maximum price in the tender booklet, and the gap between the closing price and the maximum price. This component is derived from competition between the contractors over the minimum price, which is also dependent, inter alia, on the value of the land. Figure 9.9 shows that the price declines as the number of bidders in the tender increases (the correlation is -0.83 ). In the Jerusalem, Central and Haifa Districts, the benefit from competition therefore reached a higher rate than in the Northern or Southern Districts.

In order to show the total benefit, Figure 9.10 compares the final price per square meter built in the Buyer’s Price program (the blue squares) with the average price

Figure 9.10
Closing Price in "Buyer's Price" Compared with Prices on the Madlan Site, by City


SOURCE: Based on Ministry of Construction and Housing.
per square meter in transactions made in the open market ${ }^{26}$ in the second half of $2016^{27}$ (the green diamonds), by city. It shows that in broad areas across the country, from Be'er Sheva to Karmiel, prices in the "Buyer's Price" program are similar. To illustrate, the price per square meter in Karmiel is similar to the price in Haifa, and the price in Ma’alot-Tarshiha is similar to the price in Lod. In general, the Figure shows that assuming that the same gap between the quality of the dwellings sold in the program and the quality of those sold on the open market exists in all regions of the country, the gap between the market price and the program price is larger in high-demand areas. In other words, the benefit to buyers is generally larger the more expensive the land is. ${ }^{28}$

## c. Tenders for residents (lotteries)

By the end of 2016, about 74,800 eligible buyers had registered with the Buyer's Price program, and lotteries were held for 6,394 units (of which 1,578 were for residents

[^10]The gap between the market price of a dwelling and its price in the program is larger in high-demand areas. In other words, the benefit for winners is generally greater the more expensive the land is.
of that locality) in 20 cities. ${ }^{29}$ About half of the units in the lotteries have not yet received final building permits, so at least in those cases, no sales contract has been signed. The high number of registrants, and the low number of lotteries thus far, have led to a decision to distinguish between those who registered prior to the end of august 2016 (Series A), a group consisting of about 63,800 people, and those who registered after that date (Series B). The former will participate in lotteries in the coming years, and the latter will join lotteries only in the future. The low number of lotteries is a result of the lack of land sold and the time required to obtain building permits.

Figure 9.11
Rate of Lottery Winners ${ }^{\text {a }}$, by City


The high number of registrants and the low number of lotteries have also led to low winning rates-an average of 3.1 percent per lottery by post-facto measurement (Figure 9.11). The rate in the Jerusalem and Central Districts (other than Lod) was generally below 2 percent, and in the South (other than Sederot), the Krayot area and the North, it was generally between 3 and 7 percent. ${ }^{30}$

[^11]Figure 9.12 shows the winners of the lotteries by their current region of residence on the horizontal scale, and the region in which they won (before those who waived their win) on the vertical scale. About half of the winners won dwellings in their region of residence, and that number was even higher in the Haifa and Southern Districts. This is because residents of the region receive significant preference in the tenders. However, others won dwellings far from their current residence. For instance, winners living in the Tel Aviv, Central and Jerusalem Districts won dwellings in the North, South and Haifa Districts. It is reasonable to assume that some of these winners will not live in their winning Districts and that this is also true to some extent regarding winners who won in a different city than the one in which they live but in the same District. ${ }^{31}$ These winners will become landlords in the winning regions and will live in a different locality. ${ }^{32}$ Moreover, if the program increases the number of dwellings available for rental in the periphery, it will apparently lower rent prices in those regions to below what buyers are expecting.

Figure 9.12
Distribution of Lottery Winners by Residential District and Winning District ${ }^{\text {a }}$

${ }^{\text {a }}$ The columns and the numbers above them represent the number of housing units. SOURCE: Based on Ministry of Construction and Housing

[^12]The rate of winning a single lottery is 3.1 percent. In the Jerusalem and central regions, it is lower than 2 percent. In the south, the Krayot area and the north, it ranges between 3 and 7 percent.

About half of winners won dwellings in their area of residence, partly due to the preference given to area residents.

However, others won dwellings far from their area of residence, and it is reasonable to assume that some of them will not live in those dwellings and will become landlords.

Thousands of winners waived their win, even in high-demand areas. ${ }^{33}$ The waiver still allows the eligible buyer to participate in future lotteries, since it is permitted to waive a win twice. ${ }^{34}$ The possible reasons for a waiver include the requirement to participate in at least one lottery conducted in 2016 in order to remain registered in Series A; winning in a region different than the region of residence; winning without the ability to finance the purchase; or winning a dwelling that is not suitable to the buyer's needs-for instance a dwelling that is too large and therefore too expensive, a dwelling with a large garden or balcony; or a dwelling with a small number of rooms relative to its meterage. Some of the lack of suitability is a result of the fact that the tenders were written in terms of price per square meter, so it pays for contractors to build the dwellings at the lowest cost possible. ${ }^{35}$

[^13]CHAPTER 9: CONSTRUCTION AND THE HOUSING MARKET


[^0]:    1 Meaning not as part of the Buyer's Price program.
    2 The district committees issue construction approvals, and the local committees issue building permits.
    3 The tax came into effect at the beginning of 2017, and is imposed on investors who own three homes or more, from the third home onward. At the time of this writing, the Supreme Court is discussing appeals against the tax.

[^1]:    5 The ILA and the Ministry of Construction and Housing submit plans if they involve State-owned land, and private developers submit plans when they involved privately-owned land.
    6 The terms in our discussion describe the essence of the process, and are not necessarily consistent with the terms in the Planning and Construction Law.

[^2]:    ${ }^{10}$ We do not have a long series of approvals issued by the Planning Administration each year, so it is not possible to examine what the multi-year correlation is between the approvals and ILA sales.

[^3]:    ${ }^{11}$ We conducted a regression where the dependent variable is the number of starts and the explanatory variable is the number of permits, and we found that two-thirds of construction starts within 1-5 months after the permit is issued.
    ${ }^{12}$ The most recent data on building starts indicate a slight decline, but the data are generally biased downward and are then revised upward. It is therefore possible that the annual figure after revision will not indicate a decline compared with the previous year.

[^4]:    ${ }^{13}$ The series of data starts only in 2009, the year in which the Central Bureau of Statistics began gathering data on construction referred to as "public initiated". Alonger series exists regarding construction referred to as "by private initiation". However, due to the problematic nature of distinguishing between the two definitions, it was decided that from the second quarter of 2016 onward, one overall figurewhich does not distinguish between the two cases-would be published.

[^5]:    14 This decision is also based on the government decision of June 28, 2015.
    ${ }^{15}$ Changes in the composition of households, for instance due to divorce or singlehood, also create changes in residential needs.
    ${ }^{16}$ This forecast also takes the age structure into account. See National Economic Council (2016), "Future Housing Needs in Israel, 2016-2040".

[^6]:    17 See the Bank of Israel Annual Report for 2015, Chapter 9.

[^7]:    18 An analysis of housing affordability relative to household income taken from the Expenditure Surveys for 2004-2012 shows similar results. See Bank of Israel (2014), "Housing Affordability: Home Prices and Rents Across Districts in Israel, 2004-12", Recent Economic Developments, 137.

[^8]:    ${ }^{19}$ The numbers presented in this section are based on data obtained from the Ministry of Construction and Housing in mid-January 2017.
    ${ }^{20}$ According to the Housing Cabinet decision of July 132015 (HC/23), the "Buyer's Price New Format" program was created as part of "the government's activities to solve the housing crisis, implement government policy regarding population distribution, strengthen periphery localities, and lower the pressure of demand for dwellings in high-demand areas",
    ${ }^{21}$ For more information, see the Bank of Israel Annual Report for 2015, Chapter 9.
    ${ }^{22}$ This allows the contractor to add up to 30 percent of the number of dwellings in the given total area.

[^9]:    ${ }^{23}$ A tender is considered closed if the period in which the developers or contractors are permitted to submit bids has ended. The data do not include open tenders-those in which the submission of bids began and has not ended in 2016.
    ${ }^{24}$ In some of the plots offered by the government, dwellings were offered for sale in the "open" market. The government offered such plots in Tiberias, Bet Shemesh, Rishon LeZion, Be’er Sheva, Sederot and Ofakim. However, in Tiberias, no developers submitted bids.
    ${ }^{25}$ The lack of success in "Buyer's Price" was affected by a lack of success in Bet Shemesh. We do not have parallel data on outlier cities for 2000-13.

[^10]:    ${ }^{26}$ According to the Madlan website. The data were collected on February 7, 2017.
    27 June-November 2016.
    ${ }^{28}$ The Madlan site contains all transactions (new and second-hand dwellings), while Buyer's Price includes only new dwellings. Despite this, the comparison is relevant because we made a uniform examination of all cities.

[^11]:    ${ }^{29}$ During this period, 747 people won lotteries in the "Target Price" program-a government program that also includes those upgrading their home-in Rosh HaAyin.
    ${ }^{30}$ The rate is lower, among other things, because the Ministry of Construction and Housing is encouraging eligible buyers to register for the lotteries. The Ministry required eligible buyers to participate in at least one of the lotteries held in 2016 in order to remain registered in Series A. In addition, the Ministry incentivized them to register for 75 percent of the lotteries in Series A, by granting them preference in the terms of the Series B lotteries.

[^12]:    ${ }^{31}$ For instance, a resident of Be'er Sheva who won a dwelling in Sederot (both in the Southern District), and a Hadera resident who won a dwelling in Kiryat Bialik (both in the Haifa region).
    ${ }^{32}$ In principle, this may encourage population dispersal, but for that purpose, it is also necessary to add places of proper employment and accompanying infrastructure in areas such as education, culture and leisure.

[^13]:    33 There are no orderly data on waivers, but it is know that the number is very high.
    ${ }^{34}$ It is permitted to waive a win twice, and to enter a tender one more time. A third waiver prevents the eligible buyer from participating in lotteries intended for Series A
    ${ }^{35}$ The lack of suitability may also have to do with the procedure for selecting dwellings. The winners choose from among dwellings in the project in order of their win. The first winner chooses first, the second chooses second, and so forth. The last winners therefore receive the dwellings that remain in the project, and they pay the same basic cost per square meter even if they prefer a different dwelling.

