

## **POLICY PAPER SERIES**

### **THE ISRAELI HOUSING MARKET**

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# The Israeli Housing Market

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Noam Gruber\*

## *Abstract*

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*Israeli housing prices have risen precipitously in recent years. The rising prices are due both to increased demand – driven mainly by low interest rates and preferential tax treatment – and to rigid supply, rooted in bureaucratic complications of the construction process, an inherent conflict of interest at the local level, and a high prevalence of condominium apartment living in Israel, which poses an obstacle to urban renewal. In the short term, in order to reduce demand, it is recommended that rental income be taxed in a manner similar to capital market income. In the long term, in order to foster greater housing-supply flexibility and reduce the housing market's high volatility, it is suggested that construction-related planning, approval and supervisory processes be simplified and decentralized, that income from development and the responsibility for laying the infrastructure necessary for that development be transferred to local authorities, and that the sale of apartment buildings based on tenant supermajority be authorized as an alternative to National Outline Plan 38 (known in Hebrew as TAMA 38) and vacate-and-build (known as pinui-binui) programs. It would also be desirable – so long as there is no negative impact on the environment or on the construction of future national infrastructure – to transfer the property rights to a large share of the country's available land to local authorities and private entities.*

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\* Dr. Noam Gruber, senior researcher, Taub Center for Social Policy Studies in Israel. I thank Daniel Premisler for his extensive assistance in processing the data. I am also grateful to Dan Ben-David and to Ayal Kimhi for their useful comments.

## *Introduction*

The more than 50 percent increase in housing prices that occurred during the period 2007-2013 (in real terms) is at present the main barrier to buying a home for many families and especially for younger and lower-income households. A steep decline in interest rates due to the global economic crisis, combined with capital-market taxation practices that created a comparative advantage for real estate investment, led to a sharp rise in the demand for housing. Rigid systemic barriers kept the housing supply from increasing in a manner commensurate with demand, resulting in competition between investors and young households for the limited supply of new residences. The outcome has been a price increase and the consequent crowding out of less-affluent households, which are compelled to rent from these same investors. The expectation that housing prices will remain high and keep rising in the foreseeable future has become a self-fulfilling prophecy and created the present housing bubble. Despite the government's efforts to bolster supply, the Israeli public is highly skeptical both of the state's professed desire to bring about a substantial drop in prices, and of its actual ability to do so. The aim of this chapter is to identify the causes of the housing price increase, analyze its impact on Israeli society, and review the policy measures that should be taken to address it.

### *1. Characteristics of the Housing Market*

The lengthy period necessary to build an apartment distinguishes the housing market from other markets, in which supply is able to adapt to demand within relatively short time frames. This distinction is particularly relevant to Israel, where bureaucratic red tape leads to delays on both the national and local levels. Rigid supply means that prices are set in the short term by the demand side. In a functioning market, however, supply should gradually reduce housing prices to the range of their total construction cost – since as long as apartment prices exceed the

sum total of the costs entailed by their construction, it would be profitable for contractors to keep building. Thus, a rise in demand brings about a rise in prices, which should, in turn, expand the scope of construction and thereby of supply, up to the point where prices reach their natural level.<sup>1</sup> At times, however, this can be a long-term process, given how hard it is to significantly increase the housing supply within a short period, the time it takes to build, the need for appropriate infrastructure, and bureaucracy.

The more rigid the supply of housing, the more extreme and prolonged is the reaction of prices to changes in demand. This reaction is liable to be further exacerbated through buyer leveraging (increasing the mortgage payment to household income ratio) and investment entry and exit, to a point where a destructive cycle is created. For example, when prices rise, households leverage themselves to an ever-greater extent in order to afford them, meaning that more and more capital enters the real estate investment market; prices then continue to rise, and so on until the painful collapse occurs. This housing bubble phenomenon is much more prevalent in areas where supply is very rigid, as shown by Glaeser et al. (2008), because in these areas the expectation that prices will continue to rise is rational and self-fulfilling. Although opinions differ regarding the contention that there is a housing bubble in Israel,<sup>2</sup> it is clear that the rapid and ongoing rise in prices took place concomitantly with a major increase in real estate acquisitions for investment purposes, and that greater flexibility in the supply of apartments relative to price would stimulate construction on a larger scale and reduce price volatility in the housing market. As shown by Caldera Sanchez and Johansson (2011) in an international comparison, Israel's housing supply has a low elasticity

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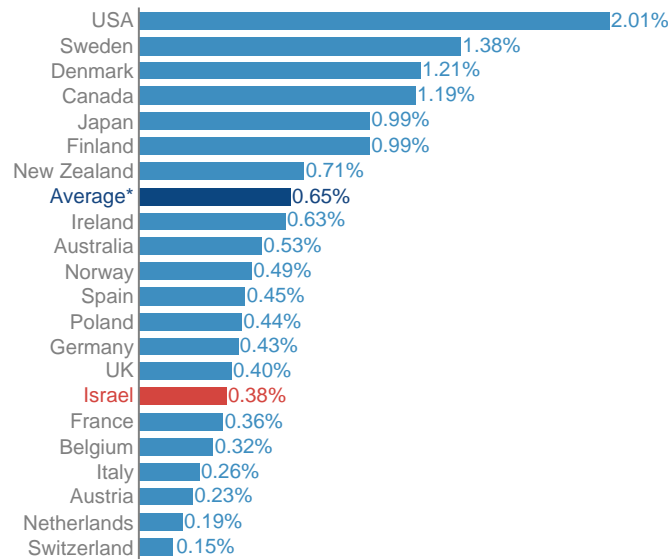
<sup>1</sup> The term "natural price level" refers to the level of prices at long-term equilibrium, reflecting the total construction cost plus reasonable profit for the developer.

<sup>2</sup> For example, Nagar and Segal (2011) and Dovman et al. (2011) find no real housing bubble, at least as of 2010. On the other hand, an International Monetary Fund report notes that Israeli housing prices are 25 percent higher than their natural level (IMF, 2014).

in relation to price (Figure 1). In Israel, a 1 percent increase in housing prices brings about a 0.38 percent increase in supply – a much lower ratio than in countries such as Canada and Denmark (1.2 percent), Sweden (1.4 percent) and the United States (2 percent). This characteristically Israeli phenomenon – price increases not accompanied by a commensurate expansion of the housing supply – produces the conditions in which a housing bubble can emerge, in contrast to countries where rising prices drive a steep increase in supply.

Figure 1

**Percent rise in the supply of new housing units  
in response to 1 percent rise in housing price**



\* Average of all countries in the figure

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Caldera Sanchez and Johansson, 2011

In an efficiently functioning market, rising demand should generate a rise in prices that in turn leads, within a relatively short timeframe, to a construction boom. When accompanied by the alleviation of transportation bottlenecks and the acceleration of regional development, a surge in construction can enlarge the supply and improve the quality of housing in a given market. Instead of this happening in Israel, however, recent years have witnessed a situation in which the initial price rise generated by limited supply continues indefinitely due to over-leveraging of buyers and investors, creating a speculative bubble. Soaring housing prices prompt calls for emergency measures on the part of the government, mainly in the form of large-scale construction projects. Yet these kinds of projects – having bypassed the planning authorities – are liable to put tremendous pressure on infrastructure, and to cause major environmental damage. The elevated prices encourage high-rise construction in places where there is no long-term justification for it,<sup>3</sup> and the large gap that ensues between demand and supply results in low construction standards, since developers have less need to compete for buyers.<sup>4</sup> Furthermore, direct government involvement in housing construction is liable to be a factor in the high proportion of poor-quality construction that so often characterizes public housing.<sup>5</sup>

Ultimately, high prices, buyer overleveraging and huge state construction projects increase the likelihood of a housing market collapse. In a pessimistic yet altogether plausible “doomsday” scenario, rising interest rates would lead to higher mortgage payments and lower housing demand. Meanwhile, public housing developers would flood the market with apartments. Investors – who have real estate on their hands that is losing its value at a time when they can see the potential for higher yields in the capital market – would hasten to sell the properties in their

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<sup>3</sup> Professor Rachelle Alterman explains that the burdensome cost of maintaining high-rises makes them suitable for luxury apartments only (Shauli, 2014).

<sup>4</sup> A study by Yehiel Rosenfeld and Hanan Ben Oz calls attention to Israel’s low construction standards (Smolsky, 2014).

<sup>5</sup> As happened in the 1990s (Mirovsky, 2014).

possession. Households that bought apartments to live in and are tied to variable-rate mortgages with growing payments<sup>6</sup> would also wish to sell their homes so as to pay off their debt and purchase similar or better apartments at lower prices, once prices ceased dropping. These factors would drive prices still lower, in a vicious cycle. Construction would halt completely, at least in the private sector, and the construction industry would suffer mass layoffs and widespread bankruptcies.

## *2. Estimating Housing Prices*

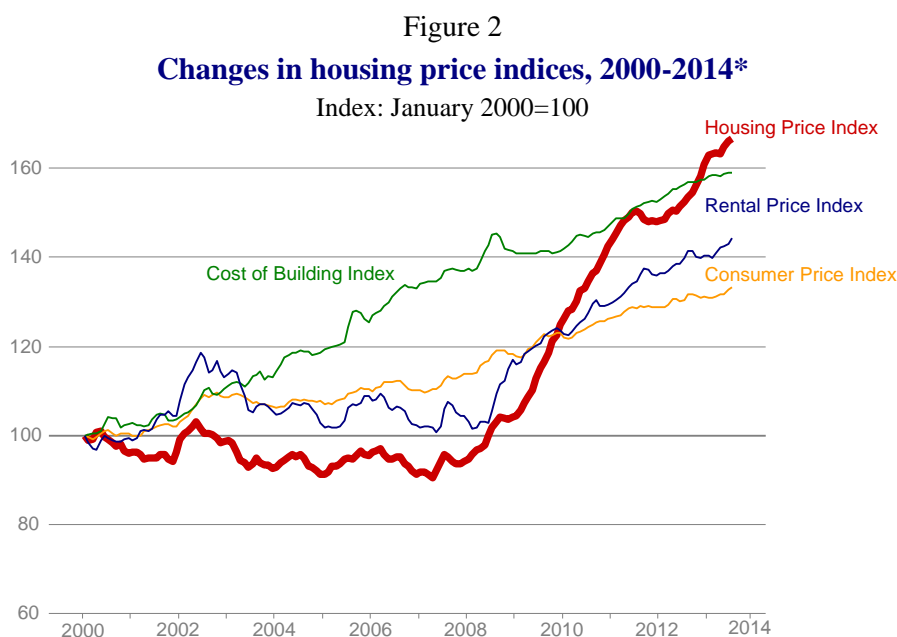
Israeli public debate draws on several different kinds of housing price estimates. The Ministry of Finance (2013) reports on the ratio of mean/median apartment price to mean/median household income; the Ministry of Construction and Housing (2013) focuses on mean apartment prices in general and on the breakdown between new and secondhand units, as well as the breakdown by number of rooms; the Chief Government Appraiser (Ministry of Justice, 2013) examines changes in the average price of 4-room (3-bedroom) apartments, per unit sold and by city. By contrast, the Interdisciplinary Center's Gazit-Globe Real Estate Institute publishes its GGII index, based on secondhand apartment repeat sales, similar to the American Case-Shiller Index; and finally, the Central Bureau of Statistics publishes a housing price index based on the hedonic pricing method – that is, accounting for the effects of housing quality on price. The Central Bureau of Statistics also conducts a household expenditure survey that includes data on the value of homes owned by households, as estimated by the households themselves. The world's leading indices in terms of their ability to account for differences between residential units over time when calculating price changes, are the repeat-sales indices (Case-Shiller; GGII) and the hedonic indices, as used by the Central Bureau of Statistics. Each of these indices has its own drawbacks,

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<sup>6</sup> Variable-rate mortgages accounted for 80 percent of all mortgages in 2011, when the Supervisor of Banks limited the variable rate component of mortgage loans (Benita and Naor, 2013).

but the picture they provide regarding the price increases of recent years is nearly identical (Gazit-Globe Real Estate Institute, 2012). This chapter relies on the Central Bureau of Statistics' housing price index, except where otherwise indicated.

As may be seen in Figure 2, nominal housing prices, (i.e., prices not adjusted for changes in the Consumer Price Index) remained stable and even declined from the early 2000s to the beginning of 2008. Essentially, the June 2008 housing price index returned to its nominal level of January 2000. After adjusting for CPI increases during this period, the picture obtained is one of a real decline in housing prices during most of the 2000s. The housing price index caught up with the CPI index rise only in November 2009. Starting in early 2008, the housing price trend changed; prices began a steep and continuous ascent which, except for a brief drop in the second half of 2011, is ongoing. From the low point of April 2007 to June 2011, housing prices increased nominally by 84 percent, or by 53 percent in real terms adjusting for the change in CPI.



\* Data are for January in each year

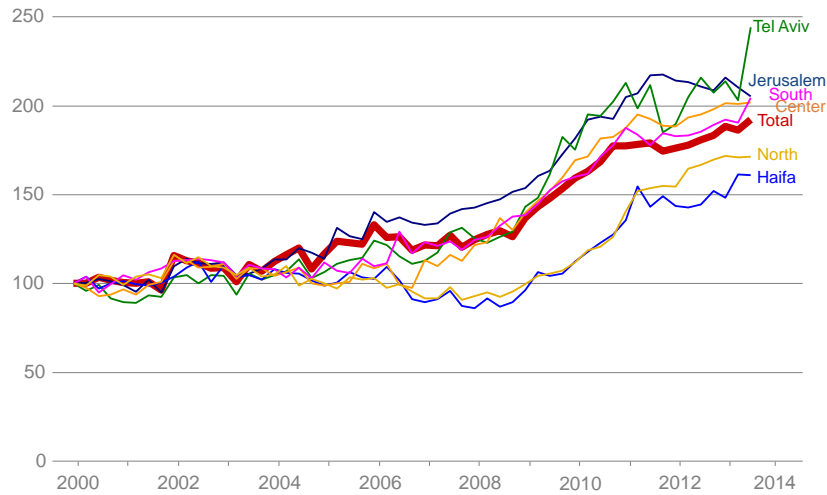
Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics



As can be seen in Figure 3, the rise in housing prices is a nationwide phenomenon; it reached northern Israel with nearly a year's delay, but from early 2009 on, the trend has encompassed that region as well.

Figure 3  
**Housing Price Index for 3.5-4 room apartments\*, by district**  
 Index: First quarter of 2000=100, in current prices, 2000-2014\*\*



\* Owner-occupied apartments

\*\* Data are for January in each year

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics

Based on a comparison of the Housing Price Index to the Cost of Building Index, which represents construction costs of labor and materials but not the cost of land (Figure 2 previously), it appears that building input prices do not play a major role in the housing price rise, as there is no correlation between the two metrics.

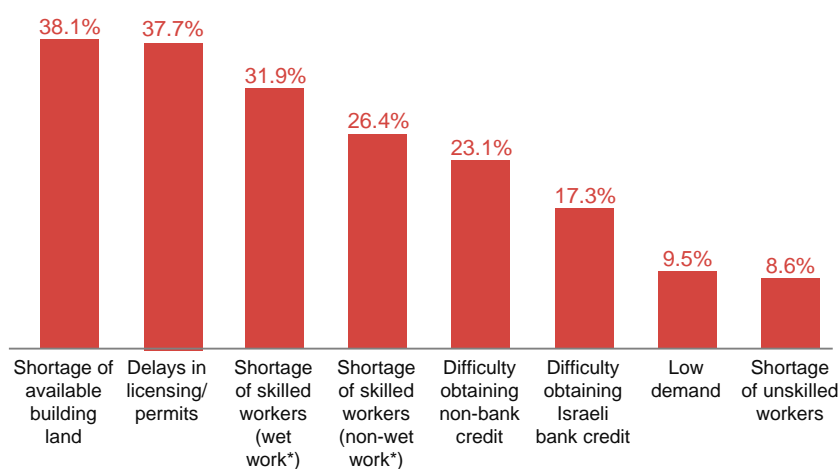
By contrast, the change in land prices between 1998 and 2012 closely corresponds to the rise in housing prices, at least in central Israel (Zussman, 2013). When one looks at the correlation between the change in land prices and the change in housing prices, and at the substantial regional price disparities, one finds that the primary cause of the housing price increase is the shortage of land for construction, rather than the impact of any other inputs. This hypothesis is also supported by Eckstein et al. (2012), who show that despite requiring similar inputs, commercial real estate prices have not increased alongside residential prices, as commercial real estate has not faced similar permit constraints to residential real estate.

The two main barriers behind the rigid supply, as reported by construction companies (Figure 4), are a lack of available land and permit delays. The companies also point to a shortage of skilled workers and to credit difficulties, although to a lesser degree.

Figure 4

### Severe constraints reported by construction companies

percent of all construction companies, by type of constraint, October 2013



\* Wet work includes foundation, plastering and flooring

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Business Tendency Survey*

Since December 2010, when the Central Bureau of Statistics began conducting the Business Tendency Survey, and October 2013, there has been an improvement in the availability of skilled workers – a reduction from 43.5 percent to 31.9 percent in the share of construction firms reporting a severe shortage of skilled labor in wet work (foundation, plastering and flooring), and a reduction from 36.1 percent to 26.4 percent in the share of companies reporting a severe shortage of non-wet work labor. In contrast, the percentage of construction firms reporting that land shortages and permit delays are severely constraining their activity remained virtually unchanged during this period. The conclusion that can be drawn is that in order to increase housing supply flexibility, the government should now focus on shortening and simplifying the bureaucratic process involved in obtaining building permits.<sup>7</sup>

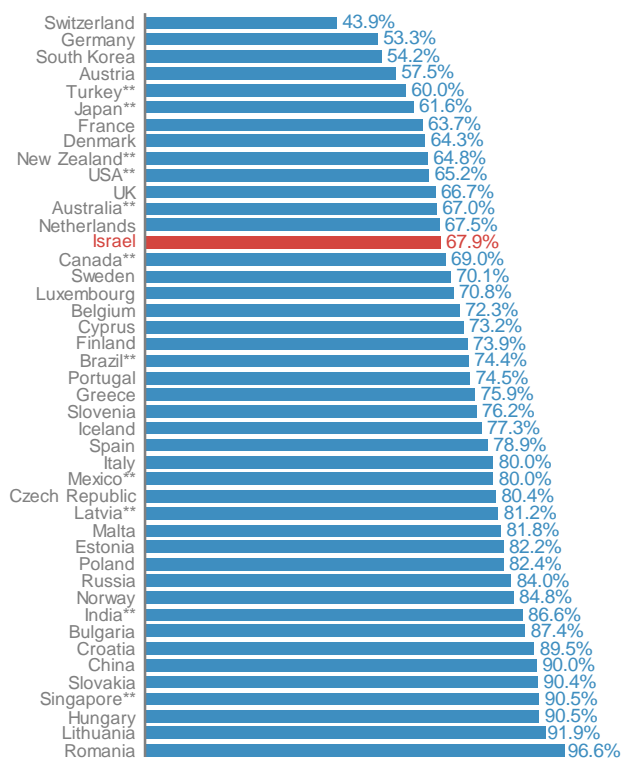
### ***3. Social Impact of the Rise in Housing Prices***

As noted by Andrews and Sanchez (2011), home ownership, whose rates have increased gradually in many OECD countries over recent decades, is regarded as a positive socioeconomic factor that enables households to accumulate assets while also fostering their community involvement and their children's scholastic achievements. Israeli homeownership rates are moderate by international comparison, although similar to the rates of most developed countries. Former Eastern bloc countries actually enjoy the highest homeownership rates, due to the transfer of residential unit ownership to tenants when the Communist era ended (Figure 5).

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<sup>7</sup> For a discussion of the construction industry's skilled labor shortage, see the Appendix.

Figure 5  
**Owner-occupier households\***  
 as percent of all households, 2012



\* Not including apartment owners who are not living in the apartment that they own

\*\* Data for the following years: Japan and Brazil (2008); Mexico (2009); Turkey, Australia, Canada, and India (2011); New Zealand, USA, Latvia, and Singapore (2013)

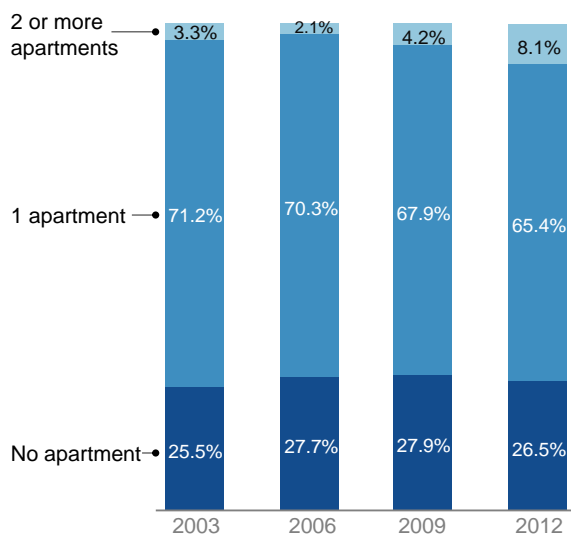
Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Caldera Sanchez and Johansson, 2011

Despite the escalating prices of recent years, the percentage of Israeli households that do not own an apartment of any kind (whether occupied by them or not) actually declined from 27.7 percent in 2006 to 26.5

percent in 2012 (Figure 6).<sup>8</sup> Overall, what stands out in recent years is a dramatic rise in the percentage of households that own two or more apartments:<sup>9</sup> from 2.1 percent in 2006 to 8.1 percent in 2012 – a nearly fourfold increase.

Figure 6  
**Distribution of households\* by ownership category**



\* Head of household aged 25 and over

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

<sup>8</sup> Of the households that do not own apartments, most (87 percent in 2012) rent apartments, while the rest live in apartments that do not belong to them – usually properties owned by relatives, employers or kibbutzim.

<sup>9</sup> A household that owns at least two apartments is defined here as a household with one owner-occupied apartment and at least one additional apartment. The Central Bureau of Statistics' expenditure survey does not provide data on the exact number of additional apartments owned by each household; thus, a household that does not reside in an apartment that it owns but that owns additional apartments will be regarded as owning a single apartment.

The rise in the percentage of households that own two or more apartments reflects expanded investor activity in the real estate market – from 22.5 percent of purchases in 2003 to 30.4 percent in 2008, as noted by Ben Naim (2009). Bank of Israel Research Department data (2013) show that the percentage of investment transactions out of total residential transactions continued to rise during 2009 and 2010, but declined sharply in early 2011; since then it has remained in the 23 to 25 percent range.<sup>10</sup> This moderation may be attributed to efforts to raise the purchase tax on residential investment properties – an increase that went into effect in February 2011. It is also likely that the summer 2011 housing protest and ensuing uncertainty also helped drive down the share of investment-related transactions.

The rise in the percentage of owners of two or more apartments during a period when the percentage of non-homeowning households remained steady would seem, at first glance, contradictory: why aren't there more households living in apartments that they do not own (either rented or owned by relatives)? This phenomenon has two possible explanations: (1) the number of those with only a few residential properties rose, but the number of those with many such properties dropped because the large real estate investors realized their holdings – meaning that investors in the more-than-one-apartment category each owned fewer residential properties on average in 2012 than they did in 2006; (2) the number of vacant properties – those in which there is no one living on a permanent basis – rose. In addition to their investment function, these properties also serve as secondary residences for the wealthy. Based on Israel Electric Corporation data, the Trajtenberg Committee estimated the number of vacant apartments at 46,855 – a number that exceeds annual construction at the present rate.

As noted, despite the rise in the percentage of those who own at least two residential properties, the percentage of those who own at least one

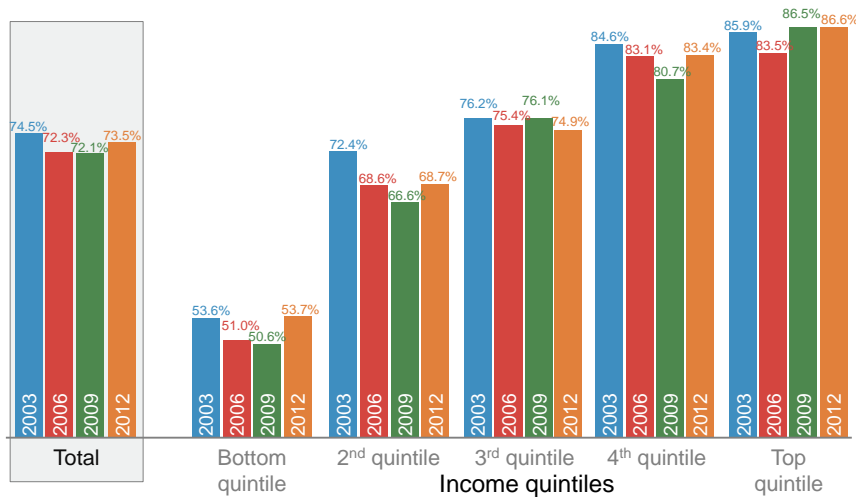
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<sup>10</sup> According to Ministry of Construction and Housing data, 24.4 percent of total residential property transactions in the period between June 2012 and February 2013 were for investment purposes (21.6 percent of transactions were by local investors and 2.8 percent were by foreign investors).

apartment remained virtually unchanged over the past decade, even when examining a breakdown by income level (Figure 7). The homeownership rate for the lowest-income quintile, Quintile 1, ranged from 50-55 percent, while for quintiles 2 to 5, the range was 70 percent (Quintile 2) to 85 percent (Quintile 5).

Figure 7

### Home ownership rate\* by household income quintile



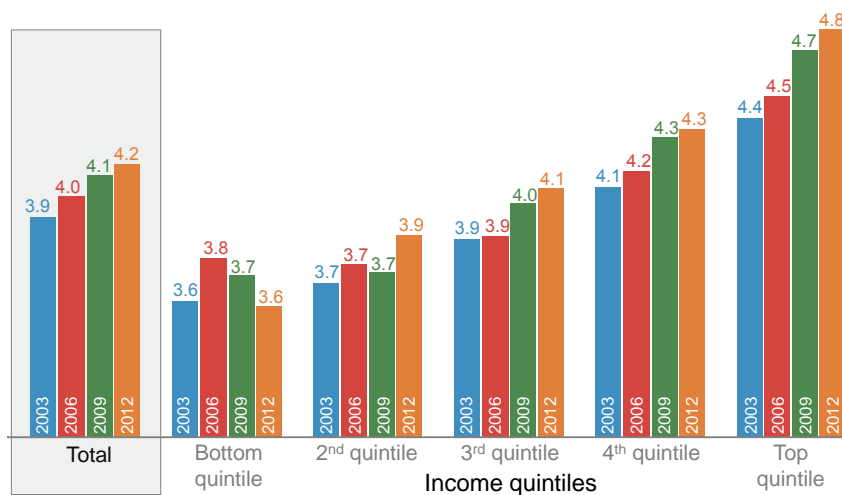
\* Ownership of one or more apartments, regardless of whether owner lives in it. Head of household aged 25 and over

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

Moreover, the average number of rooms per apartment has been rising steadily for most income quintiles (2 to 5), as presented in Figure 8, and the price rise does not appear to be curbing this trend. Only for the bottom income quintile is there a trend toward fewer rooms on average, from 3.7 in 2009 to 3.6 in 2012.

Figure 8  
**Average number of rooms in owner-occupied apartments**  
 by household income quintile\*, selected years



\* Head of household aged 25 and over

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

The picture changes when households are divided by age of the head of household (Figure 9). Over the past decade, the percentage of young households in the 25-34 age range that do not own homes increased by 20 percent (from 43 percent in 2003 to 54 percent in 2012). However, this is a long-term trend and is likely also rooted in demographic shifts, such as a rise in the average marriage age, and is not necessarily due to an increase in housing prices. For example, even in 2007, before the price rise began, 51 percent of young Israeli households did not own homes. Although it stands to reason that the housing price increase would have had less impact on the homeownership rate among older households – those that already owned homes before prices started to rise – and a greater impact on younger households who still have the home purchase

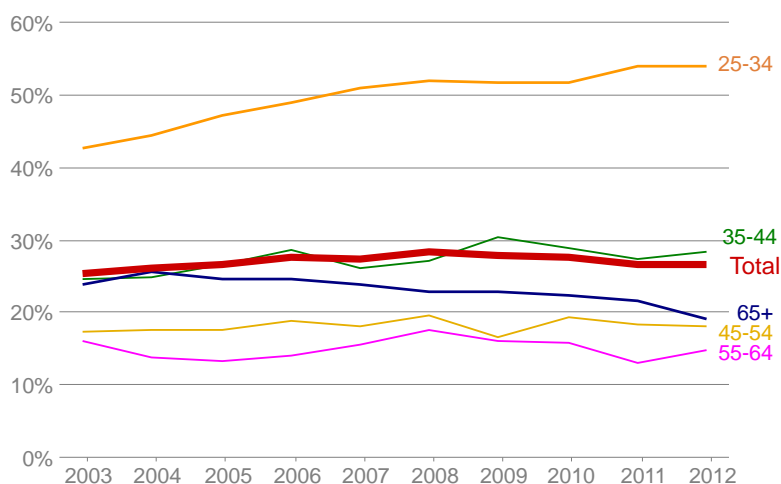


decision before them, the actual data do not indicate a dramatic change in the long-term trend regarding homeownership rates among the young. It is hard to say how much of the non-homeownership rate increase among young households (from 51 percent in 2007 to 54 percent in 2012) is due to high housing prices, but if the younger population aspires to homeownership rates similar to those of older households, then today's housing prices clearly constitute a formidable hurdle. The data do, by contrast, offer some hope; the percentage of non-homeowning Israelis aged 65 and over is actually declining.

Figure 9

### Households not owning an apartment

as percent of all households, by age of head of household, 2003-2012



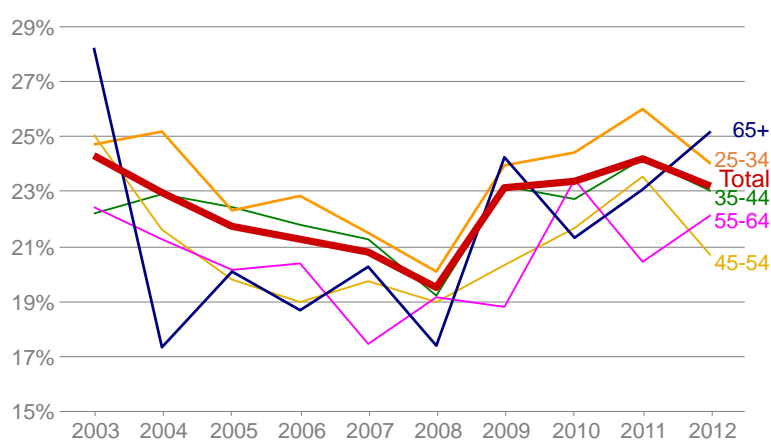
Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

The effect of housing price increases on economic well-being is reflected in the expenditures on rent for households living in rented apartments. The rise in rental expenditure clearly translates into a heavier

economic burden and, as seen in Figure 10, those hardest hit are the youngest and oldest renting households. These households lost about 5 percent of their disposable income during the period 2008-2011 due to the increased rent burden. It should be noted, however, that overall by 2011, the share of rent out of household income had returned to a level similar to that of 2003.

Figure 10  
**Share of rental expenditure out of household income**  
 median rent expenditure out of net cash income  
 among renting households, by age group, 2003-2012



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

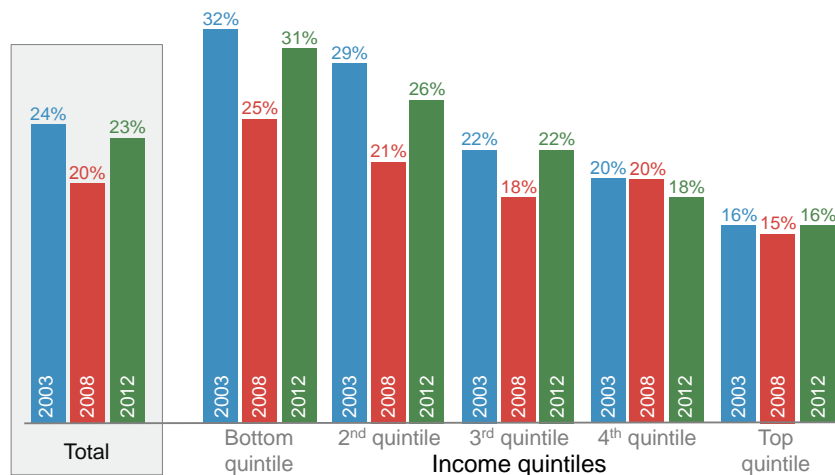
The negative impact on renters' economic well-being can also be seen in a breakdown by income quintiles (Figure 11). The increased share of rent out of household expenditures is most evident among low-income renters (the two lowest quintiles). Younger and lower-income households that have not bought apartments, whether by choice or because high housing prices have made the option unattainable, have been obliged in recent years to spend a higher (though not unprecedented) proportion of

their income on rent. Beyond the difficulty of buying a home at current prices, one may assume that high housing costs make it hard for households to save money and delay any future home purchase even further. If this trend within the young-household population continues, it could well have a long-term negative impact on Israeli homeownership rates.

Figure 11

### Share of rental expenditure out of household income

median rate expenditure out of net cash income  
among renting households\*, by age group



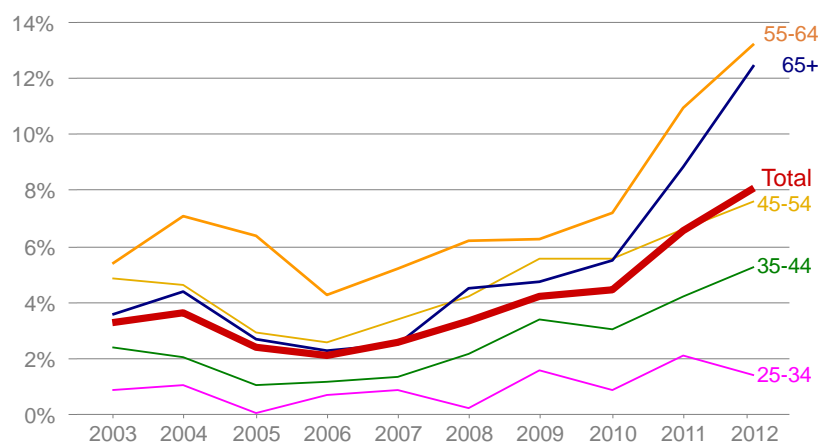
\* Head of household aged 25 and over

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

Entirely different trends are clearly discerned among households that own more than one residential property. Especially apparent is a rise in real estate holdings beginning in 2006. Although this increase is common to nearly all age and income groups, it particularly stands out among older households (Figure 12) and those with high incomes (Figure 13).

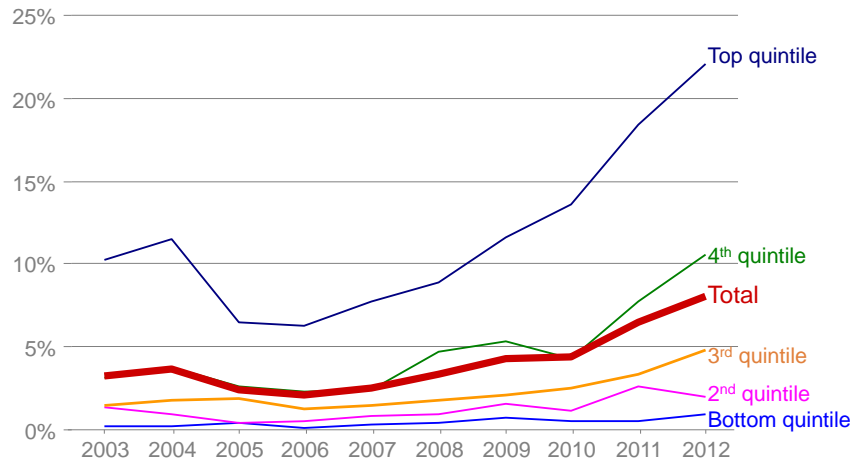
Figure 12  
**Ownership rate of two or more apartments**  
 by age of head of household, 2003-2012



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel  
 Data: Central Bureau of Statistics, *Household Expenditure Survey*

More and more older households have chosen in recent years to invest their savings in additional residential properties, as an alternative to investment in the financial market and as a way of ensuring extra income for their post-retirement years. This creates a clear polarization between younger households, whose homeownership rates are declining, and older households whose demand for real estate is actually growing. The demand increase among older households raises prices and makes it difficult for younger people to buy homes, and these younger people then continue to rent – in all likelihood from older households. This intergenerational polarization, and the concern among younger people that they will not attain the quality of life that their parents enjoy, was a driving force behind the 2011 social protests, as described by Shalev (2012).

Figure 13  
**Ownership rate of two or more apartments**  
 by household income quintiles\*, 2003-2012



\* Head of household aged 25 and over

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

A similar polarization can also be seen between income levels.<sup>11</sup> High-income households, which owned more apartments to begin with, have benefited more from the rise in prices. The percentage of households in the highest quintile that own two or more residential properties has increased by 16 percentage points – from 6 percent in 2006 to 22 percent in 2012. The multiple-apartment ownership rate rose for all income groups, but it is clear that high-income households, those with more funds available for real estate investment, have seen the highest growth.

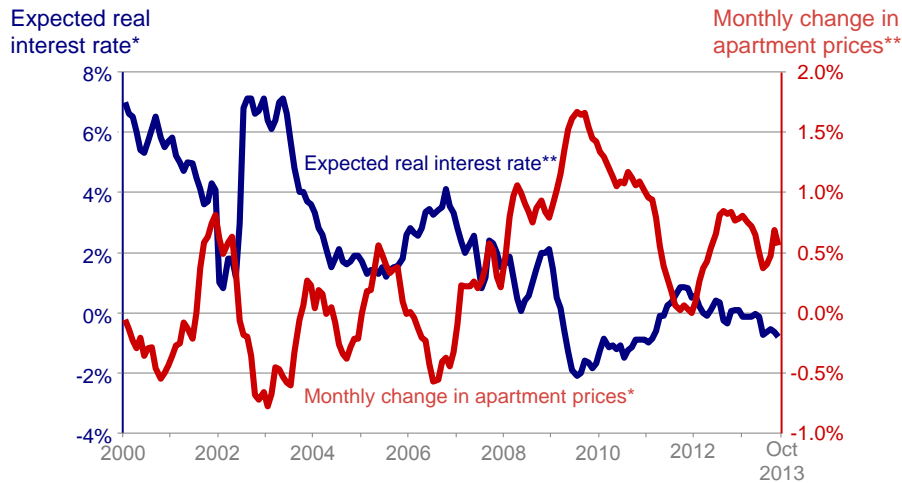
<sup>11</sup> This, however, is unsurprising, given the correlation between age and income and between extent of assets, age and income.

#### *4. Impact of Interest Rates on Housing Demand*

The worldwide recession that came about in the wake of the sub-prime crisis in the United States caused interest rates to fall dramatically across the globe, including in Israel. In response to the crisis, the Bank of Israel was forced to lower interest rates in order to spur local demand and avoid a recession, and especially in order to prevent a harsh blow to exports due to the strengthening of the shekel, which would have resulted from an influx of foreign capital in search of high returns on investment.

Low interest rates also had a major impact on housing demand, both by enhancing homebuyers' ability to pay and by making real estate investment more feasible compared to other investment options. Lower interest rates decrease monthly mortgage payments relative to the total mortgage amount, meaning that homebuyers can commit to a larger mortgage at the same monthly repayment rate, or reduce the monthly payment for the same size mortgage. This situation made it possible to afford more expensive properties and may have led renting households to choose to buy. Low interest rates also lessen the return on financial investments, such as bonds, and make real estate investment more attractive, relatively speaking. This effect is intensified by the tax preference granted to real estate versus financial investment. The distinction between those who buy real estate for residential purposes and those who purchase it as an investment is somewhat artificial, given that investment considerations such as low yield in the financial market and expectations of housing price increases may also incentivize renting households to buy properties to live in.

Figure 14  
**Expected real interest rates and changes in apartment prices**  
 percent, 2000-2013



\* Bank of Israel interest rate less average projected inflation rate

\*\* 10-month moving average: January 1 in each year, the four previous months and the five following months

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, Bank of Israel

As seen in Figure 14, there is a strong negative correlation between expected real interest rates and housing price changes. The very high correlation between three factors – expected real interest rate, level of real bond yield, and the mean interest rate on index-linked mortgages<sup>12</sup> – reflects the impact of the prevailing interest rate on household purchasing power (via mortgages) and on the relative attractiveness of real estate investment as compared with investment in the financial market.

<sup>12</sup> The interest rate on index-linked mortgages better reflects the real cost of the mortgage, since it adjusts for inflation.

In the early 2000s, when interest rates were high – up to 7 percent – housing prices were stagnant. When interest rates began to drop toward the end of 2006, housing prices started trending upward, peaking in late 2009 when prices were rising at a monthly rate of over 1.5 percent. The temporary interest rate hike in late 2009 was accompanied by a halt in the housing price increase during the same period; when interest rates were lowered once again, housing prices rose accordingly. Figure 14 supports the view that housing prices are, in the short term, determined by the demand side, and that low interest rates are a major cause of rapid housing price increases.<sup>13</sup>

As noted, low interest rates enable households to take out larger mortgages at the same monthly repayment rate. There is also a sense that the current cheap credit environment could potentially cause many households to leverage themselves even further, that is, to increase the size of the mortgage relative to their income by increasing their monthly payments or prolonging the mortgage term. The low interest rates further increase the amount households are willing and able to pay for home purchases.

As presented in Figure 15, the combination of the aforementioned factors – lower interest rates, higher ratio of mortgage payment to household income, and extended mortgage repayment periods – dramatically enlarges the mortgages that households can commit to. In Case A, with an annual interest rate of 7 percent – like that of the early 2000s – a household with a monthly income of NIS 10,000 that chooses a monthly payment of 25 percent of its income for a period of 10 years will be granted a mortgage of NIS 217,000. In Case B – with an annual interest rate of 2.5 percent, like that of the past five years – a household can get a NIS 265,000 mortgage at the same monthly payment rate and over the same term. Should the household decide to increase its payment rate to a 35 percent share of its monthly income at the same interest rate (Case C), it will get a NIS 372,000 mortgage. By comparison, if instead

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<sup>13</sup> Nagar and Segal (2011) also find that interest rates are the main factor behind the rise in Israeli housing prices.



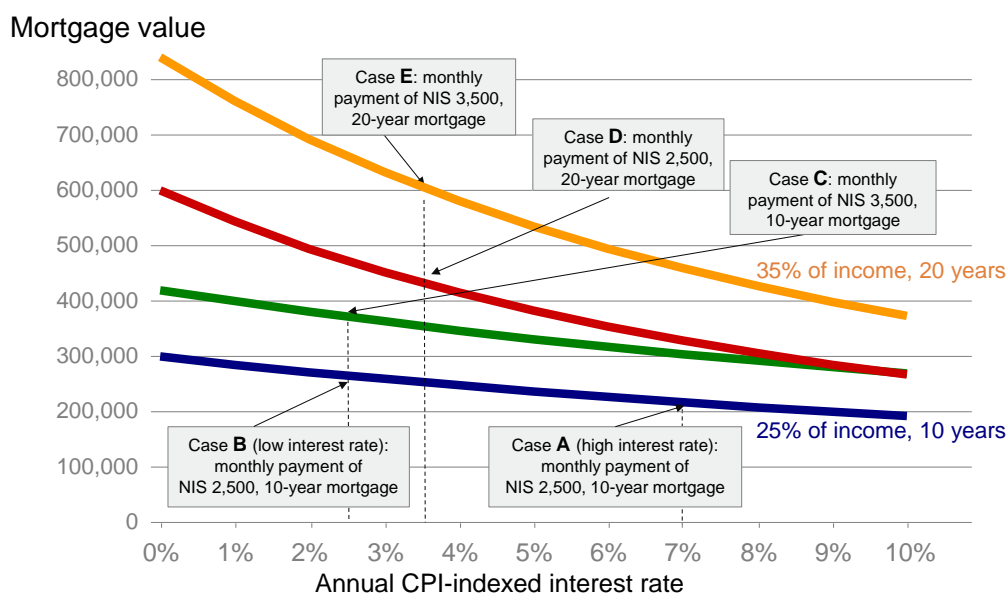
of increasing its monthly payment, the household chooses to extend the mortgage term from 10 to 20 years and to pay 3.5 percent interest<sup>14</sup> (Case D), then the household will be able to obtain a NIS 433,000 mortgage. Finally, in Case E – 3.5 percent annual interest, 35 percent share of monthly income and 20-year repayment period – a household with the same income can get a NIS 606,000 mortgage, nearly three times that obtained in Case A.

If the household can make a down payment of NIS 200,000, then in Case A, it could buy a home whose price is slightly more than NIS 400,000, at a loan-to-value (LTV) ratio of about 50 percent. By contrast, in Case E the household will purchase an apartment that costs at least twice as much – over NIS 800,000 – at an LTV of about 75 percent. As the supply of residential properties in the NIS 800,000 price range is currently minimal, this numerical example drives home just how far from affordable today's actual housing prices are for many Israeli families. Only households with substantial assets, or those with high incomes willing to commit to long-term mortgages at high monthly payment rates, are currently able to purchase apartments.

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<sup>14</sup> According to Bank of Israel data, the average interest on index-linked mortgages with terms of 15-20 years is about 1 percentage point higher than the interest on 5-10 year mortgages.

Figure 15  
**Mortgage simulation: Mortgage value for varying interest rates, monthly payments and repayment periods**  
 for households with net monthly income of NIS 10,000



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

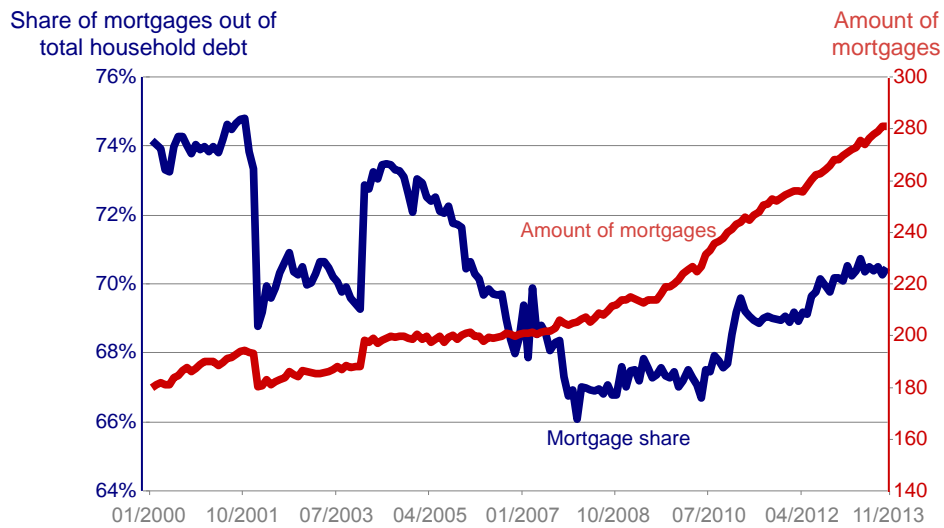
The rise in households' ability to make mortgage payments due to lower interest rates could, as noted, potentially create a vicious cycle of rising prices and households leveraging themselves to ever-greater degrees by increasing their monthly payments and extending the terms of their mortgages to cope with the rising prices. The power of this feedback loop is reinforced by investor activity, since mounting prices in the housing market, coupled with low yield from other investment channels – due to low interest rates and to taxation of capital market profits – are liable to draw more and more capital and demand into the residential real estate market, thereby driving prices higher, and so on and so forth.

Figure 16 shows that household mortgages, both in absolute numbers and as a share of all household debt, have been trending steadily upward since the beginning of 2008, at the same time as the rise in housing prices. This correlation between debt and rise in prices can be interpreted as a representation of increased household leveraging – which is itself both an outcome of the housing price increase and a factor in its continuation.

Figure 16

### Mortgage debt, 2000-2013

as a percent of all household debt  
and in billions of shekels (January 2013 prices)

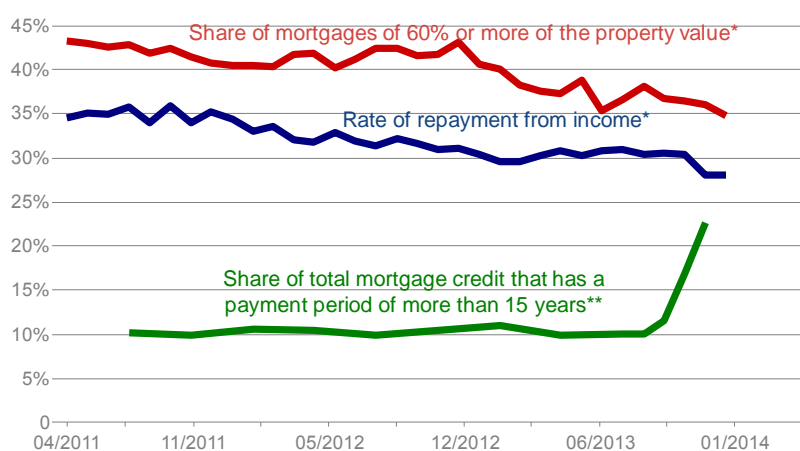


Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Bank of Israel (Reports of the Supervisor of Banks and Information and Statistics Department), Central Bureau of Statistics

One reservation regarding the foregoing is that the ratio of mortgage debt to total household debt, which amounts to a little over 70 percent, is not high relative to the levels of the first half of the 2000s. Moreover, household leverage rates, as reflected in mortgage size relative to asset value (LTV) and in monthly payment rates as a percentage of income, have not risen appreciably (Figures 17 and 18).

Figure 17  
**Mortgage characteristics**  
 by month of mortgage issue, 2011-2013



\* Average weighted by mortgage size

\*\* Presented by quarters until July 2013

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Bank of Israel

Unfortunately, the Bank of Israel began gathering and publishing detailed mortgage data only in 2011, meaning that no figures are available regarding changes in the LTV, average payment to income ratio, or length of mortgage terms during the period of rising prices between 2008 and 2010. In April 2011 – the point from which mortgage data are available – the picture indeed indicates relatively high leveraging; 43 percent of the mortgage credit issued was for mortgages in excess of 60 percent of the asset, while the average payment as a share of household income was 35 percent (Figure 17). The high leverage rate raises the risk of default, as in situations where a wage earner within the household loses his/her job. These data for 2011 thus point to a large proportion of high-risk mortgages.

In an effort to calculate mortgage characteristics for the period before precise data became available, Benita and Naor (2013) estimate the average financing rate (ratio of total loans to total assets sold) for the entire real estate market from 2002 on, by crossing data from the Bank of Israel, the Ministry of Finance and the Central Bureau of Statistics – demonstrating an overall upward trend, from 30 percent in 2002 to 45 percent in 2012. It should be emphasized that these data refer to the average financing rate for the entire real estate market, not just for those with mortgages (LTV), since some real estate transactions take place without mortgages. Additionally, Benita and Naor (2013) estimate the average payment to income ratio, and find a sharp rise over the years 2009-2010 – from 23 percent at the beginning of 2009 to over 30 percent in 2010.

In contrast to Benita and Naor's estimates, Figure 17 shows that over the past two years, there has been a decline both in the proportion of mortgages that exceed 60 percent of asset value – from 43.2 percent in April 2011 to 34.8 percent in December 2013 – and in the average payment to income ratio: from 34.5 percent in April 2011 to 28 percent in

December 2013.<sup>15</sup> The Central Bureau of Statistics' expenditure survey data are also inconsistent with Benita and Naor's assessments; they actually point to a decline in the mortgage payment to income ratio over the past decade (Figure 18).<sup>16,17</sup>

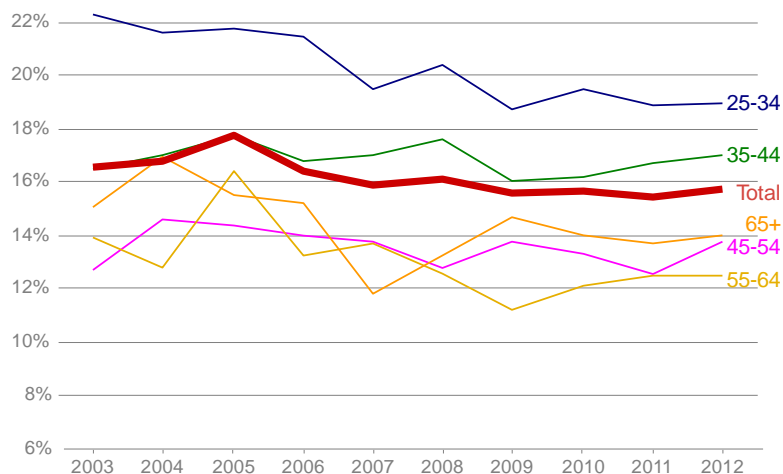
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<sup>15</sup> The discrepancy in these figures may be due to Benita and Naor's use of average mortgage rates, as opposed to Bank of Israel data which are based on weighted averages, by mortgage size.

<sup>16</sup> It should be noted that for households paying off older mortgages, the interest rate decline could have led to a drop in monthly payments, whether due to the mortgage's variable-rate component or to mortgage refinancing (i.e., taking out a new mortgage under improved conditions), meaning that examining an average of all mortgage-paying households would not be representative of the burden on households obtaining new mortgages. Furthermore, Benita and Naor (2013) focus on ratios of mean mortgage payments to mean income, rather than on the mean of the ratios between these factors. They justify their choice by contending that this ratio is biased downward, stemming from their assumption that the payment to income ratio declines with income. Although this is true for those with mortgages (per an analysis of the expenditure survey data conducted by the author), it is clear that the percentage of renters (who have no mortgage payments) actually declines with income (see Figure 6), meaning that this premise is not necessarily valid.

<sup>17</sup> Use of the median rate rather than the mean is meant to neutralize the effect of extreme cases, such as households whose income is very low relative to their mortgage. When extreme outliers are removed, the mean and median trends are similar.

Figure 18  
**Median mortgage payment as percent of income**  
 among all households paying a mortgage,  
 by age of head of household, 2003-2012



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Household Expenditure Survey*

Some declines in the leverage rate (LTV) and in the payment to income ratio (Figure 17) can be attributed to restrictions instituted by the Supervisor of Banks, out of a desire to limit risk in the housing credit market and circumvent any threat to the financial system's stability should a large number of households go into default, as happened in the United States during the sub-prime crisis period. Another (undeclared) objective of the Supervisor of Banks is to restrain the housing price upsurge and weaken the effect of interest rates on housing demand – given that the relationship between interest rates and housing prices could potentially limit the Bank of Israel's ability to bring interest rates down further in order to weaken the shekel against other currencies.

On November 1, 2012, differential limits were imposed on mortgage LTV: 75 percent for first-time homebuyers, 70 percent for home “upgraders” and 50 percent for investors. Since these restrictions were instituted there has been a consistent decline in leverage rates of more than 60 percent of asset value, and thus the limits appear to have achieved their goal of reducing the proportion of high-risk loans (Figure 17).

Additional restrictions imposed by the Supervisor of Banks on September 1, 2013 prohibit the granting of mortgages at payment rates exceeding 50 percent of household income, while instituting stricter reserve requirements for mortgages with payment-to-income ratios of 40-50 percent, limiting the variable-rate component within loans to no more than 66.7 percent,<sup>18</sup> and prohibiting loan repayment periods in excess of 30 years. As seen in Figure 17, there was indeed a certain decrease in average payment as a share of income during the final months of 2013, but this came in exchange for a substantial increase in the payback period length. Thus, the percentage of mortgages with terms in excess of 15 years more than doubled within three months – from 10 percent in August to 22.6 percent in November, the last month for which data are available. It is altogether unclear whether the payment to income ratio limitations, which drove many households to extend their mortgage repayment terms so as to reduce their monthly payments, did indeed lower their mortgage risk. Firstly, when a household burdened with a high mortgage payment has trouble making its monthly payments, it already has the option of refinancing its mortgage (i.e., covering the payments by means of a second mortgage with better terms), and thereby extending the payback period and reducing the monthly payment. Secondly, according to the Bank of Israel Supervisor of Banks data, the longer the mortgage term, the higher the interest rate charged, meaning that the overall burden is greater and the household is exposed to risks such as unemployment and interest fluctuations over a longer period. The

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<sup>18</sup> This restriction is in addition to a May 2011 Supervisor of Banks directive, which limited to one-third the share of the loan that can have interest vary more frequently than every five years.



Supervisor of Banks would do well to focus on limiting the ratio between household income and total mortgage value, and let households strike the balance between mortgage term length and monthly payment rate as they see fit.

## ***5. Taxing Rental Income***

As discussed previously, the rise in housing prices of the last few years stemmed from increased demand due to low interest rates and a preferential taxation structure, as well as to supply-side failures. Addressing the demand side is easier, and will produce results within a shorter time frame.

Since Israel is a small and open economy, local control over interest rates is limited. However, taxation is under greater control. As explained by Sarel (2014), the capital gains tax that was instituted in Israel in 2003 created preference towards real estate investment. Sarel focuses on the advantage that emerged for those living in self-owned properties vis-à-vis renters, and argues that this advantage is the source of heightened demand for residential properties and for the rising price of such properties. This effect ought to have increased the homeownership rate, but that did not occur; rather, the homeownership rate for households in the 25-34 age range (Figures 7 and 9) actually continued its downward trend. As may be seen, Israeli households that have the ability to buy homes do so at high rates, meaning that the additional incentive of a tax advantage vis-à-vis capital market investments did not bring about a change in trend. However, when the choice between investing in the financial market or in real estate is at issue, this advantage turns out to be highly significant.

Real estate investment yields two types of profit: a rise in the value of the asset, on which a betterment tax is charged when the asset is sold; and rental income.<sup>19</sup> At present, rental income, which is concentrated in the

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<sup>19</sup> The betterment tax on the sale of residential properties is merely a supplemental measure, not an alternative to a tax on rental income, inasmuch

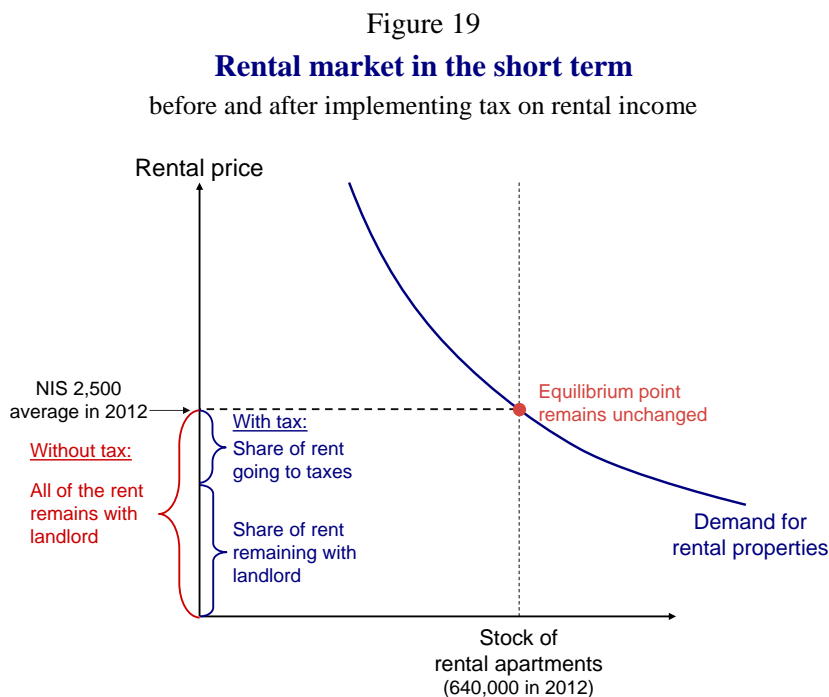
hands of the wealthy (Figure 13), is largely tax exempt,<sup>20</sup> unlike income from labor or financial capital. According to 2012 data – and current figures may be assumed to be higher – there are 640,000 residential units being rented, at an average monthly sum of NIS 2,500. This amounts to NIS 20 billion in rental payments per year, which are taxed at a low rate if at all – since it is unclear to what degree taxation is actually enforced for those monthly rents higher than NIS 5,080. Given that most rental income is concentrated in the hands of high-income households, rental income ought to be taxed at a higher rate. First of all, rental income should be subject to a value added tax. Additionally, it could be argued that this kind of income should be taxed at a fixed rate of 25 percent, like capital gains. Alternatively, rental income could be taxed at the marginal income tax rate of the property owner, as with labor income – which would ease the burden on retired people who derive most of their income from a single rental property. Depending on the taxation approach, it may be estimated that the state is currently foregoing income in the region of NIS 6-8 billion per year. This is a regressive distortion of the tax system, which creates excess demand for real estate assets while amplifying the impact of interest rates on the demand for those assets.

Some might argue that taxing rental income would simply cause landlords to pass their income loss on to tenants, thereby driving rents even higher. This claim, however, does not stand up to close examination; in the short term, rental market supply is rigid, meaning that there is a fixed number of units available for rent, and rents are determined by demand, meaning that landlords are already demanding the highest possible rent that they can get from their tenants (Figure 19).

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as it does not tax rental income. It should be noted, moreover, that its ability to deter long-term investment in residential properties is very limited, since it can be deferred indefinitely, so long as the property is not sold.

<sup>20</sup> Rental apartment income under NIS 5,080 per month (according to 2014 data) is tax exempt.



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Over time, taxing rental income would reduce the supply of rental apartments, since the return on such assets would decline. Rental apartments would not, of course, disappear from the market but would, instead, be sold by investors to households that previously owned no apartments, i.e., to renters (investor-to-investor property sales would not reduce the supply of rental apartments). Taxing rental income would thus decrease both supply and demand in the rental housing market in a balanced manner, without affecting rent levels in the medium term, when investor-owned apartments would be sold (Figure 20).<sup>21</sup> When they

<sup>21</sup> One reservation to be noted is that a tax on rental income, which reduced the demand for residential investment properties, would lead to less housing construction and reduce the supply of rental apartments in the long term.

bought their properties, investors drove less affluent households to the rental market and thus increased the demand for rental housing, meaning that expanding the supply of rental units did not cause rents to drop. Similarly, the sale of investor-owned apartments and a reduced supply of such apartments would not cause rents to rise, since this trend would be counterbalanced by a simultaneous trend toward reduced rental demand. At the same time, the sale of investor-owned residential units would cause prices to drop.

It is clear that today's de facto exemption from tax on rental income is mainly a boon to landlords – who, as Figure 13 shows, already constitute, by and large, a high-income group. This regressive distortion of the tax system benefits the wealthy and raises both demand for housing and housing prices; moreover, it blocks off the rental housing market from companies that specialize in this area because tax-wise, they are disadvantaged vis-à-vis individuals. Companies' income from rental housing is subject to VAT, corporate tax and dividends tax (if paid). This greatly reduces companies' profit margins compared with private landlords and keeps them from competing effectively – despite their importance to the long-term rental market.



Should the state declare its intention to tax rental housing income within the next few years, that in and of itself could foster an immediate drop in the demand for investment properties, as well as in their prices. There can be no doubt that landlords would want to pass the cost of the tax on to tenants but, as noted, their ability to do this would be minimal, since the tax would not directly affect the supply-demand balance in the rental market.

It should, however, be noted that it would not be desirable to impose a rental income tax on households that rent out one apartment while themselves living in another rented apartment, since that would penalize geographic mobility. Additionally, if real estate taxes were to be brought in line with those on financial capital, it would be appropriate to annul the purchase tax.<sup>22</sup>

## ***6. Housing Supply***

In short-term housing market fluctuations, it is demand that dictates prices. By contrast, in the long-term, prices are determined by construction costs, and the likelihood of extreme fluctuations in the form of real estate bubbles or housing market “crashes” is affected by supply elasticity, (i.e., by the rate at which supply increases in response to increasing prices).

Figure 21 presents a clear correlation between housing prices and the number of housing starts in Israel. In the early 2000s, there was a steep decline in housing starts, with approximately 1,000 fewer housing starts per month. The probable cause of this decline was housing market saturation and an expectation that prices would continue to drop for a long time, as they indeed did. It is also likely that the economic crisis set in motion by the Second (al-Aqsa) Intifada also played a role. Housing

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<sup>22</sup> State income from the purchase tax on residential properties amounted to NIS 2.2 billion in 2011 (Ben Naim, 2013). If the purchase tax were annulled, this income would be deducted from the additional revenues anticipated from the tax on rental income.

starts remained low until 2008, when housing prices began to recover – due, as noted previously, to falling interest rates – and this was accompanied by a rise in the number of housing starts, which quickly returned to the early 2000s level. The upward trend was halted, even reversed, in mid-2011. It may well be that the housing protest, which peaked during this period, generated uncertainty and an expectation of lower prices due to government intervention – leading, paradoxically, to a decline in housing starts, which have yet to return to their pre-protest levels. A decline in the planning stock may perhaps also be implicated in the housing-start drop. One way or another, despite an additional rise in housing prices in 2012-2013, the number of housing starts has remained steady – at 3,500 per month, or 42,000 per year.

It should again be clarified that current housing prices, which represent supply-demand equilibrium in the housing market, are a symptom, not the cause, of a problem: excess demand. In competitive markets, a price rise is followed by increased supply, leading to a sufficient increase in the number of apartments in the market and ultimately, in the long term, to a drop in prices to their natural level, close to that of construction costs. The problem starts when supply-side barriers keep housing starts from rising sufficiently, and the supply-demand gap fails to close, prices do not drop, and a vicious cycle begins, culminating in a housing bubble.

Figure 21  
**Apartment prices and housing starts, 2000-2013**



\* January 2000=100

\*\* Monthly figure, seasonally adjusted

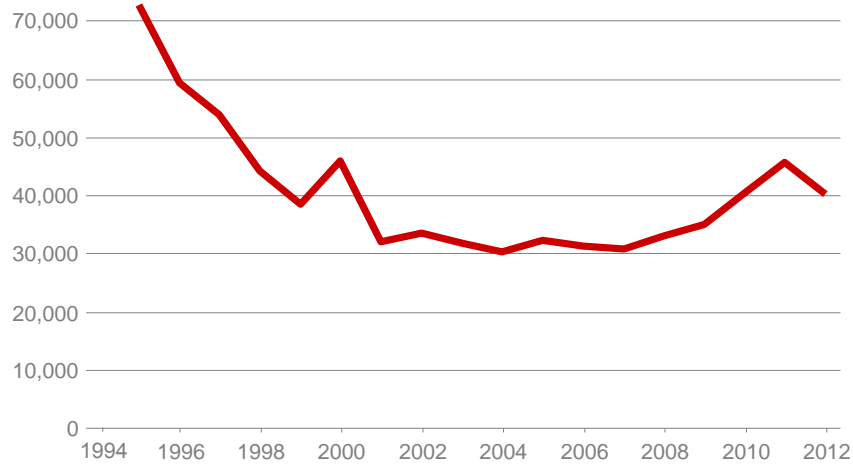
Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics

As indicated by Figure 22, the Israeli economy could build residential units on a much larger scale than it does at present. In the mid-1990s, subsequent to the wave of immigration from the former Soviet Union, the pace of construction accelerated greatly, via both public and private initiatives. In 1995, the construction of nearly 73,000 apartments commenced – a much higher figure than that of 2011, the past decade’s peak housing-start year, when construction began on only 46,000 apartments. If the waiting period for building permits in high-demand areas were shorter, current prices would likely drive construction at a much faster pace, thereby closing the gap between demand and supply and, consequently, bringing prices down.



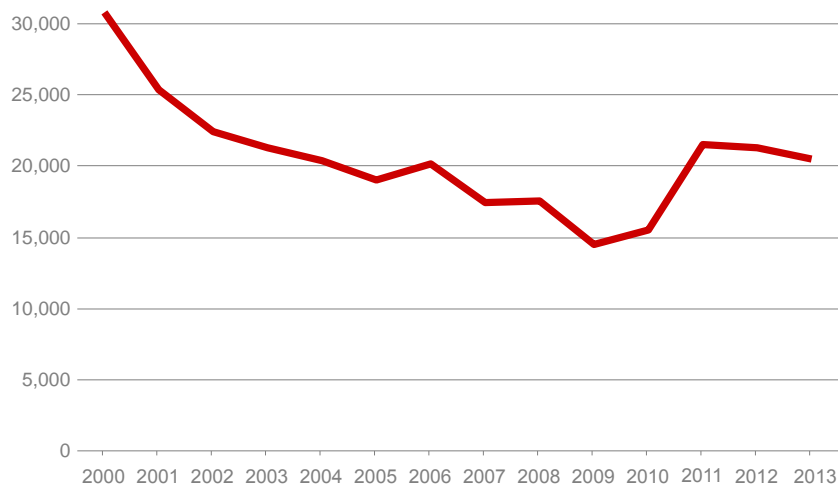
Figure 22  
**Annual housing starts, 1995-2012**



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel  
Data: Central Bureau of Statistics

The supply-demand disparities are also reflected in changes in the stock of new properties, that is, residential units whose construction has been completed but which have not yet been sold – though the relationship is relatively complicated. The existence of housing stock is a function of the time it takes to sell apartments. Thus, the size of the stock is proportional both to the scope of construction and to the pace with which units offered on the market are sold. For example, the drop in demand for housing in the early 2000s led to a decline in the number of housing starts and, consequently, to a gradual contraction of the housing stock – from over 30,000 units in late 2000 to 19,000 at the end of 2005 (Figure 23).

Figure 23  
**Stock of new apartments nationwide, 2000-2013\***



\* Data for December of each year and July for 2013

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

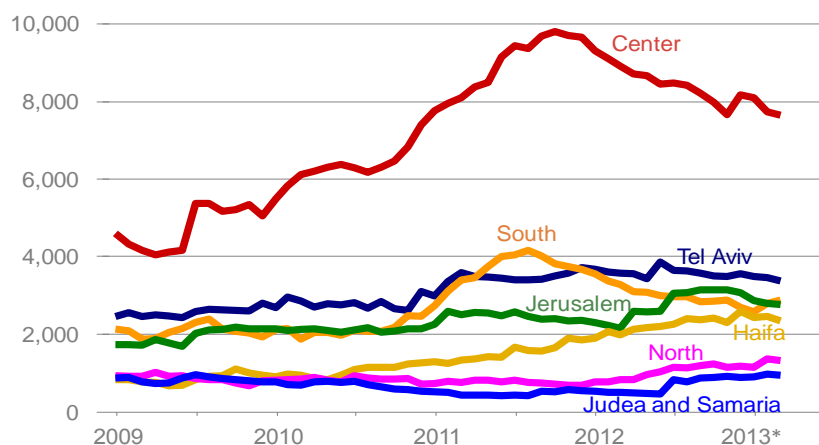
Data: Ministry of Construction and Housing

However, the upsurge in demand that started in 2008 also caused a decline in the housing stock: from 18,000 units in 2008 to 15,000 units in 2009, per Ministry of Construction and Housing data (or to 13,000 units per the Central Bureau of Statistics). The reason for this is that, in the construction field, supply does not increase immediately in response to rising demand, meaning that the extent of construction remains small while the time it takes to sell is shortened. Thus, during 2009-2010, alongside the dramatic rise in housing prices, the stock of residential units contracted to 15,000 – less than half of the stock available at the end of 2000. It is likely that, in addition to the low prevailing interest rates, the limited inventory also contributed to the price increase that took place during this high-demand period. Throughout 2011, when housing prices temporarily stabilized, there was a notable increase of 6,000 in the stock of new units, and the stock has remained at the 21,000-unit level until the

time of this writing. The stable stock of new apartment units over the past three years points to a pace of construction that is successfully meeting demand at current price levels, but is, again, insufficient to bring about a price drop.

The residential-unit stock expansion in 2011 meant a return to the range of the period 2002-2006. The stock gradually grew in all parts of the country, especially in the central district, though some of the impressive increase in central and southern Israel was offset by a decline in the period March 2012 to July 2013, as shown in Figure 24.

Figure 24  
**Stock of new apartments for sale**  
 by district, 2009-2013



\* Data until September 2013

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics

The present period is characterized by relative price and stock stability, notwithstanding the high price levels; this is also reflected in construction company forecasts.<sup>23</sup>

This situation is expected to continue for as long as there is no real change on the demand side – a rise in interest rates or a recession – or on the supply side, that is, the a removal of administrative barriers or massive state construction in high-demand areas. However, the current stability could be misleading, as the rising share of Israeli real estate investors points to a bubble-like dynamic and to a possible price free-fall should the bubble burst and investors try to sell their assets. Alongside the urgent need for a housing price drop, there is also a need for systemic change that would keep the present crisis from repeating itself. Although direct governmental intervention could be justified in light of current prices, it would be preferable for a more elastic supply to keep prices from rising in the first place because, as noted in the introduction, when supply is rigid, the risk of a real estate bubble greatly increases.

## ***7. Limits on Israel's Housing Supply***

The main constraints on the supply side, as reported by construction companies (Figure 4), are a shortage of land on which to build and permit delays; the companies also note, to a lesser degree, a shortage of skilled workers and credit. The land shortage and permit delays are due to a complex bureaucratic structure, over-centralization on the national level, an inherent conflict of interest on the local level, and a high prevalence of condominium apartment buildings.

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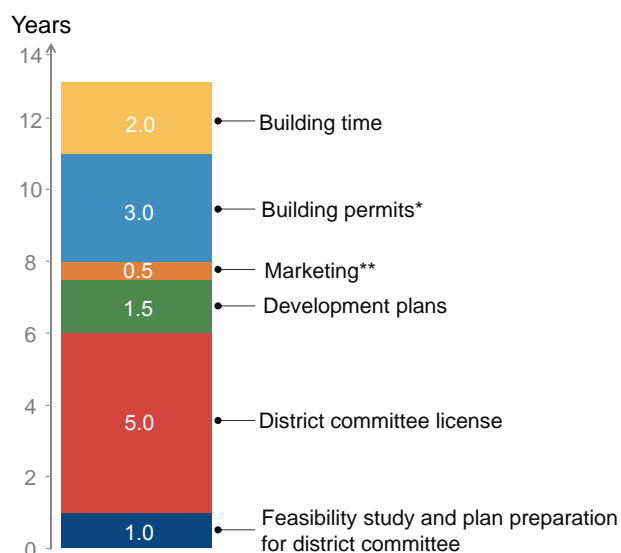
<sup>23</sup> As the Central Bureau of Statistics *Business Tendency Survey* from October 2013 shows, most (75.7 percent) construction companies expected prices to remain the same for the following three months. Of the rest, the share of companies that expected prices to increase (11.3 percent) or increase by a lot (2 percent) was very similar to the share of companies that expected prices to decrease (9.2 percent) or decrease by a lot (1.8 percent).

Figure 25 presents the procedural stages along the way to obtaining a permit for residential construction in Israel. The figure shows that the process in Israel takes, on average, 13 years. Actual construction accounts for two of those years,<sup>24</sup> while the remaining 11 are devoted to bureaucratic proceedings – assuming the construction plans are ultimately approved. The stages that stand out for their length are those of district committee approval (five years on average) and local committee approval (three years on average). By comparison, in most European Union countries, the maximum amount of time needed to obtain a building permit is 8-12 weeks (Pedro et al., 2011). These lengthy wait periods are clearly reflected in the rigidity of the Israeli housing market supply. When the building permit process takes this long, it is not surprising that people have trouble believing that real estate prices will drop in the foreseeable future.

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<sup>24</sup> To compare, according to 2013 data, average construction time in the United States for a building with 20 residential units was a year and a half (U.S. Census Bureau, 2013).

Figure 25  
**Duration of the construction process in Israel**  
 by stages, in years



\* Permit from the local committee

\*\* Tender publication and decision regarding the winner

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

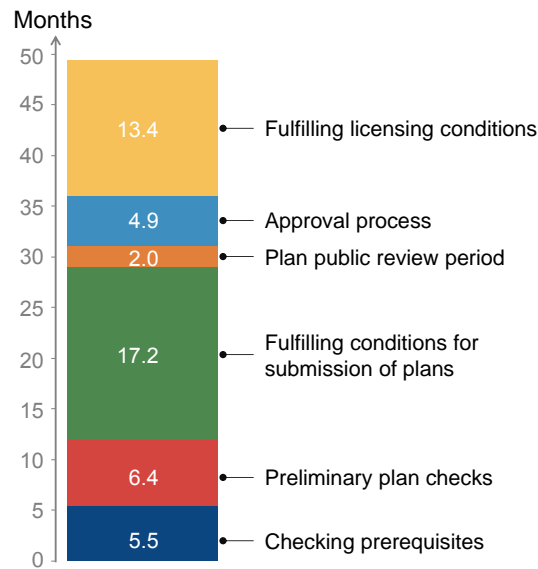
Data: Bank of Israel (2012)

Figure 26 presents the stages leading to district committee approval of a building plan (the five years shown in Figure 25).<sup>25</sup> Most of the delay associated with the district committee is at the stages of fulfilling

<sup>25</sup> As shown in Figure 25, it takes five years on average to obtain district committee authorization, but due to differences between the sources of data on the various stages of the process, Figure 26 shows the length of this stage to be a little over 4 years (49.4 months). Additional data on district committee processes are found in Planning Administration, Ministry of the Interior (2013).

submission conditions (17 months on average) and fulfilling licensing conditions (13 months on average). These delays are due to a broad variety of reasons, the most notable of which are insufficient infrastructure and stakeholder opposition (Han, 2010).

Figure 26  
**Duration of district committee licensing process**  
 by stages, in months



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel  
 Data: Ministry of the Interior (2013)

### *Constraints on the National Level*

On the national level, the state owns – directly or through the Jewish National Fund (JNF) – 93 percent of the country’s land. Out of 22 million dunams,<sup>26</sup> including the Golan Heights and East Jerusalem, 20 million are administered by the Israel Lands Authority and the JNF, while 410,000 dunams represents non-regulated land, that is, land for which no legally-mandated surveying process has been carried out (the latter is also state-owned land). About 7 percent of the country’s land, 1.5 million dunams, is privately-owned (Israel Lands Administration, 2013). Despite the fact that most of the country’s land is state land, 50 percent of construction takes places on private land.<sup>27</sup> On the face of it, there is no lack of land for construction – as evidenced by the fact that urban and rural development reserves in the district outline plans (985,000 dunams) are larger than the country’s built-up area (875,000 dunams), meaning that there is enough land to double the built-up area (Cohen et al., 2010). In reality, however, most of the land available for construction is in the periphery, far from the areas of high demand. Some 63 percent of district outline plan reserves for urban and rural development are in the southern and northern districts (excluding Haifa); by contrast, construction on reserves in the high-demand areas was severely limited by National Outline Plan 35 (NOP, the National Outline Plan constitutes a binding comprehensive framework for plans at the district and local levels, known in Hebrew as TAMA). Among the declared goals of NOP 35 were curtailing suburbanization in the center and populating Israel’s periphery.<sup>28</sup>

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<sup>26</sup> A dunam is a land measurement unit equaling 1,000 square meters.

<sup>27</sup> Some 49 percent of housing starts during January-September 2013 were on State land (Ministry of Construction and Housing, 2013). Part of the reason for the high proportion of construction on private land is the fact that private land is concentrated mainly in the central region, where most demand lies.

<sup>28</sup> Regarding the effort to prevent suburbanization, see Administration of Planning, Ministry of the Interior (2005), p. 163. On limiting construction in the center and populating the periphery, see the same source, pp. 95, 103.



The authors of NOP 35 were unquestionably aware of the need to improve employment opportunities, transportation infrastructure and quality of education in the periphery so as to attract a strong population to these areas,<sup>29</sup> yet chose to disregard the formidable political and budgetary constraints that make these objectives so difficult to achieve. Moreover, by focusing on a long-term vision, the NOP authors chose to ignore the fact that even if the state actually had the financial resources and political will to advance the development of the periphery, the processes involved would extend over varying time periods of unforeseeable length – while restrictions on building would likely exert an impact in the shorter term, causing great hardship to the population in the meantime, as indeed happened. It is also clear that should the aspiration to improve living conditions in the periphery be realized, the periphery would then become more attractive and increase its population share even without the “stick” of construction restrictions in the center. Finally, the authors of NOP 35 gave no consideration to a prediction that came to be fulfilled, namely, that they would ultimately be enriching the owners of real estate in central Israel and making the residents of the periphery poorer by comparison. It is not rare in Israel for people originally from the periphery to live for periods of time in the center of the country, for study or work purposes, and then to return to the periphery. The heightened cost of living in the center relative to the periphery, in which housing plays a key role, undermines the physical and social mobility of those in Israel’s geographic periphery.<sup>30</sup>

The centralized planning process and the state ownership of most available land is usually rationalized in terms of the desire to protect the country’s natural/scenic treasures and agricultural sector, as well as the need to retain land reserves for planning future infrastructure. In reality, Israel’s planning bodies have addressed neither objective, have

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<sup>29</sup> See Administration of Planning, Ministry of the Interior (2005) pp. 124, 172, 216.

<sup>30</sup> In connection to this issue, see Andrews et al. (2011), who find that strict housing policies impair labor mobility.

indefinitely delayed final zoning of most of the land and, in the meantime, have been releasing land for development in very small increments. This is a comfortable arrangement for both the planning bodies and the real estate developers, as it enables the former to retain control over state land while ensuring for the latter, who are already highly experienced in interacting with the planning authorities, reduced competition due to the shortage of land available for construction. The outcome is very high residential density, reflected in a low number of rooms per person by international comparison (Figure 27) – even relative to countries with higher population densities,<sup>31</sup> such as Korea and the Netherlands, or similar population densities, such as Belgium and Japan.

The problematic aspects of state intervention in, and over-centralization of, land management has been clear for some time.<sup>32</sup> The current real estate crisis has put pressure on the establishment to address the dilemma, resulting in the institution of several reforms. In 2012, a streamlining and reorganization process for the Israel Lands Administration began, under which it was accorded “authority” status.<sup>33</sup> Many organizational changes were made to the Ministry of the Interior’s Planning Administration, aimed at accelerating the planning process (Planning Administration, Ministry of the Interior, 2013). A substantive change to the Planning and Building Law – the “pergola reform” – came into effect in August 2014.<sup>34</sup> At the same time, two “bureaucratic bypass” mechanisms were created: national housing committees, a fast-track planning framework within the Ministry of the Interior; and the

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<sup>31</sup> Population density is measured in terms of number of people per square kilometer.

<sup>32</sup> The Ministry of Finance website contained committee reports and research studies on the topic, but the relevant webpage has been removed. A copy is still available at:  
<http://web.archive.org/web/20120128173355/http://www.mof.gov.il/BudgetSite/Reform/Pages/LandsReform2009.aspx>.

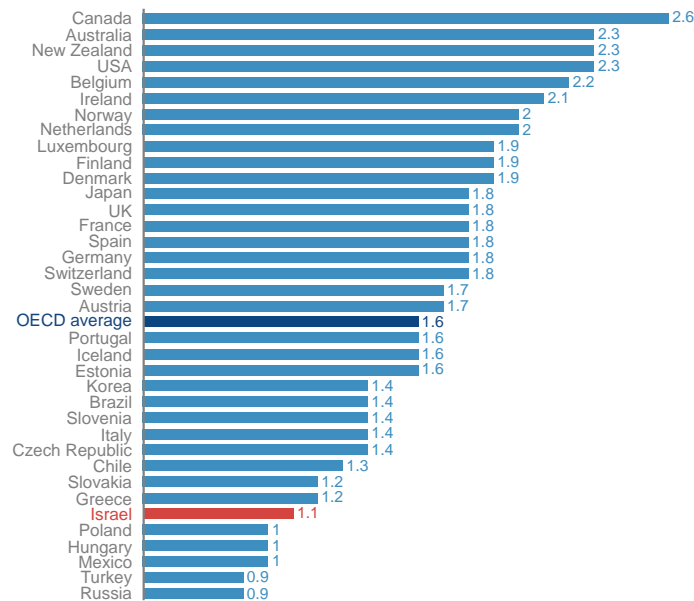
<sup>33</sup> About the transition from administration to authority and its impact, see Israel Land Administration (2013).

<sup>34</sup> For information on the reform, see the Ministry of the Interior website:  
<http://www.moin.gov.il/Subjects/BuildingReform/Pages/default.aspx>.

Committee for the Preferred Housing Program, a trans-ministerial entity authorized to enable quick approval of construction plans on a large scale and to expropriate farmland for development purposes.

Figure 27

### Average number of rooms per person, 2011\*



\* For those countries without data from 2011, the most recent data available was used

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: OECD (2013)

These are welcome measures, but one must be wary of magic bullets. The issue of how to balance the environmental-protection imperative and the needs of the agricultural sector vis-à-vis housing density and the cost of living within Israel's order of priorities is an important one that must not be treated lightly, but rather addressed earnestly and from a long-term perspective. This insight itself should lead us to reconsider the state's role in land ownership and in the initiation and approval of building plans,

since governmental failures in this arena are creating barriers to supply, and the resulting housing bubble and widespread distress could potentially overshadow longer-term considerations and bring about major damage to Israel's natural resources.

### *Constraints at the Local Level*

As noted in the report of the Public Committee to Examine Administrative and Organizational Constraints in the Sphere of Planning and Building (Ministry of the Interior, 2011), and by Han (2010; 2013), national-scale barriers are by no means solely to blame for the limits on Israel's housing supply. Significant constraints exist at the local level and are keeping many projects that have already been approved at the national level from getting off the ground. Barriers affecting Israel's high-demand areas are primarily municipal ones, stemming for the most part from an inherent conflict of interest between developers and local authorities. High-density construction on a massive scale requires suitable infrastructure investment – roads, parking, sewage, educational and health facilities, playgrounds and parks. In the absence of such infrastructure and amenities, construction places a heavy burden on the residential environment, with negative outcomes for both long-time occupants and future residents of the new housing. High-density construction entails great expenditures at the land-unit level, which are by no means covered by development fees and additional property tax revenues, at least in the short term. The state bears responsibility for building or funding some of this infrastructure, but since numerous government bodies have a hand in the various forms of infrastructure,<sup>35</sup>

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<sup>35</sup> These include the Ministry of Construction and Housing, which is responsible for funding infrastructure in localities that rank low socioeconomically; the Ministry of Education, which is responsible for building schools; the Ministry of Transport and Road Safety, which bears responsibility for some transportation infrastructure, such as the interchanges that connect the national road network; the Ministry of National Infrastructure, which is charged with appropriate development of electricity, water and sewage infrastructure; and

delays in the transfer of funds and in infrastructure development are par for the course. In reality, a great deal of the burden falls on the local authorities.<sup>36</sup>

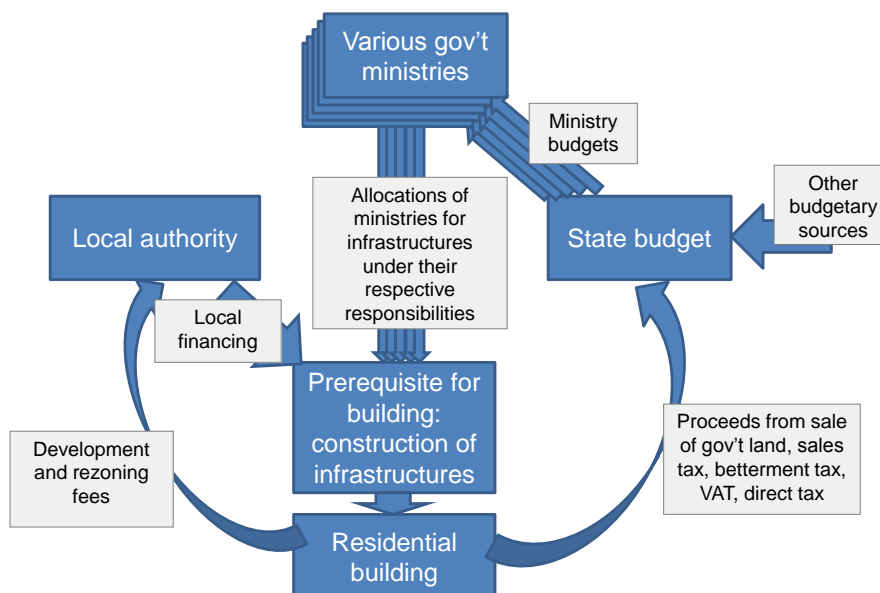
Figure 28 shows that residential construction generates income both for the central government (through the sale of government land and tax revenues), and for local governments (through development and rezoning fees). The central government's land-tax income goes into the state budget, accounting for a relatively small share of total government revenue. From there, the budget is divided among various ministries, which spend it in accordance with their specific priorities. Since the budget of the ministries is not conditional upon the implementation of construction projects, government ministries do not, when formulating their priorities, take into account the income that the state would ultimately receive should the ministries establish the infrastructure they are responsible for and thus enable such projects to proceed. Local government revenues are insufficient to meet the cost of the infrastructure for which localities are responsible and, as noted in the *Report of the Public Committee to Examine Administrative and Organizational Barriers in the Sphere of Planning and Building* (2011), local government is limited in its ability to increase development fees as needed or to require developers to fund infrastructure out of their own pocket. Thus, although real estate development generates considerable revenue for the state, a market failure has emerged in which this revenue is not being channeled efficiently toward the establishment of infrastructure that would facilitate such development.

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the Ministry of Health, which is responsible for increasing the capacity of existing health facilities and creating new ones.

<sup>36</sup> This is especially evident when one looks at the burden on pre-existing infrastructure near new residential projects. Construction of a new neighborhood will, for example, increase traffic on the roads leading to it – which often pass through older neighborhoods.

Figure 28  
**Infrastructure budgeting process for residential building**



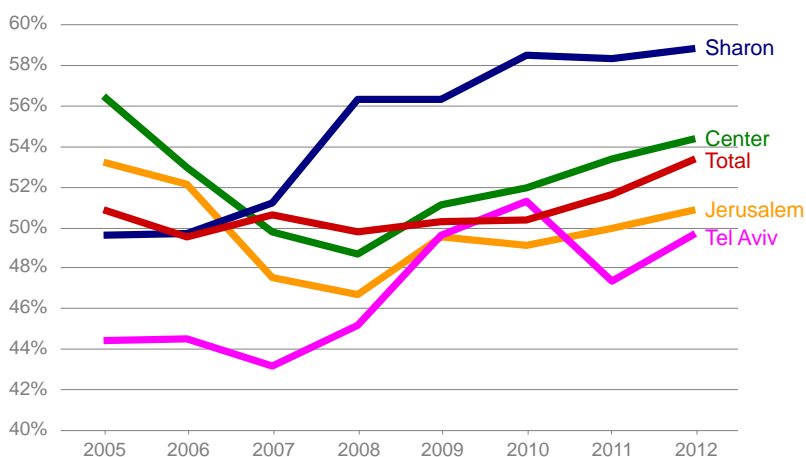
Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

The outcome is a conflict of interests between the developer who wants to build and earn a profit – especially when housing prices are high – and the local authority, which has no way of passing on to the developer the costs that development imposes upon it. This state of affairs is highly reminiscent of a market failure due to the existence of a negative externality, but with this difference: if the tax receipts generated by real estate development were used to fund the necessary infrastructure, the local authority would be spared many costs and delays and market failure would be prevented.

Under the current circumstances, it is hardly surprising that many Israeli mayors have no desire to significantly increase the population of their cities. It is in the local authority's interest to keep high-density

development at bay while pursuing an opposite course – that of increasing municipal revenue by encouraging the construction of low-density luxury housing and commercial and industrial projects, which require little in the way of infrastructure investment but generate more property-tax revenue. As shown by Eckstein et al. (2012), the price per square meter of commercial or industrial space has barely risen over the past decade, and stands at about half the level of residential prices. Since the construction inputs are very similar, the explanation for this huge gap is the local authorities' tendency to prefer commercial and industrial land uses for approval. Another testament to local authorities' interest in curtailing high-density construction is the rise in the price of small apartments relative to large ones (Figure 29).

Figure 29  
**Prices of 2.5-3 room apartments  
 relative to 4.5-5 room apartments**  
 owner-occupied apartments, by region, 2005-2012



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics

In recent years the share of small apartments in the construction mix has dwindled greatly. The fact that their relative price increased while their share in the construction mix declined points to constraints on the supply side – local authorities simply are not interested in such projects and thwart their approval by the local committees. If the decline in small-unit construction were due solely to falling demand for this housing type, one would expect the price of small apartments to drop vis-à-vis large apartments.

Israel's ministries are well aware of these problems, and in order to foster large-scale residential construction, they have reinstated what are called “blanket agreements” – agreements between government ministries, first and foremost the Ministry of Finance, and the local authorities on whose land projects are slated for construction.<sup>37</sup> Via these agreements, the state provides generous funding on the order of billions of shekels, to establish needed infrastructure even before projects commence. The relevant government ministries commit to laying the infrastructure for which they are responsible by a predetermined date, and in return, the local authority commits to advancing the project without delays. Blanket agreements of this kind are in place for Kiryat Gat (7,000 residential units), Modi'in-Maccabim-Re'ut (11,800 residential units), and Rosh Ha'Ayin (15,700 units), while agreements regarding construction on a similar scale are slated for Kiryat Bialik, Rishon LeZion, Herzliya, Yavne, and Beer Sheba.<sup>38</sup> In the negotiations regarding a given project's size, density and the amount of government funding to be provided, local authorities are, of course, interested in limiting the extent of building and in increasing the amount of government funding (Bouso, 2014b; 2014c). Government funding for the blanket agreements is supposed to be repaid, at least partially, in the form of state revenue

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<sup>37</sup> See a detailed discussion on the Israel Lands Authority website: <http://www.mmi.gov.il/shivukweb/pages/mainProject1.html>.

<sup>38</sup> See Ministry of Construction and Housing press release of February 4, 2014: <http://www.moch.gov.il/Spokesman/Pages/DoverListItem.aspx?ListID=5b390c93-15b2-4841-87e3-abf31c1af63d&WebId=fe384cf7-21cd-49eb-8bbb-71ed64f47de0&ItemID=567>.



from the land sales and from taxes paid on the sale of the final product. It can be said that under blanket agreements, the money travels a long, circuitous route, from real estate transactions to the state coffers and back to funding the needed infrastructure; along the way it provides employment within the government apparatus.

The blanket-agreement framework is one way of resolving the conflict of interests that exists between the developer and local authority, as the additional funding covers the cost of building infrastructure; however, this is a crisis measure. Blanket agreements entail large advance expenditures on the part of the state, which can be expected to make such commitments only when housing prices have spun out of control and public pressure is sufficiently strong. Furthermore, the framework is suited specifically to large-scale projects. For many small transactions, the need to coordinate between the various government ministries and to negotiate with the local authorities would still result in major delays.

In reality, competition is emerging between local authorities, which want to increase their share both of industrial/commercial development and of low-density luxury housing aimed at attracting the affluent. Local authorities have an incentive to reduce their share of high-density housing and small apartments, as that would keep weaker populations away. The conflicting interests of developers (who want to build high-density housing in high-demand areas, so as to extract more profit from the same land area), and of local authorities (which oppose this kind of building due to its infrastructure demands) are a recipe for corruption in the form of permit-buying, meaning that some developer profits find their way to the private pockets of planning committee members rather than to funding needed development. Local authorities should be in competition with each other to attract developers, but under the current circumstances, it is actually the developers who compete for limited building-permit quotas. The outcome is curtailed construction, insufficient infrastructure and corruption.

Rather than funds meandering through the complex channels of government bureaucracy before finally returning to the localities as development budgets (in the best-case scenario), or finding their way, as

they often do, into the pockets of the local-authority functionaries who control the various processes involved in approving projects, local authorities ought to be allowed to directly and transparently impose higher development and rezoning fees and taxes upon all land-sale transactions that have been approved for construction,<sup>39</sup> while the amount of tax revenue collected by the central government should be reduced. This would increase local-authority motivation to advance real estate transactions, especially for high-density construction. Moreover, because real estate values are directly linked to the quality of local infrastructure, this would create another incentive for local authorities to improve infrastructure that lies within their jurisdiction, so as to increase their tax revenue from real estate. The competition that would emerge between local authorities for construction projects is what would limit the amount of the fees being charged.<sup>40</sup>

This approach makes blanket agreements superfluous, is also well-suited to small-scale projects, works in reaction to demand change and without involvement of the central government, and has the potential to improve municipal infrastructure quality. The budgetary cost is minimal, given that the funds in question are already meant to be invested in infrastructure development, with the state transferring its responsibility to the local authority. Concentrating responsibility for all types of local infrastructure in the hands of a single entity – the local authority – would streamline and accelerate the process, and would free central government bodies to address infrastructure on a national scale. One way of making this happen is to transfer the property rights to land in their jurisdiction to

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<sup>39</sup> As the Ministry of the Interior has indeed proposed, in a planned continuation of the Planning and Building Law reform (the Pergola Reform). See Bousso (2014d).

<sup>40</sup> Clearly, the more in-demand local authorities would be able to charge higher development and betterment taxes. This raises concerns about a poverty trap, in which weaker local authorities are unable to improve their infrastructure and attract stronger populations because they cannot impose fees at a meaningful level. The central government could assist local authorities in this situation by means of balancing grants.

the local authorities, and to enable them to use revenue from land development for infrastructure-building, after taxes have been paid to the state. Local authorities should not be allowed to increase their development fees without a corresponding state renouncement of its land-development revenues, since that would constitute an additional tax on real estate projects and impair their feasibility.

### *Constraints to Urban Renewal*

Israel's urban landscape has enormous potential for renewal and densification. Replacing old, neglected 2-4 story buildings with modern, higher-occupancy buildings would greatly increase the housing supply in high-demand areas. At the same time, residents would benefit from living in state-of-the-art, technologically-advanced living environments featuring modern architectural design – and all without appreciably harming the environment. Given both the enormous demand for urban housing and the concern that large-scale construction in Israel's open areas could be environmentally detrimental, urban renewal (encompassing urban densification) would appear to be the perfect solution. In reality, however, construction based on existing buildings (NOP 38 and “vacate-and-build” or *pinui-binui*) accounted for only a small proportion of total residential construction during the period 1997-2008, at a national average of 4 percent (Cohen et al., 2010).

Two main barriers stand in the way of urban renewal and are responsible for the current situation. The first is municipal opposition due to the burden on infrastructure as discussed. Boosting density within urban boundaries entails a corresponding investment in infrastructure, which is especially difficult and expensive to install in already built-up areas. Here as well, if local government's share of direct income from renewal projects were to be increased at the expense of central government revenues, one would expect projects to go forward much more quickly. Moreover, in areas that are especially dense such as Gush Dan (Tel Aviv metropolitan area), major improvements to the transportation infrastructure are needed (e.g., subways) so as to facilitate

additional large-scale construction. The second barrier is the high prevalence of cooperative housing in Israel. Cooperative buildings pose the problem of multiple rights to a single property; because the consent of multiple unit owners is needed, it is hard to advance redevelopment projects. In many situations, a conflict arises between the general good – that of most residents, not to mention the national interest in urban renewal and a larger housing supply – and individual rights, since for certain residents the envisioned transaction might be undesirable. Also, when unanimous consent is required, there is sometimes a temptation to be the lone holdout, so as to extort better conditions for oneself, in exchange for one's consent. This is a challenge faced by cities around the world where condominium living is common, but the situation in Israeli cities is particularly acute.

The first attempt to address the problem was part of an effort to rehabilitate poor and disenfranchised neighborhoods. Within the framework of the Building and Vacating of Renewal Areas Law (1965) an unsuccessful attempt was made to evacuate poor neighborhoods by force. On the basis of this law, a vacate-and-build mechanism was created in which the Ministry of Construction and Housing designates a site for redevelopment, with the residents being eligible, via a supermajority (currently 80 percent), to accept a developer's proposal to tear down the building and erect another in its place. The specific terms of the deal are determined through negotiation between the developer and the residents, but in most cases, the transaction would promise each apartment owner in the building a new and larger unit to be built within three years, with the developer paying the residents' rent during the construction period. In 2006, the Vacate and Build (Compensation) Law was passed, making holdouts responsible for compensating their fellow residents for the financial harm caused by delaying redevelopment, should their refusal be deemed inappropriate.<sup>41</sup> The vacate-and-build mechanism was not very

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<sup>41</sup> For more information, see the Ministry of Construction and Housing website: [http://www.moch.gov.il/shikum\\_vehitchadshut/hitchadshut\\_ironit/Pages/dayy\\_arim\\_sarvanim.aspx](http://www.moch.gov.il/shikum_vehitchadshut/hitchadshut_ironit/Pages/dayy_arim_sarvanim.aspx).

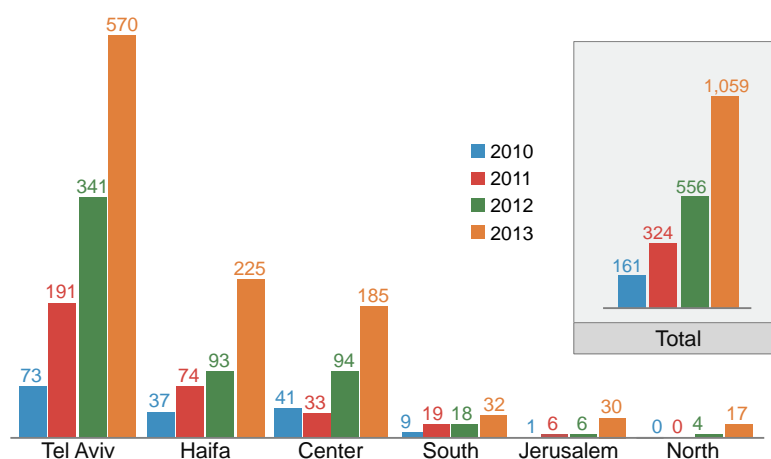
successful, due to bureaucratic red tape. As with new construction, cities have little interest in advancing projects of this kind due both to the pressure they put on infrastructure, and to their cumbersome nature. Residents have to move homes twice – from the building designated for demolition to a rental apartment and then to the new building on the original site – while the developer has to pay the residents' rent during the interim period – a burden that makes the project less feasible for the developer.

NOP 38 is another mechanism for urban renewal in a condominium framework. The plan was intended to facilitate the reinforcement of older buildings against earthquakes. According to the original plan (38/1), residents are eligible to hire a developer to renovate an old building (one built before 1980) that is not earthquake-resistant, reinforce it, add a “safe room” to each apartment and make the building accessible by installing an elevator. In return, the developer receives the right to add units to the building. At first, rights were granted for a single additional story, but the passing of Amendment 3 to the NOP (38/3) expanded the entitlement to 2.5 stories. NOP 38/1 requires a majority of only 66 percent of residents in order to implement a project. This mechanism (38/1, Reinforcement of an Existing Building) bypasses the complications inherent in the vacate-and-build model, as residents need not move to rented apartments and then return. They are, however, obliged to live for significant periods of time in a construction site – itself a heavy price to pay. The ability to add stories is limited as well, both by the NOP regulations and by the existing building's limited stability, lot size, and the local infrastructure's capacity.

In recent years, as housing prices have soared, NOP 38 projects have become more common (Figure 30). It is not surprising that most NOP 38 projects are concentrated in high-demand areas – more than half of them in the Tel Aviv district – since the feasibility of such projects for developers depends on the value of the new apartments that will be available to them in the buildings. Clearly, NOP 38 is insufficient as a means of reinforcing buildings against earthquakes, as there is no financial incentive to implement the program in Israel's periphery; by

contrast, it has advantages as a mechanism for urban renewal and for increasing the supply of apartments in high-demand areas.

Figure 30  
**Number of applications for National Outline Plan 38**  
 by district, 2010-2013

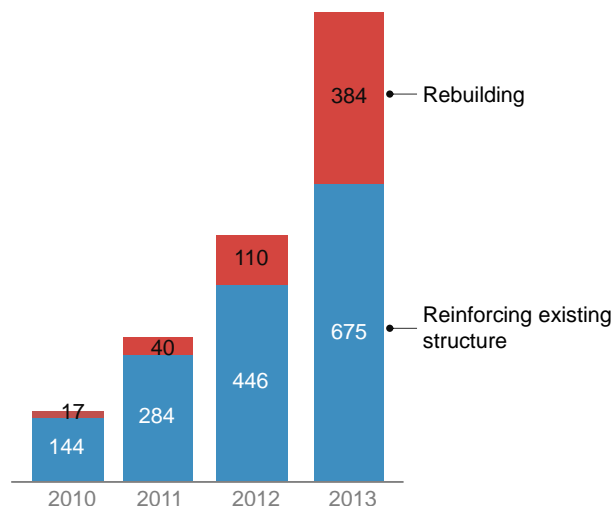


Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Ministry of the Interior

Another amendment to NOP 38 (38/2) provides the option of tearing down a building and erecting another in its place – a kind of fast-track, small-scale, vacate-and-build mechanism. In this instance as well, as in the original vacate-and-build mechanism (not within the framework of NOP 38), an 80 percent majority of residents is required. Figure 31 presents the distribution of NOP 38 requests by the share of requests referring to Amendment 38/2 (demolition and rebuilding) versus those referring to Amendment 38/1 (reinforcement of an existing building).

Figure 31  
**Number of applications for National Outline Plan 38**  
 by application type, 2010-2013



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel  
 Data: Ministry of the Interior

Despite the growing number of urban renewal projects, the potential is clearly far from having been exhausted. Recently, a problematic proposal by the 90-days housing team<sup>42</sup> for yet another type of urban renewal was approved – “build-vacate-build.” This is a multi-stage exchange deal in which a new building is constructed on vacant land, the residents of an old building move into it, a new building is erected in place of the old one

<sup>42</sup> An inter-ministerial government team charged with addressing the housing problem, established at the beginning of the present administration.

and so on.<sup>43</sup> This mechanism is meant to spare the residents of the older building the move to a rental apartment during the interim period and thereby raise their consent rate, while also increasing the project's feasibility for the developers. However, the mechanism's complex nature would require the government to play a dominant role, to the point of taking on the developer function. Moreover, the exchange transaction's serial character would greatly limit the scale of construction, as it would be impossible to tear down a building and construct another in its place until the new apartments were ready for the old building's residents.

A simple alternative to these awkward barter transactions would be to let residents of the old building decide, by supermajority, to sell the building to the developer as is. This would enable them to buy apartments of their own choosing, without any interim rental period. In such a transaction, the developer would not have to cover anyone's rent, meaning that he could pay a higher price for the old building. Moreover, it would not be necessary to wait until one building had been completed in order to tear down the next, as in the build-vacate-build model; it would be possible to demolish and erect several buildings simultaneously, in accordance with demand. This option does not undermine individual rights, as the sale requires a supermajority, just as in the regular vacate-and-build mechanism. The option is already being implemented in several places where condominium living is prevalent. For example, in Singapore, 90 percent of whose residents live in condominiums, a resident supermajority of 90 percent is needed to sell an apartment building that was built within the last 10 years, and an 80 percent supermajority is required for the sale of an older building.<sup>44</sup>

To conclude, the cumbersome nature of today's vacate-and-build mechanisms constitutes a barrier to urban renewal and to enlarging the

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<sup>43</sup> For details on the program, see the following Ministry of Construction and Housing press release:

<http://www.moch.gov.il/Spokesman/Pages/DoverListItem.aspx?ListID=5b390c93-15b2-4841-87e3-abf31c1af63d&WebId=fe384cf7-21cd-49eb-8bbb-71ed64f47de0&ItemID=551>.

<sup>44</sup> See: <http://www.mnd.gov.sg/stb/typesofapplicationannex1.html>.



housing supply in built-up areas. Two recommendations whose adoption would greatly facilitate urban renewal – a process that is also important in terms of enhancing housing-supply flexibility in response to price changes are: (1) transferring a portion of vacate-and-build transaction profits to the local authority where the project is being carried out, for purposes of infrastructure improvement as needed to support the increased density; (2) giving residents of condominium buildings the right to sell the entire property to a developer via a supermajority, while imposing a defined legal responsibility on holdouts.

Table 1. **Supermajorities required for the sale of a cooperative building, international comparison**

<b>Location</b>	<b>Supermajority required for sale</b>
Alberta, Canada	75%
Guangzhou and Shanghai, China	66.7% of owners accounting for 66.7% of the property
Hong Kong, China	80%
Japan (except Tokyo)	80%
New South Wales, Australia*	66.7%
New York City and Washington D.C.	80%
New Zealand	75%
Singapore	90% for buildings up to 10 years old 80% for buildings older than 10 years
Taipei, Taiwan	<b>Urban development fast track area:</b> 50% of owners accounting for 50% of the property <b>Urban development priority area:</b> 60% of owners accounting for 66.7% of the property <b>Other areas:</b> 66.7% of owners accounting for 75% of the property
Tokyo	66.7%

\* Proposed legislation

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Legislative Council Secretariat, 2010; New South Wales Ministry of Fair Trading, 2013

## ***8. Summary and Conclusions***

Israel in 2014 is more polarized than ever between rich and poor, between the haves and the have-nots. Those who own residential properties – especially older and higher-income households – have benefited in recent years from an impressive rise in property values; some have invested a portion of their financial assets in real estate so as to benefit even more from the price hike. By contrast, those who do not own apartments – mainly younger and lower-income households – have been forced to choose between burdensome mortgages and soaring rents that take up a large share of their income, making it hard for them to save and turning the idea of a home of their own into a distant dream. Continuation of the price rise would further exacerbate the economic disparities between rich and poor and between the younger and the older generations. However, should prices drop precipitously – should the housing bubble burst – the outcome would not be entirely positive; non-homeowning households would benefit, but households that had invested in residential units would be hurt, as would construction companies and construction-sector workers. In an especially undesirable scenario, it would even undermine the stability of the banks and of the Israeli economy as a whole – as happened with the last recession in the United States.

The initial cause of Israel's housing price surge was the low interest rates that were instituted in the wake of the global economic crisis. A small and open economy such as Israel's cannot deviate far from the international interest-rate environment without suffering from dramatic changes in the exchange rate. Like other economies worldwide that were not affected by the recession but were, however, forced to drop their interest rates, Israel also experienced a rise in the prices of yield-bearing assets, including real estate. However, the extent of the housing price increase and the fact that it is still going on may be attributed both to a tax regime that favors real estate investment (which has intensified the effect of lower interest rates on housing-market demand), and to rigid constraints hindering expansion of the housing supply.

In order to address the present real estate price bubble in the short term, the existing tax system distortion must be corrected, and income from rent and income from financial assets must be taxed equally. More equal taxation would reduce the demand for real estate investment properties and enable companies specializing in rental apartments to enter the market – thereby developing a supply of long-term rental units.

In the long term, in order to reduce housing prices, curb volatility and keep new housing bubbles from forming, a systemic approach should be taken to supply-side constraints.

On the national level, state control of land and a highly-centralized planning process have made Israel's residential density one of the highest in the developed world. The state should relinquish control of the nation's land, and retain only those areas slated for infrastructure development on a national scale or that are crucial for protecting the country's natural resources.

In the local arena, the high cost of infrastructure development causes local authorities to oppose high-density construction, which is costly for them. Resources, expenditures and power should therefore be concentrated at the local level; local authorities should become "one-stop shops" for all aspects of land development, leaving central government entities responsible only for supervision and coordination on a national scale. A framework in which the power to approve development, the income from development and the responsibility for establishing suitable infrastructure are all concentrated in one place would help shorten the bureaucratic process and accelerate construction in response to rising demand.

In addition to these supply barriers, the condominium buildings that are very common in Israel constitute an impediment to urban renewal, a process that has the potential to greatly increase the housing supply in high-demand areas. Urban densification through vacate-and-build projects or through the reinforcement and expansion of existing buildings (NOP 38) cause considerable disruption to residents who must either rent apartments while the new building is being constructed (vacate-and-build) or live in construction sites for extended periods (NOP 38/1). For

many residents, especially the elderly and people with disabilities, this is not feasible. It is therefore recommended that another option be created, that of selling a building via resident supermajority – a system that is employed in many places around the world where condominium living is prevalent. The legal infrastructure for vacate-and-build could be adapted to such a framework, which calls for a supermajority decision and the assignment of legal responsibility to holdout residents. Moreover, if meaningful urban densification is to happen in Gush Dan, Jerusalem and Haifa, an efficient and accessible public transit system suited to the density and needs of the population must be created.

Finally, Israel must invest in improving education and job opportunities in the periphery and in connecting the periphery to existing urban centers by means of appropriate transportation infrastructure. Care must be taken not to repeat the unfortunate mistakes of NOP 35, which aspired in vain to strengthen the periphery by limiting the housing supply in central Israel.

The current housing crisis has generated an array of policy initiatives. Some are worthwhile measures that aim to resolve various housing-supply bottlenecks (e.g., reforms relating to the Israel Land Authority the Administration of Planning and building law). Other measures are marred by high costs and dubious benefits. The plan calling for zero VAT on apartments for young households may be seen as a legitimate political decision, one that takes an affirmative-action approach toward young non-homeowners vis-à-vis older people upgrading their housing and real estate investors. However, this program does not address barriers on the supply side, meaning that it is not a useful means of bringing the present crisis to an end or of preventing the next crisis. Moreover, in circumstances of rigid supply, a major portion of the VAT discount would ultimately, in all likelihood, reach the pockets of developers.

In contrast to the zero-VAT program, the target-price program (in which the government grants land at a discounted price to developers, who in turn pledge to sell residential housing at a discount relative to local market prices) has no political-ideological justification; its sole purpose is to generate competition between contractors that would

translate into lower prices for buyers. However, there is great concern that lower prices would come at the expense of construction quality and amenities. It is unlikely that this artificial mechanism, which seeks to mimic competition via bureaucratic means rather than by removing the obstacles that inhibit it, will be of any real use.

The current housing crisis is not a matter of fate. Limiting demand by means of a tax on rental income, while also removing constraints on the supply side, would help bring prices down, improve construction quality and keep similar crises from occurring in the future. The housing question has to be addressed carefully and in depth, as measures that would result in poor-quality construction, with no provision for suitable infrastructure or preventing environmental damage, would do more harm than good.

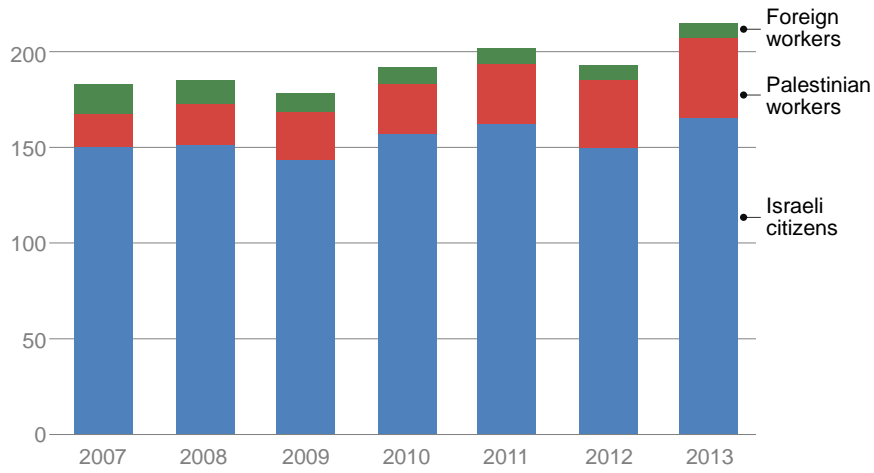
## *Appendix*

### *Training Workers for the Construction Industry*

As noted, the recent increase in housing prices was not caused by a labor shortage, but rather by a rise in demand coupled with a rigid supply of land approved for development. Nevertheless, the growing scope of construction has brought about a concomitant rise in the demand for skilled labor, meaning that a potential shortage of workers would slow the pace of development and cause a further surge in housing prices.

The construction industry bears a stigma, especially in the eyes of Jewish Israelis, and this state of affairs tends to be taken as a given. Raising the quota of foreign laborers and Palestinian workers is consequently thought of as a necessary evil, one that cannot be avoided if the pace of construction is to be accelerated (Appendix Figure 1). Scholars have already noted the absurdity of a situation in which Israel – a country that has an overabundance of low-skilled workers – must import more and more such workers (Ben-David, 2013). There are objective reasons why jobseekers are deterred from entering the construction industry, and Israel needs to address them, rather than continuing to rely on labor migration and on Palestinian workers.

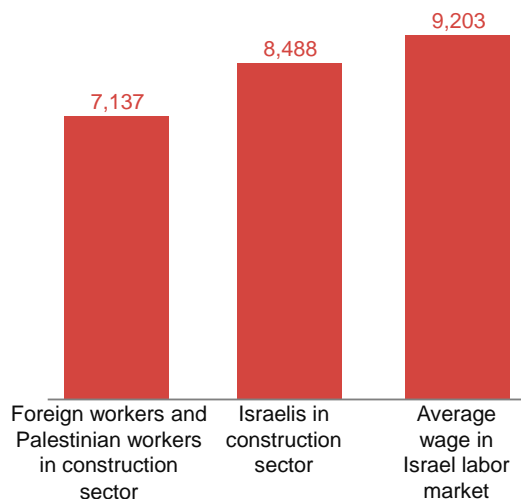
Appendix Figure 1  
**Official number of employees in the construction industry**  
 in thousands, 2007-2013



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel  
 Data: Ministry of Construction and Housing (2013)

There are a number of factors behind Israeli jobseekers' aversion to entering the construction industry. Firstly, as shown by Appendix Figure 2, the wages in this sector are below average.

Appendix Figure 2  
**Average monthly wage for construction industry employees**  
in shekels, 2013



Source: Noam Gruber, Taub Center for Social Policy Studies in Israel  
Data: Ministry of Construction and Housing (2013)

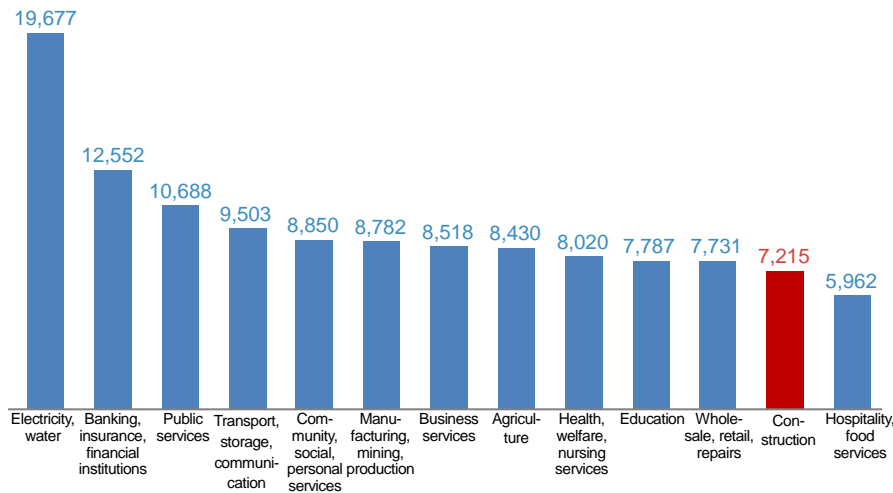
Appendix Figure 3 presents the mean wages of a range of sectors for males with 11-12 years of schooling. For this segment of the population, construction-industry wages are higher only than those of the hospitality and food services industry.

These low wages reflect productivity levels (output per work hour) in the construction industry; productivity is low compared both to other sectors in the Israeli economy and to the construction industry in European countries (Ben-David, 2013). Productivity is low because Israel relies on low-wage labor rather than investing in automation of the sector and in advanced construction technologies.



Appendix Figure 3  
**Wages for full-time employed men\*, 2012**

average monthly wage, in shekels, by sector,  
 men with 11-12 years of schooling



\* Not including foreign and Palestinian workers

Source: Noam Gruber, Taub Center for Social Policy Studies in Israel

Data: Central Bureau of Statistics, *Business Tendency Survey*

There appear, however, to be other major factors besides the low wages that make employment in construction so unattractive: (1) Construction industry work generally takes place in difficult physical conditions and involves significant risk of injury or even death;<sup>45</sup> (2) The construction industry also has the negative image of an unregulated industry, major segments of which operate as part of the shadow economy, meaning that no social benefits are offered to workers;<sup>46</sup> and

<sup>45</sup> Over half of work-accident fatalities in 2012 were in the construction industry (Occupational Safety and Health Administration, 2012).

<sup>46</sup> It should be noted that informal labor does not benefit the unskilled worker – who in any case would be paying low taxes but would at least benefit from

(3) The sector lacks a clear, recognized career-advancement path, from laborer to skilled worker or foreman.

Low wages, physically-demanding work, limited protection in cases of work-related disability – especially in informal employment environments – and unclear career advancement opportunities all deter people from seeking work in construction and give the industry a negative public image.

The challenges faced by the government are therefore many:

- Encourage automation of the construction industry, which is expected to increase the sector's productivity and mean wage while also helping to ease the physical labor aspect of construction work.
- Reinforce safety supervision and eradicate the plague of informal labor in the industry, so as to lower the risks involved in construction work and improve workers' level of social protection.

Subsidize in-service training for workers in the sector, based on seniority; this would enable the construction workforce to advance and professionalize. Despite both worker and employer demand, prior efforts to train Israelis failed, due mainly to a lack of long-term commitment on the part of the state to reduce reliance on imported labor in the sector, and to an increased supply of Israeli workers (Heruti-Sover, 2014). Special note should be taken of the potential for workers among the Haredi (ultra-Orthodox) community, which has trouble finding work in other industries due to lack of suitable education (Regev, 2013). A new program to train Haredim for the construction industry was launched not long ago at HaBonim College in Ashdod, and the hopes are that this program and others like it will be able to bridge the need for paid employment among Haredim with the growing demand for construction workers, while enabling Israel to break its dependence on migrant labor and Palestinian workers (Glick, 2014). Consideration could also be given to recognizing construction work and other necessary occupations as a form of civil

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social protection if his employment was official – but rather his employer, who conceals his activity and evades tax on his profits.

service that, for some sectors of society, could be an alternative to military service (Gruber, 2012).

Israel's construction industry has relied for many years on cheap labor – at first on Palestinian workers and later on foreign workers as well. The industry should be weaned from this harmful dependence. Other countries' experience indicates that investing in automation and switching to technologically advanced construction methods hastens the building process, improves construction quality and ultimately increases labor productivity – a positive development that would drive wages higher. The Israeli government should consistently strive to reduce the number of foreign workers in the industry (even in the face of pressure from construction companies), ensure proper supervision and safeguarding of worker safety and rights, and subsidize vocational and in-service training in the construction industry.

## References

### English

- Andrews, Dan and Aida C. Sanchez (2011), “The Evolution of Homeownership Rates in Selected OECD Countries: Demographic and Public Policy Influences,” *OECD Journal: Economic Studies*.
- Andrews, Dan, Aida C. Sanchez, and Åsa Johansson (2011), *Housing Markets and Structural Policies in OECD Countries*, OECD Economics Department Working Papers, No. 836.
- Ben-David, Dan (2013), “Labor Productivity in Israel,” in Dan Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy in Israel 2013*, Taub Center for Social Policy Studies in Israel, pp. 95-116.
- Caldera Sanchez, Aida and Åsa Johansson (2011), *The Price Responsiveness of Housing Supply in OECD Countries*, OECD Economics Department Working Paper No. 837.
- Glaeser, Edward L., Joseph Gyourko, and Albert Saiz (2008), “Housing Supply and Housing Bubbles,” *Journal of Urban Economics*, 2, No. 64, pp. 198-217.
- IMF (2014), *IMF Country Report*, No. 14/48.
- Legislative Council Secretariat (2010), *Fact Sheet - Collective Sales in Singapore, Legislative Council of Hong Kong*, Fact Sheet 29/09-10.
- New South Wales Ministry of Fair Trading (2013), *Strata Title Law Reform, Position Paper*, [fairtrading.nsw.gov.au/biz\\_res/ftweb/pdfs/About\\_us/Have\\_your\\_say/Strata\\_title\\_law\\_reform\\_position\\_paper.pdf](http://fairtrading.nsw.gov.au/biz_res/ftweb/pdfs/About_us/Have_your_say/Strata_title_law_reform_position_paper.pdf).
- OECD (2011), “Housing and the Economy: Policies for Renovation,” *Economic Policy Reforms 2011 - Going for Growth*, OECD Publications.
- OECD (2013), *How's Life? 2013: Measuring Well-Being*, OECD Publishing.
- Pedro, João Branco, Frits Meijer, and Hans Visscher (2011), *Comparison of Building Permit Procedures in European Union Countries*, Royal Institution of Chartered Surveyors, Conference Paper.

Regev, Eitan (2013), "Education and Employment in the Haredi Sector," in Dan Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy in Israel 2013*, Taub Center for Social Policy Studies in Israel, pp. 119-162.

Shalev, Michael (2012), "The Economic Background of the Social Protests of Summer 2011," in Dan Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy in Israel 2011-2012*, Taub Center for Social Policy Studies in Israel, pp.161-220.

US Census Bureau (2013), *Online Database*, [census.gov/construction/nrc/lengthoftime.html](http://census.gov/construction/nrc/lengthoftime.html).

### *Hebrew*

Administration of Planning, Ministry of the Interior (2005), *TAMA 35 – Main Points*.

Administration of Planning, Ministry of the Interior (2013), *Annual Planning Report 2012*.

Bank of Israel (2012), *Annual Report*.

Bank of Israel (2013), "Patterns of Flat Purchase by Local Investors 2003-2012," *Economic Developments in the Past Few Months*, 136, Bank of Israel Research Department, pp. 30-35.

Bank of Israel (2014), *Monetary Policy Report, The Second Half of 2013*.

Ben Naim, Galit (2009), "Investment Property Owners – Characteristics and Trends," Chapter 19, *Report of the State Revenue Division 2008*, Ministry of Finance, pp. 423-442.

Ben Naim, Galit (2013), "Collecting Property Tax and the Home Real Estate Division," Chapter 10, *Report of the State Revenue Division 2011-2012*, Ministry of Finance, pp. 226-254.

Benita, Golan and Ziv Naor (2013), *Dangers to Borrowers in the Mortgage Market: The Historical Development and Evaluations of Several Scenarios*, Bank of Israel.

Bousso, Nimrod (2014a), "Owners of rental flats will pay tax – unless the contract is for 3 years," *The Marker*, June 26.

- Bouso, Nimrod (2014b), "Modi'in municipality bends to the state: the agreement on housing limits is signed after a reduction of thousands of flats," *The Marker*, January 23.
- Bouso, Nimrod (2014c), "The state wants to promote thousands of flats in the center, and has been forced to finance projects in strong municipalities," *The Marker*, August 8.
- Bouso, Nimrod (2014d), "The second part of the pergola reform is creating problem in the housing market and will result in higher prices," *The Marker*, May 23.
- Cohen, Ari, Yaron Turel, and Moti Kaplan (2010), *TAMA 35: Accompanying the Process, Follow-Up and Adjustment*, Third Stage Report, Administration of Planning, Ministry of the Interior.
- Dovman, Polina, Yossi Yakhin, and Sigal Ribon (2011), "The Housing Market in Israel 2008-2010: Are House Prices a 'Bubble'?" *Bank of Israel Survey*, 85, pp. 61-101.
- Eckstein, Zvi, Efrat Tolkovsky, and Nitzan Tsur (2012), *Are Housing Prices in Israel High Due to Small Housing Inventory?* Haim Katzman Gazit Globe Real Estate Institute.
- Glick, Avi (2014), "Learn to plaster: A new Haredi venture in the construction sector," *The Inner Sanctum*, April 10, [bhol.co.il/article.aspx?id=67055](http://bhol.co.il/article.aspx?id=67055).
- Gruber, Noam (2012), "To create a service that everyone accepts," *The Marker*, March 5.
- Han, Iris (2010), *Needs Analysis and the Impact of the Planning Reform Recommendation*, The Open Landscape Institute.
- Han, Iris (2013), *Steps to Increase the Supply of Flats in the Short-Term Without Damaging Quality of Life and the Environment*, Society for the Protection of Nature and the Open Landscape Institute.
- Haim Katzman Gazit Globe Real Estate Institute (2012), *The Gazit Globe Measure for Housing Prices GGII*, The Interdisciplinary Center Herzliya.
- Heruti-Sover, Tali (2014), "Who's afraid of hard work? Work that will bring in up to NIS 22,000 per month," *The Marker*, February 20, [themarket.com/career/1.2248972](http://themarket.com/career/1.2248972).

- Israel Land Administration (2013), *Report of the Israel Land Administration for Budget Year 2012*.
- Ministry of Construction and Housing (2013), *Construction Sector in Israel – Economic Analysis, Second Quarter, Third Quarter and Summary*.
- Ministry of Finance (2013), *Residential Real Estate Sector – Third Quarter Summary*.
- Ministry of the Interior (2011), *Report of the Public Committee to Examine Administrative and Organizational Impediments to Planning and Building*.
- Ministry of the Interior (2013), *Bi-Annual Report on the Implementation of the National Housing Law to Accelerate the Design and Construction of Residential Building*, No. 6.
- Ministry of Justice (2013), *Survey of Changes in Housing Prices in the Second Quarter of 2013*, Chief Government Appraiser.
- Mirovsky, Arik (2014), “The broken real estate legacy of Ariel Sharon,” *The Marker*, January 14.
- Nagar, Weitzman and Guy Segal (2011), *What Explains Apartment Prices and Rental Prices in Israel 1999-2010?* Bank of Israel Survey, 85, pp. 7-59.
- Occupational Safety and Health Administration (2012), *Work Accidents that Ended in Death*, Ministry of Industry, Trade and Labor.
- Sarel, Michael (2014), *The Demand for Flats and the Desirable Taxation Policy*, Position Paper for Knesset discussions on a set of steps in the area of housing.
- Shauli, Alfi (2014), “Have we gone too high? The high-rise fever in Israel,” *Ynet*, February 21.
- Smolsky, Raz (2014), “Technion researchers: There are building defects in 100% of the new apartments in Israel,” *The Marker*, February 13.
- Zussman, Noam (2013), “Developments in the Prices of Residential Land 1998-2012,” *Real Estate*, 12, No. 5, pp. 85-97.

