**CHAPTER 4** CAPITAL ADEQUACY AND LEVERAGE

#### **CAPITAL ADEQUACY AND LEVERAGE**

The banking system's Tier 1 Capital Ratio remained stable during 2022 and was about 10.8 percent, compared to 10.9 percent at the end of 2021. There was variation in the ratio across the banks (Figure 4.1). During the course of the year, the banks expanded their use of tools for the management of risk assets and capital, which helped them maintain desirable capital ratios. In addition, there was a recovery in the leverage ratio¹ during the year (from a rate of 5.83 percent at the end of 2021 to 6.06 percent at the end of 2022), for the first time since the COVID-19 pandemic, as a result of the rapid growth in capital relative to exposure.

## The variation in the trend of the Tier 1 Capital Ratio within the banking system.

**Figure 4.1** Tier 1 Capital Ratio, Total Banking System, December 2018–December 2022 (percent)



**SOURCE:** Based on published financial statements and reports to the Banking Supervision Department.

The banking system's Tier 1 Capital increased by about 12.1 percent during 2022 (compared to 9.6 percent during 2021) and totaled about NIS 158 billion (Table 12). The high level of profitability presented by the banks (a net profit of NIS 24 billion) and the issuing of shares to the public by Discount Bank and Bank Leumi (NIS 1.4 billion and NIS 2.7 billion, respectively) contributed to the growth in capital. In contrast, the distribution of dividends totaling NIS 5.1 billion<sup>2</sup> (compared to NIS 5.4 billion during 2021) and the decline in the value of the available for sale bond portfolio as a result of the rise in bond yields<sup>3</sup> moderated the increase in capital. In this context, several of the banks transferred bonds from the available-for-sale portfolio to the hold-to-maturity portfolio in order to reduce the exposure of the bank's capital and its capital adequacy ratio to market fluctuations.

<sup>&</sup>lt;sup>1</sup> The leverage ratio is defined as the ratio of Tier 1 Capital to total exposure (balance sheet exposure, exposure to derivatives, exposure to securities financing transactions and non-balance-sheet items).

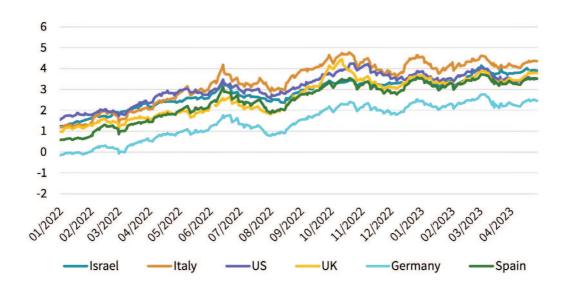
<sup>&</sup>lt;sup>2</sup> Including part of the distribution of 2021 profits.

<sup>&</sup>lt;sup>3</sup> In contrast, the rise in bond yields worked to reduce the liabilities due to employee rights; however, on the level of the banking system the effect of the decline in the value of the available-for-sale bond portfolio was more significant.

Risk assets increased during the period by about 12.2 percent (Table 12), which is higher than in 2021 (11.4 percent) and higher than the annual average of 4 percent for 2019–20. The growth in risk assets was primarily the result of the accelerated growth in the credit portfolio due to the increase in credit risk assets. This was particularly the result of credit to the large business sector and housing credit (for further details, see Section 5.2), which led to an increase in the share of corporations' credit exposure (24.1 percent in December 2022 as compared to 21.4 percent in December 2021) and exposure secured by a residence (22.6 percent in December 2022 as compared to 21 percent in December 2021; Table 13) within total credit exposure. In addition, the Banking Supervision Department's regulatory measures worked to strengthen the stability of the system. Thus, the revision of Proper Conduct of Banking Business Directive 203<sup>4</sup> and the adoption of the Standardized Approach to Counterparty Credit Risk (SA-CCR)<sup>5</sup> led to an additional increase in credit risk assets during the year. The more moderate growth in risk assets was achieved by greater use of tools for risk asset management. In this context, the banks improved their ability to manage risk assets, in parallel to increasing their acquisition of credit insurance during the course of the year, whereby the debts of the insured party receive the insurer's risk weight, which is smaller than the credit risk of the borrower.

### Bond yields increased in 2022.

Figure 4.2 Yield to Maturity on Unindexed Fixed-Rate 10-Year Government Bonds, January 2022–April 2023 (percent)



**SOURCE:** Based on Tel Aviv Stock Exchange and Bloomberg.

<sup>&</sup>lt;sup>4</sup> Proper Conduct of Banking Business Directive 203. A bank has the right to spread out the effect of a change in a risk weight on the capital adequacy ratio as the result of the existing stock of loans on the day it goes into effect, according to fixed quarterly rates until June 30, 2023.

<sup>&</sup>lt;sup>5</sup> Proper Conduct of Banking Business Directive 203A "Counterparty Credit Risk" adopts the Basel Committee Directive for the calculation of exposure to counterparty credit risk using the standardized approach, with the necessary modifications to fit the banking system in Israel. The directive went into effect in July 2022.

As in the case of the Tier 1 capital ratio, the total capital ratio remained stable during 2022 at about 13.9 percent, compared to 14 percent in December 2021 (Table 11). The small decline in the total capital ratio is the result of somewhat slower growth in the capital base than in risk assets (an increase of about 12.07 percent). During 2022, the issuing of about NIS 5.6 billion in bonds that are recognized as Tier 2 Capital (CoCo's) contributed to the increase in the capital base; in contrast, the end of the recognition of capital instruments that are not eligible to be included in supervisory capital (Additional Tier 1 Capital) in the amount of about NIS 422 billion and the early redemption of eligible bonds in the amount of about NIS 2 billion worked to erode the capital base.

For the first time since the onset of the COVID-19 pandemic, there was an improvement in the leverage ratio during 2022. The leverage ratio rose to a level of 6.06 percent as compared to 5.83 percent in December 2021 (Table 14). The improvement in the banking system's leverage ratio was the result of the more rapid growth in Tier 1 capital (11.7 percent) than in exposures (7.5 percent), which is significantly lower than the average rate of growth in exposure during the past two years (16.7 percent).



# THE TREND IN THE ISRAELI BANKING SYSTEM'S CAPITAL ADEQUACY OVER THE YEARS

A bank's capital is considered "adequate" if it can serve as a buffer for absorbing unexpected losses that result from exposure to the array of risks implicit in the bank's ongoing activity (credit risk, market risk, operational risk, etc.). The capital and leverage targets that were introduced over the years were meant to ensure that the banks' level of capital is suited to the array of risks to which they are exposed.

Until 1989, the banks in Israel were not required to meet a minumum capital ratio and the banks' capital adequacy was estimated by looking at the ratio of capital to total assets or deposits and by using the ratio of capital to total weighted assets, which were then defined as assets (both balance sheet and non-balance-sheet) that carry surplus risk, i.e., total assets less liquid assets, credit to the government and government bonds (Figurer 4.3). In 1989, it was decided to require the banks in Israel to maintain a minimum capital ratio of 8 percent, which would be calculated as the ratio of capital to total weighted assets (herein the capital to risk components ratio) according to the recommendations of the Basel Committee which discussed the strengthening of the banks' capital adequacy<sup>6</sup> (Basel I), primarily in the context of credit risk. Nonetheless, it became clear that these recommendations do not reliably capture the exposure of a bank to other risks (market risk, operational risk, aspects of corporate governance, etc.). As a result, in January 1996, the Basel Committee recommended the adoption of additional capital requirements to deal with market risk. The Banking Supervision Department did not immediately adopt these recommendations and the Supervisor of Banks in Israel raised the minimal capital ratio to 9 percent in March 1999, with the goal of strengthening the capital adequacy of the Israeli banking system. Following that, in September 2000, requirements according to the Basel recommendations for the allocation of capital against market risk were adopted.

<sup>&</sup>lt;sup>6</sup> The framework formulated by the committee related primarily to credit risk and included a classification of balance-sheet and non-balance-sheet assets into risk categories and assignment of a risk weight to each category. The weighted risk assets were then aggregated for the calculation of the capital to risk components ratio. A new definition of the capital base (primary and secondary capital) was decided on and the minimum weighted capital ratio (8 percent) was also established and then achieved by 1992.



In June 2006, the Basel Committee published recommendations that were aimed at improving capital adequacy and the allocation against an array of risks to which the banks are exposed (Basel II). The recommendations can be divided into three levels: (1) minimum capital requirements—which included a recommendation to increase the capital target to 12.5 percent; (2) improvement in the supervision and monitoring of capital adequacy;<sup>7</sup> and (3) an increase in market discipline by expanding disclosure to the public. Israel adopted these recommendations at the end of 2008.

A few years later, as part of the lessons learned from the Global Financial Crisis of 2007–09, the Basel Committee published a revised working framework for capital and liquidity requirements in December 2010<sup>8</sup> (Basel III). The recommendations were intended to strengthen the resilience of the banking system and to improve its ability to absorb unexpected shocks. The recommendations were adopted in Israel by means of the Banking Supervision directives, and in 2012, the banks began implementing them. These directives included, among other things, the requirement to meet two minimum capital ratios: Tier 1 Capital and Total Capital.<sup>9</sup> In addition, starting from 2014, the banks were required to allocate capital against exposure to housing credit at a rate of 1 percent of the housing credit portfolio. A complementary tool to the risk-oriented capital ratio is the leverage ratio, adopted in Israel in April 2015. It requires the banks to encumber a minimum quantity of capital according to their level of activity, independent of their risk characteristics.

As a result of the adoption of the Basel Committee recommendations and the compliance of all the banks with the minimum capital ratios that were decided on, there has been a significant improvement in the ability of the banking systems to deal with unexpected external shocks.

<sup>&</sup>lt;sup>7</sup> The second level included a framework that includes the Supervisory Review and Evaluation Process (SREP) and the Internal Capital Adequacy Assessment Process (ICAAP).

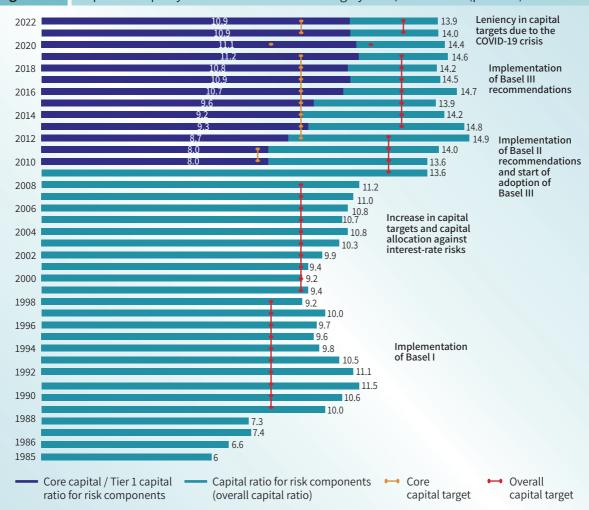
<sup>&</sup>lt;sup>8</sup> During 2010, the Banking Supervision Department announced a capital policy for the interim period, according to which the core capital ratio would not be less than 7.5 percent until the end of 2010.

In March 2012, the Banking Supervision Department announced that by January 2015 all the banks were to comply with a minimum core capital ratio of 9 percent, and banks that account for more than 20 percent of the system's assets would be required to meet a minimum core capital ratio of 10 percent by January 2017. In June 2013, the Banking Supervision Department announced that all the banks are required to meet a total capital ratio of 12.5 percent (by January 2015) and in the case of banks that were previously required to meet a Tier I Capital target of 10 percent, they were required to meet a Total Capital ratio of 13.5 percent (by January 2017).



The capital and leverage targets over the years that are intended to ensure a level of capital that is adequate for the array of risks to which the banks are exposed.

Figure 4.3 Capital Adequacy Ratio in the Israeli Banking System, 1985–2022 (percent)



#### Notes:

- Until 1989, the ratio was calculated as total capital to total risk components (total nonliquid assets, credit to the government, and government bonds).
- From 1989, the calculation method for the capital ratio for risk components was changed in accordance with the Basel I directives, and a minimum capital target of 8 percent was set.
- From December 2009, the banks were required to allocate capital in accordance with the new directive under which the Basel II recommendations were adopted.
- From 2010, the banks began adopting the core capital ratio (later to become the Tier 1 capital ratio).
- Prior to publication of the final Basel III recommendations, the Supervisor fo Banks set out a capital policy for the interim period, which stated that by the end of 2010, the core capital ratio would be no less than 7.5 percent.
- From 2012, the banks were required to meet a minimum target of 9 percent for the core capital ratio (10 percent for banks with total assets that were more than 20 percent of the total assets of the banking system).
- From 2013, the banks were required to meet a minimum target of 12.5 percent for the overall capital ratio (13.5 percent for banks with total assets that were more than 20 percent of the total assets of the banking system).
- During the COVID-19 crisis, a leniency of one percentage point was issued for the capital ratios.

**SOURCE:** Based on published financial statements.