BOX 1.6
THE BANKING SYSTEM AND THE CONSTRUCTION AND REAL ESTATE ACTIVITY SEGMENT: EXTENT OF EXPOSURE AND CREDIT-RISK LEVELS

• A special analysis by the Banking Supervision Department examined NIS 300 billion in credit to the construction and real estate activity segment (before weighting of risk assets)—a sum estimated as of June 30, 2020 to be 85–90 percent of the five large banks’ total exposure to this segment (hereinafter: “the examined credit”). The examination was conducted on the basis of subsegments of this activity segment and each subsegment’s risk indicators.

• The examined average risk level of the examined credit is not high and is assessed at low-to-medium, mainly because most of the credit is earmarked for closed financing construction projects. However, the estimated risk levels of the various subsegments vary. A rough estimate of the components of credit that have a “heightened” risk level is NIS 32 billion, 11 percent of the examined credit—most on account of credit not issued against any particular property.

• The banking system manages most of the examined credit (NIS 167 billion, 56 percent of the examined credit) on a project basis. This component is estimated as relatively low-risk because it is managed via a dedicated and separate account for a specific project, is typified by a strong capacity to absorb a decline in sale prices or an upturn in construction prices of dozens of percent, and is managed conservatively and overseen by outside inspectors.

• The banking system’s exposure to income-generating properties (after construction is completed) is NIS 51 billion, 17 percent of the examined credit. Around 80 percent of this credit is issued for income-generating commercial and office properties (51 percent and 29 percent, respectively), which sustained some adverse impact during the COVID-19 crisis and are estimated at medium-to-high risk. The banks, however, are more exposed to the financing of small local commercial centers, which were less vulnerable during the COVID-19 crisis than were large malls.

• Around NIS 42 billion, 14 percent of the examined credit, is used to finance land purchases. Approximately 78 percent of this exposure originates in land purchases for residential construction projects, which are estimated as low risk; 17 percent is for the purchase of land zoned for construction of income-generating properties, estimated at medium risk; and only 5 percent is issued in order to finance the purchase of land “not available for construction,” which is estimated at very high risk.

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1 The “examined credit” is based on specific data obtained from the five large banks in regard to their exposure to the Israeli construction and real estate activity segment as of June 30. The data are not identical to total credit risk (on and off the balance sheet). Instead, they relate to credit facilities and guarantees (without weighting of risk assets) beyond a certain threshold as each bank defines it. According to the estimate, these data are indicative of 85–90 percent of the credit portfolio of this segment. In cases where the data did not provide the requisite cut-off, complementary estimates were made.

2 A closed financing project is a project with a financing structure in which the bank sets aside a specific account, through which all of the project’s income and expenses are managed.
• Around NIS 40 billion, 13 percent of the examined credit, is earmarked for direct credit to firms and not for funding specific properties, and is estimated at high risk. By rough estimate, around 50 percent of this credit is backed by collateral.

Background
The construction and real estate activity segment has the highest credit exposure in Israel’s banking system. In view of the effects of the COVID-19 crisis on domestic economic activity, including an upturn in risk in the construction and real estate segment, the five large banks’ credit exposure to this segment and its risk levels were analyzed. The purpose of the analysis was to outline and estimate the main risks in the subsegments of the banking system’s exposure to the construction and real estate industry, particularly the following: closed financing construction projects; income-generating real estate in its income-producing stage (after construction is completed), purchase of land, and credit not earmarked for the financing of any particular property.

It is important to note that the risk in the construction and real estate segment is uneven, and depends largely on several variables, including:

• The purpose and stage of the lending—land purchase, construction stage funding, property in its income-producing stages, the company’s ongoing activity, its equity, and so on;

• Zoning of the property—residential, commercial, offices, industrial, logistics, hotels, infrastructure, and so on;

• Structure of the credit—closed financing, ongoing funding by means of credit facilities, long-term funding, funding by means of guarantees, etc.;

• Existence and quality of collateral—property as collateral; other collateral (e.g., stocks or other securities); unsecured credit, etc.;

• Risk indicators of the financed properties—each subsegment has different risk indicators, such as the project financing’s ability to absorb price changes; mismatch between the pace of sales and the pace of construction; the LTV ratio in credit for income-generating properties and purchase of land; occupancy rates of income-generating properties; “age” of the land; geographic distribution, and so on.

The analysis was based on dedicated itemized data obtained from the banks in regard to credit issued for the financing of specific properties in the construction and real estate activity segment, and on subsegmentation by property zoning and risk indicators corresponding to the financing of each subsegment of the credit.³

³ See Footnote 1.
The selected risk indicators provide an initial indicator of each subsegment, in terms of its average level of credit risk and its heightened risk level. 

Table 1. Exposure and estimated risk level—condensed data

Extent of total NIS 300 billion examined credit estimated as of low-medium risk; thereof: 11 percent at heightened risk

<table>
<thead>
<tr>
<th>Component</th>
<th>Estimated risk level</th>
<th>Scope of financing</th>
<th>Of which: estimated at heightened risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NIS billion</td>
<td>Percent</td>
</tr>
<tr>
<td>Total</td>
<td>Low-to-medium</td>
<td>300</td>
<td>100%</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction project funding</td>
<td>Low</td>
<td>167</td>
<td>56%</td>
</tr>
<tr>
<td>Income-generating properties in income-producing stage</td>
<td>Medium-to-high</td>
<td>51</td>
<td>17%</td>
</tr>
<tr>
<td>Land</td>
<td>Low-to-medium</td>
<td>42</td>
<td>14%</td>
</tr>
<tr>
<td>Credit not earmarked for financing of specific property</td>
<td>High</td>
<td>40</td>
<td>13%</td>
</tr>
</tbody>
</table>

Risk estimation scale:

Low Low-to-medium Medium Medium-to-high High

Source: Based on reports from the banks.

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4 The term “heightened risk level” pertains to a component of credit that has relatively high risk indicators in each subsegment (the “tail” of the distribution of the subsegment’s risk indices). It does not necessarily reflect a high level of risk in absolute terms (see Figure 1).
**Extent of exposure**

The credit examined in this survey was analyzed on the basis of specific information relating to NIS 300 billion (before weighting of risk assets\(^5\)), which, by rough estimate for the large five banks, accounts for 85–90 percent of the lending to the industry as of June 30, 2020. The credit is examined in accordance with its subsegments and risk indicators that apply to each, as specified below.

The table above summarizes the extent of exposure of the examined credit in each subsegment, along with the Banking Supervision Department’s qualitative estimate of its risk level. According to this estimation, the average riskiness of the examined credit is not high, and is estimated as low-to-medium. The components of credit that show heightened risk add up to NIS 32 billion (rough estimate), 11 percent of the examined credit (mostly on account of credit not issued for specific properties).

![Figure 1](image)

*Figure 1*

**Average Risk Level and Increase Risk by Segments of the Construction and Real Estate Industry, The Five Large Banks, June 2020** (NIS billion)

Most of the exposure is in project-based financing with a low assessed risk level. Most of the financing at increased risk comes from credit that is not intended for financing a single project and is not backed by collateral.

5 In this survey, for example, a guarantee given under the Sales Law is included at its full sum (NIS 1 of guarantee = NIS 1 of credit) and not after weighting of risk assets for the purpose of calculating indebtedness (i.e., commensurate with the probability of exercising the guarantee at rates of 10–30 percent, depending on progress in construction, and particularly whether the dwellings in the project have been handed over).
Closed financing

The exposure data

The banking system manages most of the examined credit (NIS 167 billion, 56 percent of the total) by means of closed financing. Most of this sum (NIS 130 billion) is issued in credit facilities for guarantees under the Sales Law, with only a small portion (NIS 37 billion) provided through the actual release of funds.

The five large banks are financing a total of 1,284 projects that have separate-account project finance, largely for homebuilding (88 percent of the total exposure and 92 percent of projects based on separate-account finance). Most of the remainder finances the construction of income-generating properties (office and commercial).

Estimate of the total risk

Construction credit is estimated as low-risk for several main reasons:

- The closed financing structure mitigates risk to the bank because the credit is managed in a separate account dedicated to the project, from which the developer cannot withdraw funds without the bank’s consent—particularly when the withdrawal is not meant to finance the project. Closed financing also ensures compliance with a predetermined budget (“zero-based reporting”) and there is external oversight of construction by inspectors representing the bank, who track the pace of progress on site and monitor expenditure and income in accordance with the planned budget.

- Much of the banks’ exposure to closed financing projects, as noted, is comprised of Sales Law guarantees and not of actual use of money. This reduces the risk to the bank by creating certainty about the proceeds of sales of the project.

- The banks’ risk appetite for closed financing projects is relatively conservative. This is partly reflected in the banks’ demand for minimal rates in variables such as developer’s equity invested the project, advance sales or rentals, developer’s profit required according to planning, and the residential projects’ ability to absorb changes in prices.

The vast majority of closed project financing is intended for residential construction.

Figure 2
Closed Project Financing by Property Zoning\(^a\) (NIS billion and percent)

* Data from the five largest banks as of June 30, 2020.
SOURCE: Based on the banks’ reports to the Banking Supervision Department.
Selected risk indicators

In the survey, the construction portfolio was examined in order to determine the risk levels of closed financing for residential construction and for sale (in the construction stage) on the basis of selected risk indicators.

Table 2. Selected risk indicators in closed financing residential construction

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighted average</th>
<th>Heightened risk level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to absorb price changes</td>
<td>66%</td>
<td>&lt;30%</td>
</tr>
<tr>
<td>Differential between sales and performance</td>
<td>6%</td>
<td>0%&gt;</td>
</tr>
<tr>
<td>Extent of funding for projects in deficit</td>
<td>7% of credit for projects</td>
<td>Deficit sum</td>
</tr>
</tbody>
</table>

Source: Based on reports from the banks.

• Absorption capacity—the weighted absorption capacity of the banking system is very high, at 66 percent, meaning that the system can absorb declines of dozens of percent in average sale prices or a major increase in construction costs without the project absorbing losses and falling into deficit.

Only 2 percent of projects with separate-account finance (worth approximately NIS 4 billion) have less than 30 percent absorption capacity. The Banking Supervision Department defines credit for them as of heightened risk. (For example, a project defined as of heightened risk that has 20 percent absorption capacity can still absorb price changes up to 20 percent without the bank taking a loss on the project.)

• Differential between sales and performance—The costs of residential construction projects are usually covered by proceeds from the sale of the dwellings. As such, the bank’s financing bridges the timing differential between construction and sale. When the pace of sales slows, it may mean that the project is in trouble and the level of risk to the bank rises.

• The weighted differential between the pace of sales and the pace of project performance is 6 percent, reflecting, on average, brisk demand for projects funded by the five large banks (with variance among the banks).

• Projects in deficit—A deficit in closed financing projects is calculated as the differential between the project’s uses (e.g., construction costs) and its sources (such as equity and sales proceeds), after applying stringent safety coefficients in accordance with each bank’s policy. Credit for projects in
deficit, after the application of the safety coefficients, is 7 percent of credit for projects (NIS 11.5 billion). However, nearly all of these projects are in surplus before the safety coefficients are applied, and the cumulative deficit is inconsequential (NIS 350 million, only 0.2 percent of total exposure to projects).

**Financing income-generating properties**

**The exposure data**

The exposure to income-generating properties that have reached the income-producing stage (i.e., after construction is completed) is NIS 51 billion, 17 percent of the examined credit. The banking system finances around 2,900 income-generating properties of various sizes. Around 80 percent of this credit goes for commercial properties (malls, neighborhood commercial centers, etc.) and offices (51 percent and 29 percent, respectively), which were adversely impacted by the COVID-19 crisis. The remainder is used to finance other income-generating properties: hotel rentals (6 percent), residential income-generating properties (e.g., sheltered housing and rental housing, 6 percent), and other purposes such as industrial buildings and logistic centers (8 percent).

**Estimating the total risk**

Credit for income-generating properties is assessed at medium-to-high risk, especially in view of its long duration (10–20 years) and payback ability contingent on rental and income rates generated over time.

The level of risk in this subsegment has risen lately, especially in credit for commercial and office space, due to the negative impact of the COVID-19 crisis on these properties:

- Commercial properties—the government-imposed limitations on gatherings impaired the income of some commercial tenants. To retain them, landlords had to give dispensations during lockdowns by forgoing rent, lowering other payments, cutting prices, and so on.
- Office space—the transition to remote work and the decline in demand for working space had only a slight impact in the short term (mainly offices in old properties that were leased to small businesses
hard-hit by the crisis. However, the impairment may become more significant in the medium and long terms as organizations gradually switch to remote work, reducing demand for workspaces and applying downward pressure on rents.

Lending for income-generating commercial and office properties at LTV rates of more than 70 percent are assessed by the Banking Supervision Department to be at heightened risk. They account for 10 percent of credit for income-generating properties (NIS 5 billion).

**Table 3. Selected risk indicators in financing income-generating properties**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighted average</th>
<th>Heightened risk level</th>
<th>Rate of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average lending per property</td>
<td>NIS 18 million</td>
<td>Financing for commercial asset &gt; NIS 250 million</td>
<td>Was not a subsegment</td>
</tr>
<tr>
<td>(NIS million)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTV</td>
<td>56%</td>
<td>&gt;70%</td>
<td>15%</td>
</tr>
<tr>
<td>Occupancy rate</td>
<td>91%</td>
<td>&lt;80%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

**Source:** Based on reports from the banks.

In the survey, the level of risk in the portfolio of income-generating properties in their income-producing stage was examined on the basis of selected risk indicators:

- **Characteristics and size of funded properties**—Given the paucity of sources for long-term lending, the banks struggle to compete with institutional investors in long-term financing of large income-generating properties of large firms. Therefore, it is estimated that 60 percent of banking-system credit for income-generating properties and 88 percent of properties financed belong to medium and small borrowers and not to large business borrowers. The average financing per property is only NIS 18 million, attesting to wide decentralization in the funding of small and medium properties among the five large banks.

Commercial borrowers have less financial strength, of course. However, this credit is widely decentralized and issued for properties that are less affected by the COVID-19 crisis because they are close to residential neighborhoods and, in many cases, in open centers with a mix of tenants leaning toward pharmaceuticals and food.

- **LTV ratios**—The LTV expresses the ratio of total credit to the value of the financed property that is usually encumbered to the bank. The average weighted LTV of income-generating properties in the banking system is 56 percent—a reasonable leverage rate.
Some 15 percent of credit for income-generating properties (NIS 7.7 billion) is given at high LTV that exceeds 70 percent.

A break-down of leveraged properties by zoning finds that 75 percent of leveraged credit (exceeding 70 percent LTV) finances commercial and office properties, accounting for 14 percent and 15 percent, respectively, of total credit facilities for these properties.

- **Occupancy rate**—Financing of income-generating properties is based on repayment ability that comes from rental income that the property generates (the yield). When the occupancy rate falls, so does the repayment ability generated by the property. A persistently low occupancy rate may affect the success of the property and impair its value. For example, a commercial center or mall that has many closed shops may attract fewer shoppers and impair the other shops’ income and survivability.

The weighted occupancy rate of properties financed by the five large banks is about 91 percent. By rough estimate, about 5.7 percent of credit for income-generating properties (NIS 2.9 billion) is financing assets that are rented out at occupancy rates that are lower than 80 percent.

A break-down of the data on properties with occupancy rates below 80 percent shows that the highest rate of such properties is in commercial properties—5 percent of total credit facilities earmarked for the commercial segment. This may reflect the impact of the COVID-19 crisis, which depressed commercial centers’ occupancy rates because shops were closed.

**Financing land purchases**

**The exposure data**

NIS 42 billion, 14 percent of the examined credit, is used to finance the purchase of land. The banking system is financing approximately 1,100 units of land.

Some 78 percent of the exposure originates in the purchase of land for residential construction (30 percent within the Buyer’s Price framework and 48 percent outside that framework), 7 percent for land on which income-generating commercial space and hotels is to be built, 10 percent for other land uses, and only 5 percent for the purchase of land “unavailable for building,” on which no income is expected.

**Estimating the total risk**

By and large, the Banking Supervision Department assesses bank credit for land purchases to be of medium-to-low risk because most of it is for land that has an approved Municipal Building Plan and is earmarked for building within projects supported by the banking system through closed financing, which the Banking Supervision Department assesses as low-risk.

The Banking Supervision Department assesses financing of land purchases for construction of income-generating properties as medium-risk because here, too, in most cases, the banking system will manage the construction phase on a project basis. The difference is that the income generated by the property will arrive at a later stage.
Most of the leveraged income-generating properties financed by the banking system are zoned for commercial and office use.

**Figure 4**

- **a. Credit facilities for properties with an LTV rate that is higher than 70 percent**
  
  (NIS billion and percent)

- **b. Credit facilities for properties with an LTV rate that is higher than 70 percent as a share of total credit facilities, by property zoning**
  
  (percent)

- Data from the five largest banks as of June 30, 2020.

SOURCE: Based on the banks’ reports to the Banking Supervision Department.

Most of the leveraged income-generating properties financed by the banking system are zoned for commercial and office use.
A significant portion of properties with low occupancy that are financed by the banks are zoned for commercial use.

**Figure 5**

**a. Credit facilities for properties with an occupancy rate that is lower than 80 percent**

(NIS billion and percent)

![Pie chart showing credit facilities by property type]

- Residential, 0.4, 13%
- Commercial, 1.3, 46%
- Offices, 0.8, 29%
- Hotels, 0.3, 9%
- Other, 0.1, 3%

**b. Credit facilities for properties with an occupancy rate that is lower than 80 percent as a share of total credit facilities, by property zoning**

(percent)

- Residential: 13%
- Commercial: 5%
- Offices: 6%
- Hotels: 8%
- Other: 2%

* Data from the five largest banks as of June 30, 2020.
SOURCE: Based on the banks’ reports to the Banking Supervision Department.
Credit for land not zoned for building and that has no approved Municipal Building Plan has a negligible share in the mix of funding for this activity segment. Still, the Banking Supervision Department assigns it a very high risk level because the land is unlikely to generate income and payback will be made from future sale of the land or some other external source. The proceeds of the foreseen future sale are susceptible to acute price volatility between the time of the loan and that of the sale. Since neither the bank nor the borrower has control of this, the financing at issue is speculative. As a rule, there is no room for speculative financing of land purchases in the banking system’s risk appetite. Therefore, only 5 percent of credit for land purchases (NIS 2 billion) is given without a Municipal Building Plan, and is assessed at a heightened risk level. Credit for such purchases is issued in exceptional cases, usually to financially strong borrowers and sometimes against an external source of repayment.

Table 4

Selected risk indicators of funding of land purchase

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighted average</th>
<th>Heightened risk</th>
<th>Rate of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTV</td>
<td>70%</td>
<td>&gt;70%</td>
<td>47%</td>
</tr>
<tr>
<td>“Age” of land unit</td>
<td>2.4 years</td>
<td>&gt;3 years</td>
<td>21%</td>
</tr>
<tr>
<td>Zoning of land unit</td>
<td>Residential (78%)</td>
<td>Unavailable</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Income-generating (17%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unavailable (5%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Based on reports from the banks.

Selected risk indicators

- **LTV**—The weighted LTV for land purchases is relatively high at 70 percent. Much of the credit for this purpose (47 percent, NIS 20 billion) is issued at LTVs higher than that.

A break-down of the data on high-LTV (greater than 70 percent) credit for land purchases shows that most is given for land zoned for residential construction (84 percent) and that much of that sum (47 percent) is...
for Buyer’s Price projects. It should be noted that most dwellings in Buyer’s Price projects are sold up-front, making the financing of this land less risky despite its high LTV.

• “Age” of the land—“Age” denotes the length of the period between buying land for a project and the bank’s provision of financing for the start of construction. This period reflects the risk that the required authorizations will not come through and the construction will not be allowed to proceed. Approval of projects financed by the large banks takes an average of 2.4 years, and depends on bureaucratic proceedings. The longer these proceedings take, the “older” the land becomes and the greater the risk to the bank. In this context, it is noteworthy that the level of this credit risk is trending upward, for reasons including the prolongation of building and planning proceedings in recent years.

Some 21 percent of credit for land purchases (a NIS 9 billion exposure) is issued for land that is more than three years “old” (“old land”). An estimated 60 percent of old land is earmarked for residential construction projects outside the Buyer’s Price framework.

**Credit for purposes other than the financing of specific properties**

Thirteen percent of the examined credit (NIS 40 billion) was issued for purposes other than financing a specific project or property. Thus, its repayment source is rarely locked in and, accordingly, it bears high risk. This credit includes financing for performance contractors to purchase heavy engineering equipment and for project performance guarantees, which itself is high-risk. By rough estimate, 50 percent of this credit (NIS 20 billion) is secured.

When this credit was broken-down, however, it was found that this group includes credit at lower risk levels, such as guarantees for financing of National Outline Plan projects and credit for performance guarantees backed by external collateral.