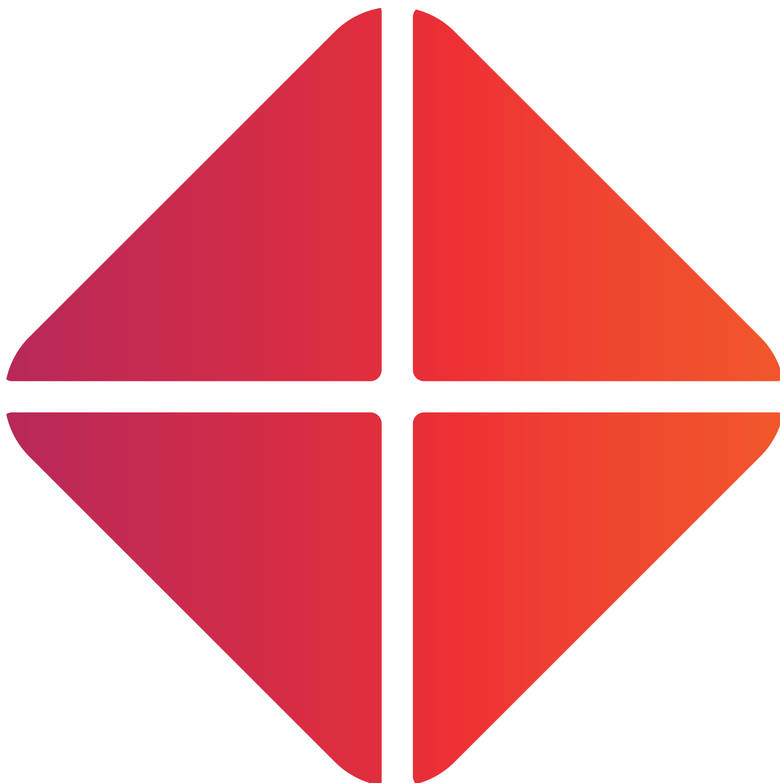
2022

Bank Hapoalim

Report on Risks

Pillar 3 Disclosure and Additional Information Regarding Risks

as at December 31, 2022



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This is a translation of the Hebrew report and has been prepared for convenience only.
In case of any discrepancy, the Hebrew version will prevail.

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Report on Risks

We are honored to present the Report on Risks: Pillar 3 Disclosure and Additional Information Regarding Risks as at December 31, 2022.

The information in this report, as required by the reporting directives of the Bank of Israel, includes disclosure requirements issued by the Basel Committee and risk disclosure requirements based on other sources, including disclosure requirements issued by the Financial Stability Forum (FSF) and disclosure requirements issued by a task force established by the Financial Stability Board (FSB) in order to improve risk disclosure at banking corporations.

The Bank has implemented United States generally accepted accounting principles concerning current expected credit losses (CECL) as of January 1, 2022, prospectively. For additional details, see Note 1D to the Financial Statements.

This Report on Risks is published within the financial reporting of Bank Hapoalim B.M., and contains information regarding the management of risks and capital. This report should be perused in conjunction with the Financial Statements as at December 31, 2022.

Sincerely yours,

Ruben Krupik	**Dov Kotler**	**Merav Ben Shushan Cohen**
Chairman of the Board of Directors	President and Chief Executive Officer	Senior Deputy Managing Director, Chief Risk Officer

Tel Aviv, March 8, 2023

A. Introduction

A.1. Forward-looking information

Most of the information in this report that does not refer to historical facts (even if it is based on processing of historical data) constitutes forward-looking information, as defined in the Securities Law, 1968. The actual results of the Bank may differ materially from those included in forward-looking information, including, among other factors, as a result of changes in capital markets in Israel and globally, macroeconomic changes, changes in geopolitical conditions, regulatory changes, accounting changes, changes in taxation rules, and other changes not under the Bank's control, which may lead to the failure of estimates to materialize and/or to changes in the Bank's business plans. Forward-looking information is marked by words or phrases such as "forecast," "plan," "objective," "risk estimate," "scenario," "stress scenario," "risk assessment," "correlation," "distribution," "we believe," "expect," "predict," "estimate," "intends," "plans," "aims," "may change," "should," "can," "will," or similar expressions. Such forward-looking expressions involve risk and uncertainty, because they are based on management's estimates regarding future events, which include changes in the following parameters, among others: economic conditions, public tastes, interest rates in Israel and overseas, inflation rates, new legislation and regulation in the area of banking and the capital market, exposure to financial risks, the financial stability of borrowers, the behavior of competitors, aspects related to the Bank's image, technological developments, manpower-related matters, and other areas that affect the activity of the Bank and the environment in which it operates, the materialization of which is uncertain by nature.

This information reflects the Bank's current viewpoint with regard to future events, which is based on estimates, and is therefore subject to risks and uncertainty, as well as to the possibility that expected events or developments may not materialize at all or may only partially materialize, or even that actual developments may be the opposite of expectations.

The information presented below is based, among other things, on information known to the Bank and based, among other things, on publications by various entities, such as the Central Bureau of Statistics, the Ministry of Finance, the Bank of Israel, the Ministry of Construction and Housing, and other entities that publish data and estimates regarding the Israeli and global capital markets.

A.2. Disclosure declaration

Pursuant to the instructions of the Bank of Israel, the disclosure declarations in the periodic financial report of the Bank are also valid for the Report on Risks – Pillar 3 Disclosure and Additional Information Regarding Risks. As part of the discussions of the financial statements of the Bank, the Board of Directors of the Bank approved the publication of the Report on Risks – Pillar 3 Disclosure and Additional Information Regarding Risks as at December 31, 2022.

B. Principal supervisory ratios, risk-management review, and weighted risk-adjusted assets

B.1. Principal supervisory ratios

Table B-1: Principal supervisory ratios

	On a consolidated basis, as at				
	December 31, 2022	September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021
	NIS millions				
Available capital					
Common equity Tier 1 capital	**46,745**	45,262	44,446	43,494	42,772
Common equity Tier 1 capital before effect of transitional directives[1]	**46,330**	44,830	43,996	43,026	42,561
Tier 1 capital	**46,745**	45,262	44,446	43,494	43,016
Tier 1 capital before effect of transitional directives[1]	**46,330**	44,830	43,996	43,026	42,561
Total capital	**61,094**	58,514	57,619	56,231	55,506
Total capital before effect of transitional directives[1]	**60,704**	58,103	57,218	55,771	54,960
Risk-weighted assets					
Total risk-weighted assets (RWA)	**415,577**	407,914	398,865	389,452	390,280
Total risk-weighted assets (RWA) before effect of transitional directives[1]	**417,603**	409,587	402,830	390,060	390,555
Capital-adequacy ratios according to the directives of the Banking Supervision Department					
Common equity Tier 1 capital ratio	**11.25%**	11.10%	11.14%	11.17%	10.96%
Common equity Tier 1 capital ratio before effect of transitional directives[1]	**11.09%**	10.95%	10.92%	11.03%	10.90%
Tier 1 capital ratio	**11.25%**	11.10%	11.14%	11.17%	11.02%
Tier 1 capital ratio before effect of transitional directives[1]	**11.09%**	10.95%	10.92%	11.03%	10.90%
Total capital ratio	**14.70%**	14.34%	14.45%	14.44%	14.22%
Total capital ratio before effect of transitional directives[1]	**14.54%**	14.19%	14.20%	14.30%	14.07%
Common equity Tier 1 capital ratio required by the Banking Supervision Department[2]	**10.23%**	10.23%	10.23%	10.23%	9.21%
Available common equity Tier 1 capital ratio beyond the requirement of the Banking Supervision Department[2]	**1.02%**	0.87%	0.91%	0.94%	1.75%
Leverage ratios according to the directives of the Banking Supervision Department					
Total exposures	**737,115**	732,928	720,777	710,706	713,511
Total exposures before effect of transitional directives[1]	**737,330**	733,152	721,069	710,949	713,621
Leverage ratio	**6.34%**	6.18%	6.17%	6.12%	6.03%
Leverage ratio before effect of transitional directives[1]	**6.28%**	6.11%	6.10%	6.05%	5.96%

(1) Before the effect of the transitional directives, including the effect of the adoption of US GAAP on employee benefits; before the effect of adjustments for efficiency plans; before the effect of adjustments in respect of current expected credit losses; and before the effect of adjustments in respect of high-risk loans for land acquisition.
(2) Including a capital requirement at a rate representing 1% of the balance of housing loans at the dates of the financial statements, excluding housing loans for which a relief was granted under the Temporary Order.

Table B-1: Principal supervisory ratios (continued)

	Average for the three months ended				
	December 31, 2022	September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021
Liquidity coverage ratio according to the directives of the Banking Supervision Department					
Total high-quality liquid assets	**179,514**	189,487	195,054	202,455	205,777
Total net cash outflows	**147,712**	150,828	154,857	165,269	165,682
Liquidity coverage ratio (in %)	**122%**	126%	126%	123%	124%

	On a consolidated basis, as at				
	December 31, 2022	September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021*
Net stable financing ratio according to the directives of the Banking Supervision Department					
Total available stable financing	**412,150**	397,965	403,331	394,746	*389,628
Total required stable financing	**316,321**	312,819	305,916	294,609	*286,706
Net stable financing ratio (%)	**130%**	127%	132%	134%	136%

* Restated.

B.2. Risk assessment and management

The Bank performs a comprehensive examination to assess the risks to which it is exposed and to determine the materiality of such risks. Within the ICAAP (Internal Capital Adequacy Assessment Process), the Bank defined the following risks as material risks: credit risk, concentration risk, market risk, investment risk, operational risk (including IT risk and cyber risk), counterparty risk, interest-rate risk in the banking book, liquidity risk, reputational risk, strategic and competitive risk, regulatory risk, compliance risk, and model risk. Other risks to which the Bank is exposed are handled directly as part of the management of its business: legal risk, economic risk, and environmental risk (including climate risk).

The risk-management strategy of the Bank Group is designed to support the achievement of the strategic objectives of the Group as a whole, while identifying and quantifying risks, establishing risk ownership, and maximizing business value, taking into consideration costs in terms of risk, by every responsible function at all levels of the organization. Risk management at the Bank is based on a uniform methodology, from a comprehensive perspective, adapted to regulatory requirements, with the aim of supporting risk-taking in an informed manner in order to maximize the Group's profitability at a risk level aligned with its risk appetite. The Bank actively takes risks, to the extent permitted by its risk appetite and risk tolerance. Risks are taken while examining the adequacy of the benefit in business terms. Various banking activities also require the acceptance of a certain degree of risk, even if they are not necessarily profitable in themselves. Unacceptable risks are risks at a level that exceeds the maximum risk tolerance, as defined by the Board of Directors of the Bank, or risks that may impair the strategic position of the Bank to the extent of disruption of the successful continuation of its core activity.

In quantifying risk, the Bank generally endeavors to aggregate risks at the level of the Group as a whole. Accordingly, risk quantification and measurement are performed consistently at all of the legal and organizational entities in the Bank Group, to the extent possible. The Bank deviates from this principle when it is not feasible, or when the effort involved is disproportionate and therefore unfeasible from an economic perspective. Risk quantification is based on appropriate, accepted methods and models. To the extent possible, a range of tools or measurement methods are used, including expert assessments, in order to examine exposure from different perspectives.

The risk management structure and organization described in this section are applicable to all types of risks and to all units of the Bank. Each type of risk is addressed further, separately, as relevant, later in this section.

B.2.a. Risk management structure and organization

Risk management is performed based on a global view of the Bank's activity in Israel and of activity at the Bank's branches abroad, with due attention to the activity of subsidiaries with exposure significant for the Group. The subsidiaries are instructed to manage risks based on the strategy and policy of the Group, with adjustments according to the circumstances, which are reported to the parent company. Risks are managed separately by each company in the Bank Group, according to policy formulated by each company's board of directors. The Bank manages the various risks while hedging some risks. The Banking Supervision Department has set forth guidelines concerning risk management in the Proper Conduct of Banking Business Directives. The directives detail the requirements of the Banking Supervision Department for the management of the various risks to which a banking corporation is exposed, and stipulate fundamental principles for the management and control of risks, including suitable involvement in and thorough understanding of risk management by the board of directors of the banking corporation, the management of risks by a risk manager who is a member of the board of management, the employment of tools for the identification and measurement of risks, and the creation of means for supervision and control, including the existence of an independent risk-control function. The Bank operates in accordance with the guidelines of the Banking Supervision Department.

Risk control and the assessment of financial risks and operational risks are performed based on a uniform methodology at the Group level, under the direction of the Risk Management Division, taking into account the unique characteristics of the activity of each company. Any risks in new products or processes are identified through an orderly procedure, based on the policy for the launch of new products and processes. Models used to assess risks are tested prior to implementation and periodically, based on the Bank's model validation policy.

The approach taken with regard to control of all financial and operational risks at the Bank involves identification and assessment of the risks, and control of compliance with risk-appetite limits and with additional limits stipulated in the various internal regulations, through three lines of defense:

1. The first line of defense includes the business units within the divisions, including supporting and operational divisions, that create or take risks, as well as the internal control units within the divisions that provide internal control over the risk creators and risk takers. The management of the business line bears the primary responsibility for routine risk management, aimed at managing risks while striving to achieve strategic goals and business objectives, within the established risk appetite and in accordance with the internal risk regulations and regulatory directives. Controls in the first line of defense are formalized in working procedures.

2. The second line of defense consists of the control units at the Risk Management Division, which is independent of the business divisions. This line is also responsible for presenting an overview of risks; formulating methodologies for risk assessment and for economic capital allocation; independent risk assessment; analysis of the congruence of products and activities with the risk-appetite framework and risk capacity established by the Board of Directors; and validating models. The second line of defense contains additional independent control functions, such as accounting and legal counsel.
3. The third line of defense consists of Internal Audit, which operates independently and objectively. Its purpose is to improve the activity of the organization and help it achieve its goals, including through supervision to ensure compliance with the directives of the law and regulation, implementation of the guidelines of the Board of Management and Board of Directors, and challenging and recommending improvement, from a focused and forward-looking perspective. Internal Audit operates under laws, regulations, international standards, guidelines of the Institute of Internal Auditors in Israel, guidelines of the Board of Directors' Audit Committee and of the Board of Directors, and management needs.

The Board of Directors of the Bank is responsible for delineating the overall risk-management strategy and supervising the risk-management framework of the Group, directly or through the Risk Management and Control Committee. Main duties of the Board of Directors in the area of risk management are:

- Establishing the risk appetite and risk capacity framework of the Group.
- Approving a risk-management policy consistent with the risk-appetite framework, including the establishment of risk limits in the various areas of activity and main risk areas.
- Approving the control concept framework for the Group and ensuring that it meets risk-management needs.
- Providing clear guidance to senior management with regard to risk management, based on the recommendations of the Board of Management Risk Management Committee, headed by the CEO, and ensuring that senior management takes the necessary actions in order to identify, measure, monitor, and control risks.
- Approving methodologies for risk assessment and control, and for the allocation of economic capital in respect of risks.
- Supervising and monitoring the implementation of the established risk-management policy; examining the actual risk profile, including at the level of the Group; and examining the processes and actions that the Bank must apply in order to comply with all regulatory directives concerning risk management.

Board of Directors' Committee on Risk Management and Control – The committee's mission is to assist the plenum of the Board of Directors in formulating the Bank's risk-management policy, including establishing risk limits in the various areas of activity, examining the Bank's risk profile, monitoring the implementation of the established risk-management policy, and examining the processes and actions to be implemented by the Bank in order to comply with all regulatory directives concerning risk management. The Board of Directors' Committee on Risk Management and Control and the **plenum of the Board of Directors** receive reports on risks and on the execution of approved policies at least once each quarter.

US Risk Management Subcommittee – The committee's mission is to supervise risk-management policy in the Bank's activity in the United States. The subcommittee examines the risk-management policy of the Bank's activity in the United States, and ascertains that the Bank's activity in the United States is conducted within the bounds of the established risk-management policy.

Additional committees of the Board of Directors are engaged in matters related to risk management, primarily including the Audit Committee, the Committee for Monitoring the Implementation of the Resolutions with the United States Authorities, and the Corporate Governance and Stakeholders Committee.

The Board of Management of the Bank, including the managements of the divisions, is responsible for formulating, instilling, and implementing the risk-management framework of the Group, directly or through committees acting on its behalf. Main duties of the Board of Management in the area of risk management:

- Designing a risk-management policy consistent with the risk-appetite framework established by the Board of Directors, including risk limits in the various areas of activity and main risk areas, and submitting this policy to the Board of Directors for approval.
- Establishing guidelines and risk limits aligned with the policy, appropriate work methods for risk assessment, and decision-making processes based on an analysis of return/business benefit versus risk, and receiving the appropriate reports, while ensuring compliance with risk-management policy objectives.
- Ensuring the existence of an internal process for capital assessment and for setting capital targets consistent with the risk profile of the corporation and with its control environment.
- Ensuring the existence of adequate resources for risk management at the Bank, including a framework of internal controls, and the existence of independent, effective, comprehensive control and reporting systems for risks.

Board of Management Committee on Risk Management and Compliance, headed by the CEO – Responsible for designing the Bank's risk-management policy, risk limits, and reporting and control procedures, and for examining the Bank's overall risk profile, including the various risk types and factors to which the Bank is exposed.

Additional committees of the Board of Management operate in specific areas of risk, within the risk policies and limits established by the Board of Directors and the Board Committees. Committees have also been established that convene under certain conditions, including the Financial Crises Committee and the Banking Emergency Committee.

The Chief Risk Officer (CRO) and the member of the Board of Management responsible for the Risk Management Division is Ms. M. Ben Shushan Cohen.

Financial risks are managed by designated members of the Board of Management and under their responsibility.

The principal members of the Board of Management responsible for managing credit risks are the Head of Corporate Banking, Mr. I. Furman, and the Head of Retail Banking, Ms. D. Raviv.

The member of the Board of Management responsible for managing market, investment, and liquidity risks is the Head of Financial Markets and International Banking, Mr. Y. Antebi.

Legal risk is managed by Attorney Y. Almog, Chief Legal Advisor.

Technological risk, including cyber risk, is managed by Ms. E. Ben-Zeev, Head of Information Technology.

Operational risk, excluding legal risk and technological risk, is managed by each member of the Board of Management in the area of activity for which he or she is responsible.

Risk Management Division – The activities and responsibilities of the division are consistent with Proper Conduct of Banking Business Directive 310. The main objectives of the division are: to instill an advanced culture of risk management and monitoring at the Bank Group, supporting risk-taking in an informed manner, with the aim of maximizing the profitability of the Group at a risk level aligned with its risk appetite; to establish risk-management and compliance policies at the level of the Group, in line with the goals of the Group and with the requirements of the Basel Committee and of relevant regulation; and to examine and monitor the overall risk profile of the Bank and its congruence with the risk appetite set by the Board of Directors. Towards that end, the division develops and implements comprehensive and quantitative risk-assessment methodologies and models, which are also used to calculate economic capital.

The division ensures the existence and quality of the key risk-management processes of the Group: identification and assessment of risks; establishment of risk capacity and risk appetite; and establishment of mechanisms for control, monitoring of risks, and reporting. The division leads and coordinates the ICAAP (the annual Internal Capital Adequacy Assessment Process, taking risks into account) and is involved in capital ratio management processes. The division comprises four units, headed by the head of the division, who has the rank of a Member of Management: (1) the Credit Risk Management Unit, (2) the Operational and Market Risk Management Unit, (3) the Chief Compliance Officer and Securities Enforcement Unit, and (4) the Risk Integration Unit.

In general, reports of the Risk Management Division submitted to the Board of Directors' Committee on Risk Management and Control for discussion are also submitted to the plenum, as a written report or for discussion, as relevant. Pursuant to the policy of the Bank, the risk-reporting system has been established in a manner that allows effective communication both across the Group and to higher levels of the management chain. The purpose of the reports is to escalate sensitive issues or weaknesses with the potential to cause risk; the reports are performed both on an individual basis and cumulatively, up to the level of the Group as a whole. The reporting system includes the presentation of weaknesses or limitations in risk estimates, as well as significant assumptions on which the estimates are based, and includes routine reports and ad-hoc reports as needed.

The Risk Management Division also operates several committees, headed by the Chief Risk Officer:

Board of Management Committee on Credit Policy Steering – The committee formulates the credit policy of the Bank.

Board of Management Committee on Credit Review – The committee discusses credit review reports prepared for major borrowers of the Bank and for risk-based samples of the overall credit portfolio of the Bank, and examines the reliability of the credit rating and the appropriateness of the classifications and allowances of the Group.

Board of Management Committee on Debt Classification and Determination of the Provision for Credit Losses – The committee is engaged in formulating methodology for the collective allowance, formulating policy for classifications and individual allowances, classifying credit, and determining individual allowances for credit losses, subject to the hierarchy of authority.

Model Risk Management Committee – The committee formulates the model risk governance framework, manages model risk within the risk appetite, and ensures congruence with model policy and governance. The committee validates models managed in both the first and second lines.

Additional committees include the Regulatory Investment Prioritization Committee, the Monitoring and Improvement of Enterprisewide Control Aspects Committee, the Board of Management Committee on Compliance and Legal Risk Management, and the New York Risk Management Committee.

Diagram B-2: Risk and capital management governance diagram of the Bank

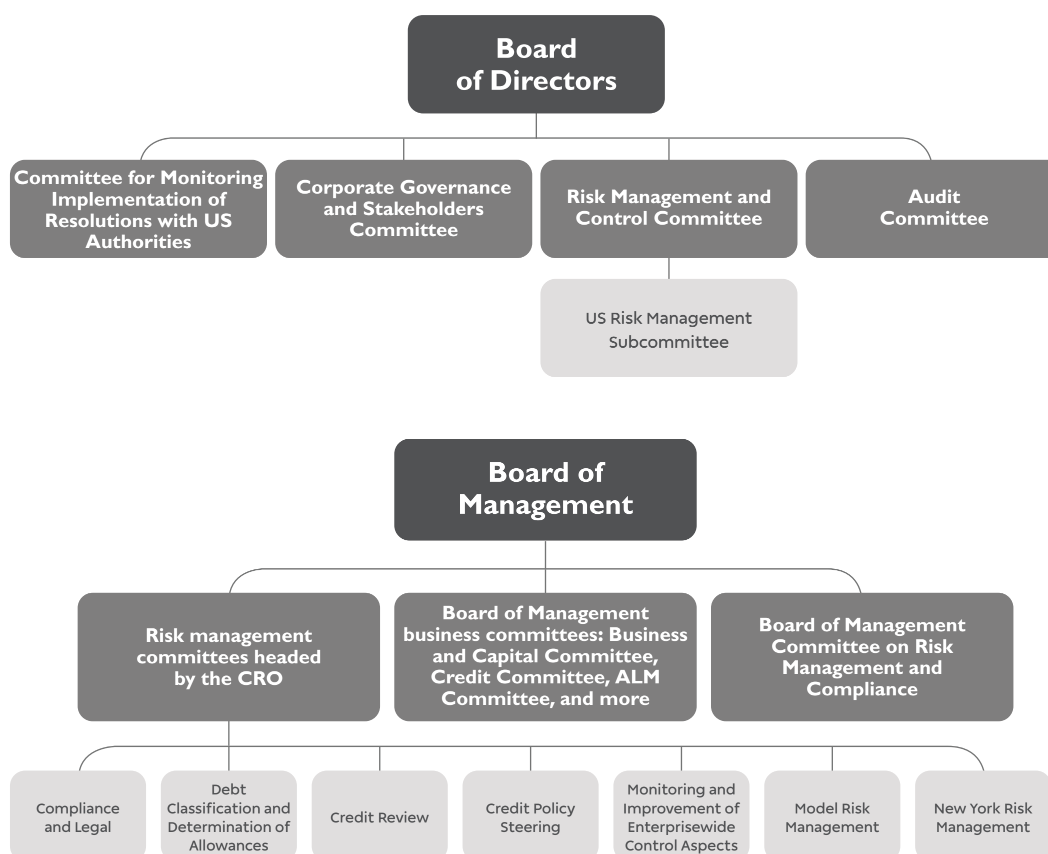
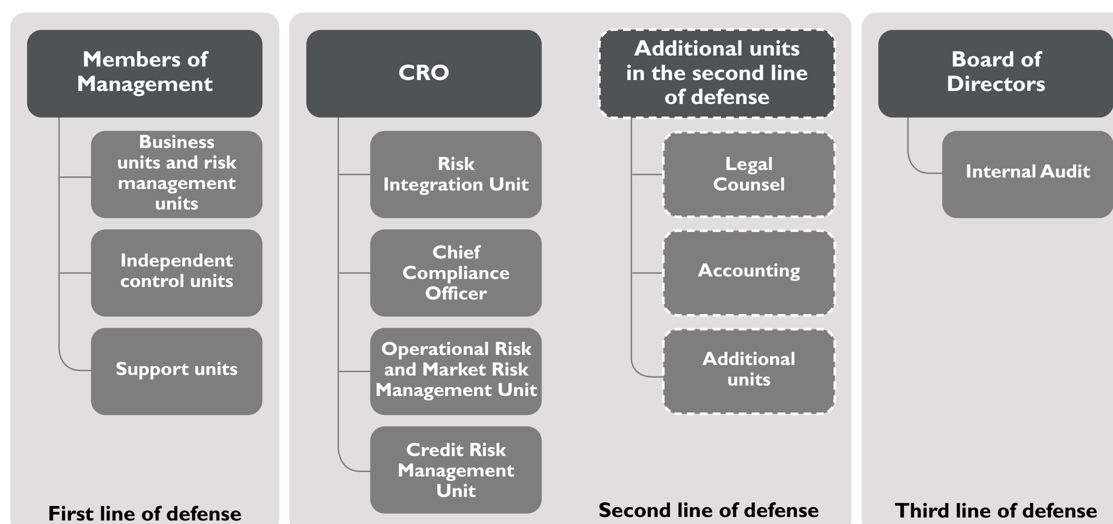


Diagram B-3: Risk management organizational structure



B.3. Risk-management culture

The Group develops and maintains a risk-management culture that supports awareness of risk, appropriate behavior and judgment in connection with risk taking in the context of corporate governance, and effective risk management; promotes appropriate risk taking; and ensures that emerging risks or risk-taking activities are identified, assessed, escalated, and addressed in a timely manner.

The risk-management culture instilled at the Bank Group emphasizes the importance of:

- Direct responsibility of division heads at the Bank and managers of subsidiaries for risks that they take within their authority;
- Achieving the proper balance between risk and reward, subject to the risk appetite;
- An effective system of controls congruent with the size and complexity of the Bank;
- The ability to challenge the quality of risk models, the level of accuracy of the data, the ability of the available tools to measure risks correctly, and the justifications for taking risks;
- Monitoring violation of limits and divergence from established policies, and applying proportional disciplinary proceedings, as necessary;
- Cultivating integrity, with a focus on fair service to customers.

The material principles of the Bank's risk-management culture are also expressed in the implementation of the following guidelines:

1. The members of the Board of Directors and senior management delineate expectations for risk-management culture.
2. The members of the Board of Directors and Board of Management develop and apply an effective framework of risk appetite, backed by a clear declaration of risk appetite, which is the cornerstone of the Bank's risk-management strategy and is integrated with its overall business strategy.
   Risk appetite: Risk appetite at the Bank constitutes an effective framework for risk management and a key tool linking the organization's strategy, capital allocation, and risk management. The risk appetite document declares the risk appetite of the Bank and of the Group. The Board of Directors establishes the risk-appetite framework, taking into consideration the recommendations of the Chief Executive Officer, the Chief Risk Officer, and the Chief Financial Officer. The risk-appetite framework defines the boundaries within which the Board of Management is expected to operate in order to realize the business strategy of the Bank. The framework includes a statement of risk appetite and risk capacity, risk limits, and descriptions of the roles and responsibilities of those charged with the implementation and control of the risk-appetite framework. For further details, see the section "Risk appetite," below.
3. Remuneration: Documents of principles and standards for remuneration practices are aimed at ensuring effective remuneration management; correlation between remuneration, cautious risk taking, and effective supervision; and involvement of stakeholders in remuneration. The remuneration of employees in general, and of senior executives in particular, takes into consideration the risks taken by the employee on behalf of the Bank, and the employee's performance in terms of fulfillment of the risk policy, compliance, and other important policy rules of the Group. The Risk Management Division is involved in establishing remuneration policies and incentives in a manner that encourages performance and talent management, and reinforces the desired risk-management behavior. For details, see the section "Remuneration disclosure" below.
4. Responsibility: Risk governance is aimed at achieving full clarity regarding risk ownership, at all levels and in all processes.

5. Effective communication and criticism: The risk-management culture of the Group promotes an environment of open communication and effective criticism, and encourages an atmosphere of open, constructive engagement.
6. An orderly system of internal regulations of the Bank, including limits, authorizations, and escalation processes supporting risk management. Appropriate procedures exist for anonymous reports of suspicions, in order to support effective compliance with the risk-management framework.
7. The code of ethics and conduct of the Bank encompasses standards, morals, colleague relationships, relationships with customers and suppliers, contribution to the community, and social and environmental responsibility. The code clarifies the ways in which these commitments and values are reflected on the behavioral level during the Bank's routine work, so that alongside its aspiration to leadership and a thriving business, the Bank's actions are grounded in a commitment to morals and values. The code is updated from time to time, and related issues are formalized in designated guidelines.

The following risk management policy documents establish, among other matters, corporate governance, including the duties and responsibilities of the Board of Directors, the Chief Risk Officer, and the risk-management function; an independent evaluation of the corporate-governance framework for risk management; and the status, resources, authority, and independence of the risk management and internal audit functions, and their reports to the committees and to the Board of Directors.

- Bank Hapoalim Group risk appetite document;
- Bank Hapoalim Group risk management policy document;
- Risk management policy document – capital and leverage ratios;
- Bank Hapoalim Group credit risk management policy document;
- Bank Hapoalim Group treasury risk management policy document;
- Bank Hapoalim Group operational risk management policy document;
- Bank Hapoalim Group control concept policy document;
- Bank Hapoalim Group new product/activity launch policy document;
- Bank Hapoalim Group model risk management, governance, and model validation policy documents;
- Bank Hapoalim Group compliance policy document;
- Bank Hapoalim Group counterparty risk management policy document;
- Bank Hapoalim Group digital banking risk management policy document;
- Bank Hapoalim Group reputational risk management policy document;
- Bank Hapoalim Group cyber risk management policy document;
- Strategic risk management policy document;
- Cloud policy document;
- Outsourcing policy document;
- Business continuity risk policy document;
- Charter of the Risk Management Division;
- Charters of the committees of the Board of Directors and committees of the Board of Management.

The structure and organization of the risk system and the risk-management culture described in this section are applicable to all types of risks and to all units of the Bank. Additional comments relevant to specific risk types, as relevant, appear later in this report.

B.4. Risk appetite

Risk appetite is a key tool for linking the organization's strategy, capital allocation, and risk management. The Board of Directors establishes the risk-appetite framework, taking into consideration the recommendations of the Chief Executive Officer, the Chief Risk Officer, and the Chief Financial Officer. The risk appetite is translated into targets and limits for the business lines. The risk-appetite framework includes policies, processes, controls, and systems used to implement, communicate, and supervise risk appetite. The risk-appetite framework includes a statement of risk appetite and risk capacity, risk limits, and outlines of the responsibilities of those charged with the implementation and control of the risk-appetite framework. The risk-appetite framework refers to the material risks to the Bank, and establishes the risk profile in alignment with the Bank's business strategy and risk capacity. An effective risk-appetite framework provides a shared structure and means for senior management and the Board of Directors to communicate, understand, and evaluate the level of risk that they are willing to accept. The framework defines the boundaries within which the Board of Management is expected to operate in order to realize the business strategy of the Bank.

The framework includes the following main components:

Risk appetite statement: A written formulation of the extent and types of aggregate risk which the Bank is interested in bearing in order to achieve its business objectives, including appropriate reports, as well as quantitative metrics of profits, capital, risk indicators, liquidity, and other relevant means, as necessary.

Risk capacity: The maximum level of risk that the Bank is able to sustain without diverging from capital limits relevant to stress scenarios, including from the perspective of shareholders and customers. Compliance with the risk capacity shall be examined, among other matters, by applying stress tests designed to estimate the impact on the Bank's profit and capital adequacy as a result of the materialization of a stress scenario.

Risk appetite: The maximum total aggregate risk that the banking corporation is willing to bear, within its defined risk capacity, in order to achieve its business objectives in accordance with the strategic plan, under various constraints (such as sources of capital and liquidity, regulatory requirements, risk/return characteristics, etc.).

Risk limits: Quantitative indicators based on forward-looking assumptions, which give practical expression to the aggregate risk-appetite statement of the Bank.

B.5. Stress scenarios

In order to understand the possible implications of various shocks for the financial robustness of the Bank, both given the existing balance sheet and upon the materialization of work plans and other business intentions, a process of stress testing is carried out. Three types of scenarios are examined at the Bank for this purpose: comprehensive systemic scenarios applied to the entire Bank Group; reverse scenarios; and single-factor scenarios applied at the level of a sector, transaction, borrower, or portfolio, in certain cases, according to predefined thresholds. The Bank adapts the various scenarios and their characteristics to financial, political, and environmental developments in Israel and globally. In addition, the Bank implements the directives of the Bank of Israel and applies a uniform stress test established by the Banking Supervision Department, when required.

Goals of analysis of stress scenarios:

- Identification of risk concentrations and potential weaknesses in the Bank's portfolio;
- Examination of the effect of strategic decisions of the Bank;
- Integration in the planning process and examination of the effects of the business plan on potential exposures;
- Examination of the financial robustness of the Bank and evaluation of the potential damage that may be caused by extreme events of various types;
- Analysis of the sensitivity of the Bank to shocks or exceptional but possible events;
- Assessment of the materiality of the various risks;
- Examination of the Bank's compliance with its risk appetite and risk capacity, and breakdown of risk appetite by division;
- Support for the business divisions in understanding the risk map of the various areas of activity and sectors;
- Support for the ICAAP and for the formulation of contingency plans in order to minimize the damage of extreme events.

Some of the scenarios are examined daily, while others are examined on a weekly, monthly, quarterly, or annual basis, as relevant. Assumptions, methodology, and results are discussed and approved by the Stress Scenarios and Risk Concentrations Committee and in meetings of the Board of Management and committees of the Board of Directors.

Capital management takes the results of various stress tests into consideration, in several ways: first, the capital target and the business plan of the Bank are determined in view of the risk capacity, which establishes the minimum capital adequacy that the Bank is willing to reach in the event of a stress scenario. Second, capital planning includes contingency plans which the Bank can activate if a stress scenario materializes, in order to improve its capital adequacy. Stress scenarios are tested for each planning year, given the capital targets and expected capital ratio, in order to ascertain that the capital planning ensures compliance with the risk capacity throughout the years of the plan. The Bank also examines the effect of a moderate stress scenario, primarily consisting of changes in the financial markets, including changes in interest rates, spreads, exchange rates, and more, on the capital-adequacy ratio, in order to measure and limit the potential erosion of the capital-adequacy ratio. In liquidity management, the Bank examines internal and regulatory liquidity scenarios.

B.6. Severity of risk factors

Pursuant to the directive of the Bank of Israel, the principal risk factors to which the Group is exposed have been mapped. The risk factors and the estimates of the Board of Management regarding the severity of risk of each factor are listed in the following table. The scale for levels of severity of the risk factors is determined with reference to the risk appetite specified by the Bank. This scale consists of five levels of severity for each risk factor. Quantitative metrics have been established for three of the levels (low, medium, and high):

- **Low severity level –** The damage to average annual profit in the years of the crisis due to materialization of the risk factor in an extreme event would be smaller than the average annual profit before tax in the ordinary course of business, so that there would be no damage to the Tier 1 capital ratio relative to the point of origin; and the annual damage to profit due to an extreme event would not exceed 150% of the average annual profit before tax in the ordinary course of business in any of the years of the crisis.
- **Medium severity level –** The damage to average annual profit in the years of the crisis due to materialization of the risk factor in an extreme event would be greater than the average annual profit before tax during the ordinary course of business, and would therefore cause a decrease in the common equity Tier 1 capital ratio of the Bank relative to the point of origin, but the common equity Tier 1 capital ratio would not fall below the level of the established risk capacity (6.5%); or the damage to profit in at least one of the years of the crisis due to an extreme event would be greater than 150% of the average annual profit before tax in the ordinary course of business, but lower than 250%.
- **High severity level –** The damage to average annual profit in the years of the crisis due to materialization of the risk factor in an extreme event would cause the capital ratio to fall below the level of the risk capacity; or the damage to profit in at least one of the years of the crisis due to an extreme event would exceed 250% of the average annual profit before tax in the ordinary course of business.

In order to quantify the effect of the risk factors on the Bank's profit and capital ratio, systemic stress scenarios and single-risk-factor scenarios are examined for most of the risks, and the scenario with the more severe effect is used in the risk-factor table. Note that this quantification refers to the effect on the capital of the Bank. There are possible scenarios that may involve a decrease in profit, or losses, with a non-negligible effect on the profitability of the Bank, but an immaterial effect on capital adequacy, which are therefore classified at a low level of severity. In addition, when the Bank estimates that the quantitative indicators do not sufficiently express the severity of the risk factor, or when it is not possible to determine the risk level of a particular risk factor using reliable quantitative methods, the assessment of the Bank is taken into consideration.

Each risk factor listed in the table below was tested in its own right, under an assumption of independence of each risk factor relative to the other risk factors listed in the table. However, for the risk factors "condition of the global economy" and "condition of the Israeli economy" in the table, systemic scenarios were tested to estimate the effect on profit and on the capital ratio of the combination of a number of risk factors. It is emphasized that the risk scenarios simulate a situation in which unexpected damages materialize beyond the expected level of damage events in the regular course of the Group's business.

The Bank also assesses the level of risk using another method, based on expert evaluations of the inherent risk level, the quality of risk management, the effectiveness of controls, and the residual risk. The inherent risk is the aggregate risk inherent in the activity in which the Bank engages, and is defined as the potential loss from this activity. Inherent risk is evaluated from a forward-looking perspective as well as in view of the past, but without taking management and control processes into consideration. In order to estimate the residual risk, taking into account management and control processes, evaluations by content experts from the second line of defense were added to the model, addressing the quality of risk management and the effectiveness of controls.

The combination of estimates using the two methods to obtain an overall assessment of residual risk, presented in the table below on a scale of five levels of severity, was performed as an expert evaluation, reflecting the input of the experts in the various areas, and is subject to all of the qualifications noted with respect to forward-looking information.

The risk level established for each risk factor is the most severe of the assessment methods described above.

Table B-4: Severity of risk factors

	Risk factor	Risk effect
Financial risks		
1.	Credit risk (including counterparty risk)	Medium
1.1.	Of which: risk in respect of the quality of borrowers and/or collateral	Medium
1.2.	Of which: risk in respect of sector concentration/exposure to credit in the construction and real-estate sectors*	Medium
1.3.	Of which: risk in respect of concentration of borrowers/borrower groups	Medium
2.	Market risk	Low-Medium
2.1.	Of which: interest-rate risk	Low-Medium
2.2.	Of which: inflation risk/exchange-rate risk	Low
3.	Share price and credit spread risk	Low-Medium
4.	Liquidity risk	Low-Medium
Operational and legal risks		
5.	Operational risk	Medium
5.1.	Of which: cyber risk	Medium
5.2.	Of which: IT risk	Medium
6.	Legal risk	Low-Medium
Other risks		
7.	Reputational risk	Low-Medium
8.	Strategic and competitive risk	Medium
9.	Regulatory and legislative risk	Medium
10.	Economic risk – condition of the Israeli economy**	Medium
11.	Economic risk – condition of the global economy	Medium
12.	Compliance risk	Medium
13.	Model risk	Medium

* This risk factor reflects the effect of the increasing growth in credit to the construction and real-estate sector and its effect on risk in the portfolio.

** The risk has increased, but at this stage it still remains within the "Medium" severity range. For further details, also see the section "Top and emerging risks," below.

B.7. Top and emerging risks

Based on the recommendations of the FSB (Financial Stability Board), a top risk is defined as a development currently occurring in the business environment of the Bank that may adversely affect the Bank's results over the course of the coming year. By contrast, with respect to an emerging risk, there is greater uncertainty regarding the timing of materialization of the risk as an occurrence with a material effect on the strategy of the Bank.

Risk management at the Bank Group is described extensively later in this report.

The Board of Management and Board of Directors of the Bank have discussed the effect of the top and emerging risks described below on the Bank; from time to time, they examine the need to adjust business strategy according to such developments.

- **Macroeconomic environment:** The activity of the Bank is dependent on the business environment, in Israel and globally. The condition of the global economy, significant changes in monetary policies and interest-rate curves, market volatility, changes in prices of financial assets in Israel and worldwide and in real-estate prices, and the economic, political, and security situation in Israel and in the region have the potential to affect the activity of the Bank. The Bank's multi-annual strategic plan includes certain assumptions regarding the macroeconomic environment, taking into consideration the existing risks in the global and Israeli economy, and balances risk and return considerations.

  The Bank estimates that a combination of economic and political factors are currently increasing the economic risks to which it is exposed. While global inflation has started to fall, it is still high and remains far from the inflation targets of the central banks; the central banks are applying restrictive policies. Globally, rising interest rates have led to adjustments of financial and non-financial asset prices; the prevailing market assessment is now that global growth will slow considerably in the coming quarters. The war in Ukraine continues, and presents another ongoing risk, if somewhat lowered by the alternatives that have been found to natural gas from Russia.

  A new government was formed in late 2022. The new government began to promote a procedure to introduce changes of the judicial system, parts of which have already been passed by the Knesset in a first reading. This plan has evoked a wave of public protest. Uncertainty in this context has led to rising volatility in the financial markets, mainly reflected in depreciation of the shekel against the currency basket, higher inflation expectations, and an increase in long-term bond yields. The uncertainty, against a background of economic slowdown and decelerating investments in the technology industry, may also have a negative effect on the credit rating of the State of Israel and on the fiscal situation in the future. Accordingly, the legislative procedure may have negative impacts on the Israeli economy, the customers of the Bank, and the Bank itself. Considering the current stage of the legislative procedure, the Bank cannot estimate the manner in which the procedure may be completed, if completed, or the extent of its impacts, such as they may be.

The increase in interest rates of the central banks in Israel and the United States has the potential to contribute positively to the results of operations of the Bank. However, a prolonged high interest-rate environment as well as more aggressive increases in the interest rate may, among other matters, raise the risks of recession, lead to changes in asset prices (including financial and real-estate assets), affect the condition of customers of the Bank, and, accordingly, have a negative effect on the results of operations and profits of the Bank. Economic indicators of recent months point to contraction of activity in some economic sectors, primarily in exports of the technology industries, as well as deceleration of private consumption and a decrease in purchases of homes. These trends were influenced by the global environment and by the high inflation and increases in interest rates, and may lead to a slower pace of lending and an increase in the credit risks to which the Bank is exposed.

For details, see the section "Economic and financial review" in the Report of the Board of Directors and Board of Management, and the section "Construction and real estate" in the section "Credit risk," below.

- **Information security risks and cyber incidents:** Increasing cyber threats to financial institutions have led to the channeling of resources in the banking industry to cope with this risk. The Bank applies frequent controls in all channels in order to prevent harmful penetration, activation of malicious software, and information leakage. These lines of defense consist of a large number of advanced information-security systems, deployed internally in the Bank's network as well as externally as a perimeter defense. Note that the transition of employees to remote work, transition to cloud computing, and increased digitization of the activity of the Bank, including an increase in remote work with customers, concurrently with an increase in threats and attempted attacks, have intensified the risk. The Bank is taking action to mitigate this risk.
- **Regulatory environment in Israel and overseas:** International regulatory reforms have implications for the business of the Bank, in Israel and overseas. In Israel, several regulatory initiatives have been formulated over the last few years, primarily concerned with increasing competition in the banking system in Israel; additional regulatory initiatives are in the process of being generated, some of which concern direct intervention in prices and interest rates in the banking industry. The regulatory initiatives and trends may affect the banking system in general and the Bank in particular. At this stage, it is too early to estimate the effects of these changes on the Bank. Further, these effects may not be immediate; instead, there may be slower, prolonged effects derived from processes of gradual change in the Bank's environment (customers, market players, etc.), alongside the gradual preparations of the Bank for the necessary adaptations of its operations.
- **Competitive and strategic risk:** Competition from big tech companies (Apple, Google, Amazon, and others), fintech companies, and digital banks, alongside the entry of new technologies, changes in customer behavior, and new business models in the financial sphere, may significantly affect the banking system, in Israel and worldwide, in the medium to long term. Concurrently, regulatory and competitive changes in the domestic arena, with an emphasis on measures aimed at increasing competition in the retail credit market, bank account switching, and open banking, as well as competition in the business sector, may affect the business results of the Bank, including its credit spreads. The Bank recently formulated a comprehensive strategic plan for the period through 2026, encompassing, among other matters, action in the areas of the core activities of the Bank, innovation, technology, the structure of operations, and more, in order to respond to such threats.

- **Compliance risk:** Pursuant to Proper Conduct of Banking Business Directive 308, compliance risk also includes risks related to the fairness of the Bank towards its customers, conflicts of interest, the prohibition of money laundering and financing of terrorism (including international sanctions), provision of advice to customers, protection of privacy (excluding information-technology aspects), taxation aspects relevant to products or services for customers, or directives of a similar nature. The materialization of this risk on the global level is reflected in the continuing investigations of banks around the world and in the fines imposed on them in connection with the violation of laws or regulations, such as in the areas of assisting tax evasion, the prevention of terrorism financing, money laundering, and investigations of corruption.
- **Environmental risk:** Around the world, the understanding has grown in recent years that the materialization of environmental risks and climate risks may cause harm to the economy, and, in extreme cases, may cause significant damage to banks and to the financial system, as a result of the materialization of financial and non-financial risks in the long term. These effects may also be expressed within other risks to which the banking corporation is exposed in the course of its activity, such as credit risk (through the effect on the financial resilience of borrowers and the value of collateral), market and investment risk, operational risk, legal risk, reputational risk, and more. These risks, particularly climate risks and the impact of processes of transition to a low greenhouse-gas emissions economy, have unique characteristics of uncertainty. At this stage, it is too early to estimate the potential long-term effects of these changes on the Bank.

For details regarding legal proceedings, see Note 25 to the Financial Statements.

For details regarding material regulatory initiatives with an effect on the activity of the Bank during the reported period, see the Corporate Governance Report.

B.8. Discontinuation of publication of the LIBOR interest rates

As of the end of 2021, the publication of the LIBOR interest rates in four currencies (euro, British pound, yen, and Swiss franc) has been discontinued. The LIBOR rates for the US dollar will continue to be published until June 2023. The LIBOR rates served as the basis for calculation of interest rates applicable to financial products denominated in or linked to principal foreign currencies with floating rates. As part of the intention to establish alternative benchmark rates for the relevant currencies, global institutions such as ISDA (International Swaps and Derivatives Association) and ARRC (Alternative Reference Rate Committee) have formulated alternatives to these interest rates, new legal language, and proposals for substitution mechanisms. The change affects the banking industry, globally and in Israel.

In accordance with the recommendation of the international committees, the rates of addition to interest rates for the conversion of financial instruments based on these rates were determined in March 2021, according to the ISDA resolutions. The Bank has prepared for the substitution of the reference rate for the financial products it offers to customers. The Bank has adapted its technological systems to the new interest rates and mechanisms.

As of January 1, 2022, the reference rates for current-account products and revolving overdrafts have been replaced with the new reference rates. For loans based on the reference rates the publication of which has been discontinued, the Bank acted in the last quarter of 2021 and is continuing to act to replace the legal agreements with the customers and convert the products at the next interest-rate change date.

The Bank is continuing to monitor the international publications, and will act with the aim of reducing the risks arising from the interest-rate substitution process.

For further details, see Note 1F to the Financial Statements.

B.9. Review of weighted risk-adjusted assets

Table B-5: Review of weighted risk-adjusted assets

		Risk-weighted assets		Minimum capital requirements*
		December 31, 2022	September 30, 2022	**December 31, 2022**
		NIS millions		
1	Credit risk (standardized approach)**	**367,207**	358,416	**49,573**
6	Counterparty credit risk (standardized approach)	**7,231**	7,434	**976**
10	Credit valuation adjustment (CVA)	**3,786**	4,269	**511**
15	Settlement risk	**-**	-	**-**
16	Securitization exposures (standardized approach)	**13**	13	**2**
25	Amounts below deduction thresholds (subject to 250% risk weight)	**8,313**	8,210	**1,122**
	Total credit risk	**386,550**	378,342	**52,184**
20	Market risk (standardized approach)	**4,007**	5,658	**541**
24	Operational risk	**25,020**	23,914	**3,378**
27	Total	**415,577**	407,914	**56,103**

* Capital requirements according to the minimum required total capital ratio, at a rate of 13.5%.

** Credit risk does not include counterparty credit risk, adjustment in respect of credit risk, settlement risk, securitization exposures, and amounts below the deduction thresholds.

Table B-6: Change in risk-weighted assets during the period

	For the year ended December 31, 2022			
	Credit risk	Market risk	Operational risk	Total risk-adjusted assets
	NIS millions			
Balance as at December 31, 2021	**363,588**	**4,097**	**22,595**	**390,280**
Changes in portfolio volume[1]	**26,928**	**(90)**	**2,425**	**29,263**
Changes in portfolio quality[2]	**(522)**	**-**	**-**	**(522)**
Changes in methodology and policy[3]	**(5,855)**	**-**	**-**	**(5,855)**
Sales[4]	**(1,275)**	**-**	**-**	**(1,275)**
Effect of changes in exchange rates	**3,686**	**-**	**-**	**3,686**
Balance as at December 31, 2022	**386,550**	**4,007**	**25,020**	**415,577**

	For the year ended December 31, 2021			
	Credit risk	Market risk	Operational risk	Total risk-adjusted assets
	NIS millions			
Balance as at December 31, 2020	321,149	3,447	23,166	347,762
Changes in portfolio volume[1]	55,429	650	(571)	55,508
Changes in portfolio quality[2]	(243)	-	-	(243)
Changes in methodology and policy[3]	(11,192)	-	-	(11,192)
Sales[4]	-	-	-	-
Effect of changes in exchange rates	(1,555)	-	-	(1,555)
Balance as at December 31, 2021	363,588	4,097	22,595	390,280

(1) The category "changes in portfolio volume" refers to change arising from changes in total balances, exposures, or income, as relevant, and does not include changes resulting from change in the quality of the portfolio.
(2) The category "changes in portfolio quality" mainly refers to changes in the risk weight of transactions and customers resulting from changes in credit rating or classification.
(3) The category "changes in methodology and policy" mainly refers to the effect of changes in regulatory directives and changes in methodologies.
(4) The category "sales" includes the effect of sales of loans.

C. Capital and leverage

C.1. Composition of capital

Table C-1: Composition of supervisory capital

		December 31, 2022	December 31, 2021	References to the supervisory balance sheet
		NIS millions		
	Common equity Tier 1 capital			
	Common equity Tier 1 capital – instruments and retained earnings			
1	Ordinary share capital issued by the banking corporation and premium on ordinary shares included in common equity Tier 1 capital	**8,212**	8,200	1+2
2	Retained earnings, including dividends proposed or declared after the balance sheet date	**41,346**	36,117	3
3	Accumulated other comprehensive income and disclosed retained earnings	**(3,056)**	(1,582)	4A+4B
5	Ordinary shares issued by subsidiaries of the banking corporation which were consolidated and are held by a third party (non-controlling interests)	**-**	8	5
6	Common equity Tier 1 capital before supervisory adjustments and deductions	**46,502**	42,743	-
	Common equity Tier 1 capital – supervisory adjustments and deductions			
10	Deferred tax assets, realization of which depends on future profitability of the banking corporation, excluding deferred tax assets arising from timing differences	**4**	28	6
14	Unrealized profits and losses resulting from changes in the fair value of liabilities due to changes in the own credit risk of the banking corporation	**17**	14	8
21	Deferred tax assets arising from timing differences in amounts exceeding 10% of common equity Tier 1 capital	**-**	-	-
26	Additional supervisory adjustments and deductions established by the Banking Supervision Department	**(264)**	(71)	-
26C	Of which: additional supervisory adjustments to common equity Tier 1 capital	**(264)**	(71)	-
26C	Of which: in respect of the efficiency plans	**(141)**	(211)	-
26C	Of which: in respect of wage tax	**-**	-	-
26C	Of which: in respect of the business of the corporation with related persons	**123**	140	
26C	Of which: in respect of expected credit losses	**(274)**	-	
26C	Of which: in respect of non-accruing housing loans	**28**	-	
28	Total supervisory adjustments and deductions in common equity Tier 1 capital	**(243)**	(29)	-
29	Common equity Tier 1 capital	**46,745**	42,772	-

Table C-1: Composition of supervisory capital (continued)

		December 31, 2022	December 31, 2021	References to the supervisory balance sheet
		NIS millions		
	Additional Tier 1 capital			
	Additional Tier 1 capital – instruments			
33	Additional Tier 1 capital instruments issued by the corporation, which are eligible for inclusion in supervisory capital during the transitional period	**-**	244	9
36	Additional Tier 1 capital before deductions	**-**	244	
	Additional Tier 1 capital – deductions			
43	Total deductions from additional Tier 1 capital	**-**	-	-
44	Additional Tier 1 capital	**-**	244	-
45	Tier 1 capital	**46,745**	43,016	-
	Tier 2 capital			
	Tier 2 capital – instruments and provisions			
46	Instruments issued by the banking corporation (not included in Tier 1 capital) and premium on such instruments	**5,281**	3,827	
47	Tier 2 capital instruments issued by the corporation, which are eligible for inclusion in supervisory capital during the transitional period	**-**	9	9
48	Tier 2 capital instruments issued by subsidiaries of the banking corporation to third-party investors	**4,236**	4,109	-
49	Of which: Tier 2 capital instruments issued by subsidiaries of the banking corporation and held by third-party investors, which are gradually deducted from Tier 2 capital	**-**	85	9
50	Collective allowances for credit losses before the effect of related tax	**4,832**	4,545	10
51	Tier 2 capital before deductions	**14,349**	12,490	
	Tier 2 capital – deductions			
57	Total supervisory adjustments to Tier 2 capital	**-**	-	-
58	Tier 2 capital	**14,349**	12,490	-
59	Total capital	**61,094**	55,506	-
	Risk-weighted assets			
	Total risk-weighted assets according to the requirements prior to the adoption of Directive 202, in accordance with Basel 3	**415,256**	389,462	-
	Of which: credit risk assets	**386,229**	362,770	-
	Of which: market risk assets	**4,007**	4,097	-
	Of which: operational risk assets	**25,020**	22,595	-
60	Total risk-weighted assets	**415,577**	390,280	-

Table C-1: Composition of supervisory capital (continued)

		December 31, 2022	December 31, 2021	References to the supervisory balance sheet
		NIS millions/percent		
	Capital ratios and capital preservation cushions			
61	Common equity Tier 1 capital	**11.25%**	10.96%	-
62	Tier 1 capital	**11.25%**	11.02%	-
63	Total capital	**14.70%**	14.22%	-
	Minimum requirements established by the Banking Supervision Department			
69	The minimum required common equity Tier 1 capital ratio is 10%; in the period of the Temporary Order, it is 9%. A capital requirement is added to this ratio at a rate representing 1% of the balance of housing loans at the dates of the financial statements, excluding housing loans for which a relief was granted under the Temporary Order.	**10.23%**	9.21%	-
71	The minimum required total capital ratio is 13.5%; in the period of the Temporary Order, it is 12.5%.	**13.50%**	12.50%	-
	Amounts below the deduction threshold (before risk weighting)			
72	Investments in the capital of financial corporations which do not exceed 10% of the ordinary share capital issued by the financial corporation and which are below the deduction threshold	**480**	1,427	-
73	Investments in the capital of financial corporations which exceed 10% of the ordinary share capital issued by the financial corporation and which are below the deduction threshold	**105**	185	-
75	Deferred tax assets arising from timing differences, below the deduction threshold	**3,436**	3,419	-
	Ceiling for inclusion of provisions in Tier 2			
76	Provision qualifying for inclusion in Tier 2, with reference to exposures under the standardized approach, before application of the ceiling	**5,198**	4,567	-
77	Ceiling for inclusion of provision in Tier 2 under the standardized approach	**4,832**	4,545	-

Table C-2: Statement of changes in components of supervisory capital

	For the year ended December 31, 2022				
	Common equity Tier 1 capital	Additional Tier 1 capital	Total Tier 1 capital	Tier 2 capital	Total capital
	NIS millions				
Balance as at December 31, 2021	**42,772**	**244**	**43,016**	**12,490**	**55,506**
Changes in capital components					
Ordinary share capital	**1**	**-**	**1**	**-**	**1**
Premium on ordinary shares	**11**	**-**	**11**	**-**	**11**
Net profit for the period attributed to shareholders of the Bank	**6,532**	**-**	**6,532**	**-**	**6,532**
Dividends	**(939)**	**-**	**(939)**	**-**	**(939)**
Unrealized losses from adjustments of securities available for sale to fair value	**(1,960)**	**-**	**(1,960)**	**-**	**(1,960)**
Effect of adoption of accounting rules concerning employee benefits, included in other comprehensive income	**486**	**-**	**486**	**-**	**486**
Adjustments in respect of the effect of the efficiency plans	**(70)**	**-**	**(70)**	**-**	**(70)**
Non-controlling interests in share capital of consolidated subsidiaries	**(8)**	**-**	**(8)**	**-**	**(8)**
Adjustments in respect of credit losses	**(90)**	**-**	**(90)**	**-**	**(90)**
Total change before supervisory adjustments and deductions	**3,963**	**-**	**3,963**	**-**	**3,963**
Change due to the effect of supervisory adjustments and deductions					
Deferred taxes, realization of which is based on the future profitability of the banking corporation	**(24)**	**-**	**(24)**	**-**	**(24)**
Unrealized gains and losses resulting from changes in the fair value of liabilities due to changes in the own credit risk of the Bank	**3**	**-**	**3**	**-**	**3**
Others	**11**	**-**	**11**	**-**	**11**
Total change in supervisory adjustments and deductions	**(10)**	**-**	**(10)**	**-**	**(10)**
Decrease in supervisory capital instruments	**-**	**(244)**	**(244)**	**206**	**(38)**
Capital instruments issued	**-**	**-**	**-**	**1,366**	**1,366**
Change in collective allowances for credit losses before the effect of related tax	**-**	**-**	**-**	**287**	**287**
Balance as at December 31, 2022	**46,745**	**-**	**46,745**	**14,349**	**61,094**

Table C-2: Statement of changes in components of supervisory capital (continued)

	For the year ended December 31, 2021				
	Common equity Tier 1 capital	Additional Tier 1 capital	Total Tier 1 capital	Tier 2 capital	Total capital
	NIS millions				
Balance as at December 31, 2020	40,070	488	40,558	10,221	50,779
Changes in capital components					
Premium on ordinary shares	17	-	17	-	17
Net profit for the period attributed to shareholders of the Bank	4,914	-	4,914	-	4,914
Dividends	(1,479)	-	(1,479)	-	(1,479)
Unrealized losses from adjustments of securities available for sale to fair value	(384)	-	(384)	-	(384)
Benefit due to share-based payment transactions	(1)	-	(1)	-	(1)
Effect of adoption of accounting rules concerning employee benefits, included in other comprehensive income	(205)	-	(205)	-	(205)
Adjustments in respect of the effect of the efficiency plans	(223)	-	(223)	-	(223)
Non-controlling interests in share capital of consolidated subsidiaries	(2)	-	(2)	-	(2)
Total change before supervisory adjustments and deductions	2,637	-	2,637	-	2,637
Change due to the effect of supervisory adjustments and deductions					
Deferred taxes, realization of which is based on the future profitability of the banking corporation	(34)	-	(34)	-	(34)
Unrealized gains and losses resulting from changes in the fair value of liabilities due to changes in the own credit risk of the Bank	(10)	-	(10)	-	(10)
Others	(21)	-	(21)	-	(21)
Total change in supervisory adjustments and deductions	(65)	-	(65)	-	(65)
Decrease in supervisory capital instruments	-	(244)	(244)	(1,372)	(1,616)
Capital instruments issued	-	-	-	3,110	3,110
Change in collective allowances for credit losses before the effect of related tax	-	-	-	531	531
Balance as at December 31, 2021	42,772	244	43,016	12,490	55,506

C.2. Capital adequacy

C.2.a. The Bank's approach to capital-adequacy assessment

The Bank applies capital measurement and adequacy directives based on the Basel directives, as published by the Banking Supervision Department.

The capital measurement and adequacy directives are based on three pillars:

- Pillar 1 – Includes the manner of calculation of the supervisory minimum capital requirements in respect of credit risks, operational risk, and market risk.
- Pillar 2 – Sets the forth internal processes (the ICAAP – Internal Capital Adequacy Assessment Process) used by banks to assess the required capital in respect of risks in aggregate, including those not covered by Pillar 1 (such as credit concentration, interest-rate risk in the banking book, liquidity risks, settlement risks, and strategic risks), as well as a review process performed by the Banking Supervision Department.
- Pillar 3 – Market discipline; this pillar requires quantitative and qualitative disclosure within the report to the public on the risks to which the bank is exposed, in order to estimate the extent of the bank's exposure to risk factors.

C.2.b. Capital-adequacy target and capital planning and management

Pursuant to the directives of the Banking Supervision Department, the Bank, as a banking corporation of significant importance (a banking corporation whose total balance sheet assets on a consolidated basis constitute at least 24% of the total balance sheet assets of the banking system in Israel), is required to maintain a minimum common equity Tier 1 capital ratio of 10.0% and a minimum total capital ratio of 13.5%. A capital requirement is added to the common equity Tier 1 capital ratio at a rate representing 1% of the balance of housing loans at the dates of the financial statements, excluding housing loans for which a relief was granted under the Temporary Order aimed at coping with the coronavirus crisis. Accordingly, the minimum common equity Tier 1 capital ratio and the minimum total capital ratio of the Bank required by the Banking Supervision Department, on a consolidated basis, as at December 31, 2022, stand at 10.23% and 13.50%, respectively.

The common equity Tier 1 capital target established by the Bank takes into consideration, among other matters, the results of the internal processes of the Bank for determining capital targets, including the results of internal stress tests run by the Bank, and the outcomes of discussions held with the Banking Supervision Department regarding the specific risk attributes of the Bank, within the most recent supervisory review process and the most recent uniform stress tests performed.

In order to comply with the capital-adequacy target and manage capital effectively, capital planning is performed at the Bank based on the work plan of the Bank and on regulatory directives, which are translated into risk-adjusted assets and changes in the various tiers of capital, while maintaining safety margins. Various sensitivity tests are applied within the planning of capital and capital ratios. The Bank also routinely monitors actual results as compared to planning, and the gaps between results and planning, and, as necessary, examines the actions needed in order to comply with the established capital targets. As part of the establishment of the internal capital targets of the Bank, as detailed below, the policy of the Bank is to maintain capital adequacy at a level higher than the minimum ratio required by the Banking Supervision Department, and not lower than the level of capital adequacy required to cover the risks as assessed in the Internal Capital Adequacy Assessment Process (ICAAP). Within the ICAAP, the Bank examines the effect of stress scenarios on capital-adequacy ratios; accordingly, a plan is in place for a return to regulatory capital adequacy in the case of a such a stress event.

Effective capital-management ensures:

- Efficient allocation of capital during the ordinary course of business of the Bank.
- A robust capital base serving as a cushion against unexpected risks to which the Bank is exposed, supporting business strategy, and allowing compliance at all times with the regulatory minimum capital requirement. For this purpose, the Bank takes into account not only the current status of capital but also future developments in the capital base and in capital requirements.

In order to maintain a thorough and effective capital-management process, a specialized department manages capital at the Bank, reporting to the CFO. The department oversees routine administration and control of all matters related to the management and planning of capital at the Bank, including the following matters: capital planning, control over capital adequacy and compliance with risk-adjusted asset objectives, contingency plans for extreme scenarios, and proactive capital management according to needs. For that purpose, the department is responsible for monitoring developments in regulation in connection with capital management, in Israel and globally, and advanced capital-management methods at banks worldwide. The department is also responsible for the implementation of methodologies for the measurement of economic capital and economic profitability. These methodologies are used to make decisions according to risk-adjusted returns at the various levels of management at the Bank. The Risk Management Division serves as the second line of defense for risk management.

Based on the processes of establishment of internal capital targets of the Bank and the results of the internal discussions held with the Banking Supervision Department (as described above), the Board of Directors of the Bank set an internal target for the common equity Tier 1 capital ratio at a rate of no less than 10.5%.

The Bank manages its capital-adequacy ratio with the aim of complying with the minimum capital requirements of the Banking Supervision Department and with the internal target, while maintaining safety margins.

The capital of the Bank and the volume of risk-adjusted assets are subject to changes, due to the following factors, among others:

- Effects of changes in the interest rate on capital reserves from bonds available for sale.
- Effects of changes in the CPI and in exchange rates on asset balances.
- Actuarial changes resulting from changes in the interest rate for the calculation of the Bank's liabilities, or other actuarial assumptions.

The sensitivity of the capital reserve in respect of bonds available for sale, net, after tax effect, to a theoretical increase of 1% in the risk-free interest rate and in the credit risk spread is estimated at a decrease in the amount of approximately NIS 0.8 billion and approximately NIS 0.5 billion, respectively. The sensitivity of the capital reserve arising from adjustments for actuarial changes, net, after tax effect, to a theoretical increase of 1% in the discount rate is estimated at an increase in the amount of approximately NIS 0.2 billion.

Capital requirements in respect of the exposures of the Bank to the government of Israel, Israeli banks, institutional entities, and public-sector entities are derived from the rating of the State of Israel.

A possible downgrade of the credit rating of the State of Israel by Standard & Poor's Rating Group is expected to lead to a reduction of 0.20% and 0.26% in the Tier 1 capital ratio and the total capital ratio, respectively.

Dividends

Dividend distribution by the Bank is subject to tests and limits set forth in the Companies Law and in the directives of the Banking Supervision Department, including Proper Conduct of Banking Business Directive 331. The dividend distribution policy of the Bank is to distribute up to 40% of quarterly net operating profit. Any distribution and the rate thereof is subject to a specific resolution of the Board of Directors of the Bank, based on its judgment at the date of the distribution, taking into account the directives of all laws, any constraints on distribution, and business considerations, in accordance with the growth strategy of the Bank.

At the dates of approval of the financial statements for the year 2021 and for the first quarter of 2022, the Board of Directors resolved to retain accumulated capital surpluses and refrain from declaring dividend distribution, due to prioritization of continued implementation of the growth strategy.

In the second quarter of 2022, the Board of Directors of the Bank resolved to resume a trajectory of ongoing dividend distribution, while continuing to maintain balanced growth. Distributions will be subject to the results of the Bank, developments in the markets and macroeconomic conditions, and the effect of the implementation of regulatory directives, as well as compliance with legal tests.

Beginning in the second quarter, the Board of Directors of the Bank announced the distribution of dividends constituting approximately 30% of net profit in each of the second, third, and fourth quarters of 2022, as detailed below. The distributions cumulatively amounted to approximately NIS 1,464 million.

On August 14, 2022, the Board of Directors of the Bank declared the distribution of dividends in the amount of NIS 403 million, which constituted approximately 30% of the net profit of the Bank for the second quarter of 2022, paid on September 7, 2022.

On November 22, 2022, the Board of Directors of the Bank declared the distribution of dividends in the amount of NIS 536 million, which constituted approximately 30% of the net profit of the Bank for the third quarter of 2022, paid on December 11, 2022.

At the date of approval of these financial statements, the Board of Directors of the Bank declared the distribution of dividends in the amount of NIS 525 million, constituting approximately 30% of the net profit of the Bank for the fourth quarter of 2022, to be paid on March 30, 2023.

C.2.c. Implementation of regulatory directives with an effect on measurement and capital-adequacy matters

Improving operational efficiency

The circulars of the Banking Supervision Department grant reliefs to banks that apply improvements in efficiency, with respect to personnel and to real estate.

The total volume of the personnel efficiency plan from 2020 to which the reliefs apply is NIS 352 million, net of tax effect. The efficiency plan of 2016, at a volume of NIS 762 million, net of tax effect, was fully recognized in supervisory capital in the financial statements as at December 31, 2021.

The effect of the aforesaid plans was recorded to capital, and, for the purposes of calculation of the capital ratio and leverage ratio, deducted from supervisory capital over a period of five years from the date of beginning of implementation of each plan.

The remaining effect of the reliefs in respect of the efficiency plans on the common equity Tier 1 capital ratio is estimated at approximately 0.04% as at December 31, 2022.

The subsidiary of the Bank in Turkey

The Bank Group currently operates in Turkey through Bank Pozitif, which operates and specializes in corporate banking.

In accordance with the strategy of the Bank, the Bank is acting to sell its investment in Bank Pozitif. Accordingly, the Bank is working to gradually reduce the credit portfolio of Bank Pozitif.

For details regarding actions taken by the Bank to sell the investment and the agreement signed to acquire the holdings of the former minority shareholder, see Note 15F to the Financial Statements.

In accordance with the requirement of the Banking Supervision Department, from January 2021 to May 2022, risk-adjusted assets in respect of the subsidiary were weighted at a rate of 600% (from January 2020 to December 2020, the required rate of weighting was 300%). In May 2022, the Banking Supervision Department approved reduction of the weighting rate to 300%. The relief has been applied beginning with the financial statements for the second quarter of 2022, and has led to an increase in the common equity Tier 1 capital ratio of the Bank of approximately 0.02%.

The Bank also has a credit line for Bank Pozitif, which was granted at an interest rate below market terms, taking into consideration the position of the Turkish regulator regarding the pricing of the credit line, and the challenging condition of the Turkish economy and of Bank Pozitif. In accordance with a requirement of the Banking Supervision Department in Israel, due to the aforesaid pricing, the balance of the credit line was deducted from supervisory capital. The credit line was renewed in December 2021, for the earlier of twelve months or the date when the Bank ceases to be a principal shareholder of Bank Pozitif. In November 2022, the credit line was renewed for twelve additional months, at a level of approximately USD 35 million, of which a total of approximately USD 22 million is utilized as at the end of December 2022.

The aforesaid effects, in total, on the common equity Tier 1 capital ratio of the Bank as at December 31, 2022, amount to a reduction of 0.04%.

Effect of the implementation of accounting principles concerning current expected credit losses on supervisory capital

The Bank has implemented United States generally accepted accounting principles concerning current expected credit losses (CECL) as of January 1, 2022. The effect of the implementation caused a decrease in the common equity Tier 1 capital of the Bank. Pursuant to the circular of the Banking Supervision Department, the Bank will record the effect of the implementation of the standard gradually, over a period of three years. The effect of the reliefs in respect of the implementation of the new rules on the common equity Tier 1 capital ratio is estimated at approximately 0.08% as at December 31, 2022.

For further details regarding the effect of the implementation of the new rules on supervisory capital, see Note 1D to the Financial Statements.

Issuance of notes with a loss-absorption mechanism

For additional information regarding the subordinated notes, see Note 20B to the Financial Statements.

In early November 2022, the Bank executed full early redemption of Subordinated Notes (Series C), in the amount of approximately NIS 1.7 billion. The Subordinated Notes (Series C) are not recognized in supervisory capital as of January 2022.

Directives pertaining to capital allocation in respect of derivative financial instruments

In March 2014, the Basel Committee on Banking Supervision (BCBS) issued updates to the Basel 3 Directives (also known as Basel 4), including a directive on the subject, "The standardized approach for measuring counterparty credit risk" (SA-CCR).

In December 2021, the Banking Supervision Department issued a circular updating directives pertaining to capital allocation in respect of derivative financial instruments. The circular is aimed at adjusting the Proper Conduct of Banking Business Directives to several new directives and updates issued by the Basel Committee in recent years that pertain to counterparty credit risk. Pursuant to the circular, Directive 203A, on the subject of the treatment of counterparty credit risk, was added. This directive contains a new approach – the standardized approach (SA-CCR), which replaces the existing approaches in Proper Conduct of Banking Business Directive 203 (the current exposure approach and the standardized approach) for the calculation of counterparty exposure at default (EAD). The main updates in the new approach refer to different treatment of netting sets that include margin adjustment agreements and netting sets that do not include margin adjustment agreements, updated supervisory risk coefficients, and the distribution of derivative exposures in netting sets to hedging sets allowing full or partial offsets of the exposures. Implementation of the directive is required as of July 1, 2022.

A circular updating Proper Conduct of Banking Business Directive 203, "Capital Measurement and Adequacy – Standardized Approach – Credit Risk," was issued on August 1, 2022. Risk weights in the calculation of capital allocation in respect of CVA risk for exposures of banking corporations to insurance companies, provident funds, and mutual funds were updated in accordance with the circular.

In accordance with the circular, due to the low risk, the Banking Supervision Department has decided to reduce the risk weight attributed to insurance companies, provident funds, and mutual funds, such that it is equal to the risk weight attributed to banking corporations.

The implementation of the new rules increases capital requirements in respect of derivative instruments, decreases the leverage ratio, and affects the calculation of the single borrower limit. The effect of the implementation of the new requirements, at the initial implementation date, led to an increase in the amount of approximately NIS 2.6 billion in credit-risk assets, and a decrease of approximately 0.07% and 0.10% in the common equity Tier 1 capital ratio and the total capital ratio, respectively. The new requirements also led to a decrease of approximately 0.06% in the leverage ratio at the initial implementation date.

Pursuant to the circular of December 2021, Directive 208A, on the subject of new approaches to capital allocation in respect of CVA risk, was also added. The directive presents several possible approaches to the calculation of the capital allocation in respect of CVA risk. According to a circular released by the Banking Supervision Department on February 21, 2022, implementation of the directive is required as of January 1, 2025.

Circular updating Proper Conduct of Banking Business Directive 203, "Capital Measurement and Adequacy – Standardized Approach – Credit Risk"

A circular updating Proper Conduct of Banking Business Directive 203, "Capital Measurement and Adequacy – Standardized Approach – Credit Risk," was issued on May 22, 2022. Pursuant to the circular, loans designated for the acquisition of land for the purpose of development or construction at a rate exceeding 80% of the value of the acquired asset (LTV) are added to the list of loans risk weighted at 150%, with the exception of loans for the acquisition of agricultural land with no planning horizon or intention to apply for a change in designation. The effect of the circular is being spread over equal quarterly installments, from September 30, 2022, to June 30, 2023. A questions and answers document was released on January 26, 2023, containing clarifications regarding the implementation of the circular. As at December 31, 2022, the effect of the implementation of the circular is an increase in risk-adjusted assets in the amount of approximately NIS 2.5 billion, which constitutes a decrease of 0.07% and 0.09% in the common equity Tier 1 capital ratio and the total capital ratio, respectively. The effect of the circular, excluding implementation of the transitional directives, leads to an additional future decrease of approximately 0.04% and 0.05% in the common equity Tier 1 capital ratio and the total capital ratio, respectively.

C.3. Leverage ratio

The Bank applies Proper Conduct of Banking Business Directive 218, "Leverage Ratio" (hereinafter: the "Directive"). The Directive establishes a simple, transparent, non-risk-based leverage ratio, which serves as a complementary measurement to risk-based capital requirements, and which is designed to limit the accumulation of leverage at banking corporations.

The leverage ratio is defined as the ratio of the capital measurement to the exposure measurement. Capital, for the purpose of measurement of the leverage ratio, is Tier 1 capital, as defined in Proper Conduct of Banking Business Directive 202, taking into consideration the transitional arrangements that have been established. The total exposure is the total of balance sheet exposures, exposures to derivatives and to securities financing transactions, and off-balance sheet items.

On November 15, 2020, the Banking Supervision Department issued a circular, as a temporary order, updating Proper Conduct of Banking Business Directive 250 concerning the leverage ratio. Banking corporations must maintain a leverage ratio of no less than 4.5% on a consolidated basis. Banking corporations whose total balance sheet assets on a consolidated basis constitute 24% or more of the total balance sheet assets in the banking system (the Bank is such a banking corporation) must maintain a leverage ratio of no less than 5.5% (instead of 6.0% prior to the relief).

The period of the relief has been extended until December 31, 2023; after that date, the requirement is to return to the leverage ratio required prior to the Temporary Order (6.0%) within two quarters.

Table C-3: Comparison of balance sheet assets to exposure measurement, for the purposes of the leverage ratio

	December 31, 2022	December 31, 2021
	NIS millions	
Total consolidated assets as per published financial statements	**665,353**	638,781
Adjustment for investments in banking, financial, insurance, or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	**-**	-
Adjustment for fiduciary assets recognized in the balance sheet pursuant to the Public Reporting Directives, but excluded from the leverage ratio exposure measurement	**-**	-
Adjustments for derivative financial instruments	**801**	(2,431)
Adjustments for securities financing transactions	**-**	-
Adjustments for off-balance sheet items	**70,140**	73,397
Other adjustments	**821**	3,764
Exposure for the purposes of the leverage ratio	**737,115**	713,511

Table C-4: Leverage ratio disclosure

	December 31, 2022	December 31, 2021
	NIS millions/percent	
On-balance sheet exposures		
On-balance sheet items (excluding derivatives and securities financing transactions, but including collateral)	**628,537**	624,661
Asset amounts deducted in determining Tier 1 capital	**(4)**	(28)
Total on-balance sheet exposures (excluding derivatives and securities financing transactions)	**628,533**	624,633
Derivative exposures		
Replacement cost associated with all derivatives transactions	**5,142**	3,735
Add-on amounts for potential future exposure associated with all derivatives transactions	**17,491**	10,781
Gross-up for collateral provided in respect of derivatives deducted from balance sheet assets pursuant to the Public Reporting Directives	**-**	-
Deductions of receivables assets for cash variation margin provided in derivatives transactions	**-**	(3,963)
Exempted central counterparty leg of client-cleared trade exposures	**-**	-
Adjusted effective notional amount of written credit derivatives	**-**	-
Adjusted effective notional offsets and add-on deductions for written credit derivatives	**-**	-
Total derivative exposures	**22,633**	10,553
Securities financing transaction exposures		
Gross securities financing transaction assets (with no recognition of netting), after adjusting for sale accounting transactions	**15,809**	4,928
Netted amounts of cash payables and cash receivables of gross securities financing transaction assets	**-**	-
Central counterparty credit risk exposure for securities financing transaction assets	**-**	-
Agent transaction exposures	**-**	-
Total securities financing transaction exposures	**15,809**	4,928
Other off-balance sheet exposures		
Off-balance sheet exposure at gross notional amount	**210,369**	223,394
Adjustments for conversion to credit equivalent amounts	**(140,229)**	(149,997)
Off-balance sheet items	**70,140**	73,397
Capital and total exposures		
Tier 1 capital*	**46,745**	43,016
Total exposures*	**737,115**	713,511
Leverage ratio		
Leverage ratio pursuant to Proper Conduct of Banking Business Directive 218	**6.34%**	6.03%
Minimum leverage ratio required by the Banking Supervision Department in the period of the Temporary Order	**5.50%**	5.50%
Minimum leverage ratio required by the Banking Supervision Department after the end of the Temporary Order	**6.00%**	6.00%

* These data include adjustments in respect of the efficiency plans, in accordance with the directives of the Banking Supervision Department (see Note 24I to the Financial Statements). The effect of the relief in respect of the efficiency plans on the leverage ratio as at December 31, 2022, estimated at an additional future decrease of approximately 0.02%, is recorded in equal parts over five years, beginning at the inception date thereof. In addition, the data include adjustments in respect of the effect of the implementation of accounting principles concerning current expected credit losses, which are gradually reduced until December 31, 2024 (see Note 24K to the Financial Statements). The effect of the relief in respect of current expected credit losses as at December 31, 2022, is estimated at an additional future decrease of approximately 0.04%.

D. Credit risk

Credit risk is the risk that a borrower or debtor may default on obligations to the Bank under a credit agreement.

The credit portfolio is a major component of the asset portfolio of the Bank Group; therefore, deterioration in the stability of the various borrowers may have an adverse effect on the Group's asset value and profitability.

Activities that create credit risk include:

- **Balance sheet exposures –** Present liabilities to the Bank, such as credit and mortgages to the public, credit to banks and deposits with banks, credit to governments, investment in bonds (corporate and other), and the balance sheet part (market value) of derivatives and financial instruments.
- **Off-balance sheet exposures –** Potential (unrealized) liabilities to the Bank, such as guarantees, unutilized commitments to grant credit, unutilized credit facilities, and potential liabilities arising from changes in the value of transactions in derivative financial instruments. The credit risk arising from transactions in derivative financial instruments is counterparty risk – the risk that the counterparty to the transaction will default before the final settlement of cash flows in the derivatives transaction. Counterparty risk is addressed separately in Section E, below.

Another risk arising from the portfolio of credit exposures is concentration risk. Concentration risk arises from non-optimal diversification of specific risks in the credit portfolio, such that the credit portfolio is insufficiently diversified across the various risk factors; for example, when the credit portfolio is composed of a small number of borrowers (name concentration) or has a high degree of exposure to a particular economic sector (sector concentration).

In accordance with the reporting directives of the Bank of Israel, this section contains items to which the Basel credit-risk framework applies, pursuant to Proper Conduct of Banking Business Directive 203, unless explicitly noted otherwise.

D.1. Management of credit risks

The goal of credit-risk management is to allow the Group to operate, and to ensure that it operates, in accordance with the policies and strategic objectives established and within the risk appetite defined in the area of credit, from the level of the single transaction to the overview of the credit portfolio.

The Bank's credit risk management policy is based on diversification of the credit portfolio and controlled management of risks. Risk diversification is reflected by the distribution of the Bank's credit portfolio among different sectors of the economy, a large number of borrowers, different linkage segments, and different geographical regions overseas. The policy of distributing risks among economic sectors is based on an evaluation of anticipated developments in the different sectors. For this purpose, the Bank conducts industry-level surveys and economic feasibility studies to evaluate the risk and business potential related to activity in the various economic sectors. The Bank's business objectives are determined in accordance with these surveys and studies.

The credit management system monitors customers' credit exposure. Credit review systems identify, monitor, and report to the responsible function and to managers on negative indications related to borrowers. Credit risk management is based on the following principles:

- **Independence –** The principle of independence is an essential element of proper corporate governance, in order to prevent conflicts of interest and create a system of checks and balances. The goal of this principle is to ensure that the information regarding risks reported to management functions, and in particular to senior management and the Board of Directors, is objective and is not influenced by other considerations, in particular considerations of business success and remuneration for such success.
- **Hierarchy of authority –** The Bank has a hierarchy of authority that outlines a sequence of credit authorizations, according to the level of debt of the borrower or group, the risk rating, and problematic debt classifications, allowing control over the process of approving new credit transactions. The hierarchy of authority provides a definition of individual credit approval thresholds and thresholds for transfer to approval committees, as well as the composition of such committees.
- **Comprehensive view of the customer/group –** Management of risk groups encompassing several borrowers who are related in terms of risk, such as a company and its subsidiaries, a married couple, etc. The activity of customers and groups is overseen by a customer manager who is responsible for all activities of that borrower/group. Information systems continuously provide customer managers and their staff with a comprehensive view of the activity of the customer/group, including the level of credit risk, and in accordance with Proper Conduct of Banking Business Directive 313.
- **Credit policies and procedures –** The Board of Directors of the Bank sets forth the credit policy, which is examined and updated routinely, according to changes in the financial markets and in the economy. This policy includes various limits on the credit portfolio, in accordance with the risk appetite of the Bank, including exposure limits by economic sector, country, or financial institution, as a function of the risk level assessed by the Bank. Limits are also imposed on the maximum exposure to a single borrower, according to the credit rating assigned to the borrower, which reflects the borrower's risk level, as well as a maximum limit for a group of borrowers.

  Credit policy includes the credit risk management policy of the corporation; it formalizes and defines the rules applicable to all parties at the Bank involved with credit risk, and is designed to serve the business goals of the Bank, in alignment with its risk policy and risk appetite, and in compliance with regulatory directives.

  Credit policy documents delineate the aspects relevant to each division (customer type, economic sector, purpose of the loan, etc.), taking risk levels into consideration.

  Adherence to the guidelines of the credit policy in carrying out business operations allows rational management of credit and credit exposures, and serves as a tool for the management of credit risks.

  The credit policies and procedures are binding for everyone involved in the area of credit at the Bank. The policy specifies the principles and considerations related to credit granting, the authority to grant credit, prohibitions and limits applied to credit granting, and the internal regulations that establish the Bank's practices and principles in the areas of credit and collateral.

  The Board of Management is also authorized to establish temporary orders stricter than the parameters in the credit policy of the Bank.

  The Risk Management Division is responsible for the overall policy of the Bank, and for formulating and coordinating the policies of the business units.

- **Controls and risk identification –** The process of reviewing and identifying credit risks is conducted by the three lines of defense. Controls are applied from the level of each individual credit item to the level of the portfolio, in the first and second lines of defense, according to materiality thresholds. The Credit Risk Management Unit leads and coordinates reports to the Board of Management and Board of Directors regarding trends and changes in the credit portfolio, including the level of credit risk in the portfolio, compliance with limits, special events, analysis of concentration, stress scenarios, and presentation of general risk indicators, in Israel and globally.

  In the third line of defense, Internal Audit is responsible, among other matters, for reviewing the implementation and effectiveness of risk-management procedures and risk-assessment methodologies, including the implementation of risk management and control policies at the Bank.

  The identification of credit risk in existing products is based on risk management, measurement, and control processes at the various levels. The identification of risk in new products relies on the policy for new products, which specifies the processes to be followed for each new product at the Bank in order to identify all risks involved in the product, assess the extent and materiality of such risk, and provide solutions for the measurement, control, and hedging of the risk.

  A quarterly and annual process has been designed in order to identify risk concentrations and examine the potential implications of various shocks (financial, political, and others) for the financial robustness of the Bank. This process includes definition, examination, and reporting of the results of stress scenarios, and mapping of the effects on profit and on capital adequacy.
- **Credit risk quantification and measurement on several levels –** The level of the individual borrower, borrower groups by area of activity, sectors of the economy, segments of borrowers, products, and the overall portfolio of the Bank and of the Group. Processes for risk quantification and measurement and for the ranking of borrowers and of credit have been developed and implemented for each area of activity and type of credit. These processes combine assessments by credit experts with decision-making processes and advanced statistical models.
- **Identification and treatment of borrowers in distress –** The Bank has established procedures for the identification and handling of borrowers who, according to the Bank's evaluation, may default on their obligations to the Bank. The Credit Analysis Department and the Credit Review Department in the Risk Management Division determine, in the opinion they prepare, whether the specific customer should be included in the Bank's watch list, whether the customer's rating requires classification, and whether an allowance for credit losses is necessary. Customers identified for a watch list are discussed as part of the quarterly process of examining the fairness of classifications. These borrowers are supervised and monitored more closely, and the Bank works to reduce its exposure to them by redeeming credit from the borrowers' resources and/or by obtaining additional collateral from them. In certain cases, customers are transferred to a unit specializing in monitoring and restructuring of customers' debt, or to debt collection units. In addition, the Bank regularly reviews the level of credit risk in borrower portfolios on the basis of conservative assumptions, classifies problematic credit risk according to the directives of the Bank of Israel (non-accruing, substandard, or special mention), and records a sufficient allowance for credit losses in respect of the total credit risk at the Bank.

- **Uniform instruction and training –** Employees involved in the area of credit undergo training and instruction on credit, foreign trade, and mortgages. These sessions provide uniform training to all those involved in this area, imparting professional tools and teaching the Bank's policies and principles in the area of credit. Lessons-learned processes based on various credit events are conducted by the units and communicated to the relevant functions, in accordance with the internal regulations of the Bank.
- **Hedging and risk mitigation –** See below.

D.1.a. Structure and organization of the credit risk management function

Corporate governance for risk management relies on three lines of defense, which are clearly separated from one another.

The approach taken with regard to control of all financial risks at the Bank involves identification and assessment of the risks, and control of compliance with the limits established in the various internal regulations, through three lines of defense. The lines of defense are presented below, according to the degree of their independence from the professional function responsible for taking the risk.

First line of defense

The business units are responsible for identifying, assessing, measuring, monitoring, mitigating, and reporting all risks inherent in products, activities, processes, and systems under their responsibility, as well as for managing an appropriate control environment in the context of risk management.

The first level of the first line of defense includes the units that manage business activity and create credit risks, in Israel and overseas.

Further controls are performed at the second level of the first line of defense, in addition to those carried out in the units that create risk as part of the routine management of their business. This line of defense includes the internal credit and control units within the business divisions and at the Bank's overseas offices:

- Corporate Credit Unit – Corporate Banking Division;
- Retail Credit Area – Retail Banking Division;
- Credit Mortgages Tribe – Retail Banking Division;
- Overseas Credit Review Department – Financial Markets and International Banking Division;
- Banks and Financial Institutions Department – Financial Markets and International Banking Division;
- Exposure and Risk Management System – Financial Markets and International Banking Division.

Second line of defense

The second line of defense supplements the risk-management activities of the business lines. This function has a reporting structure that is independent of the business lines that generate risk; it is responsible for planning, maintaining, and continually developing the working framework for risk management at the banking corporation.

This line of defense includes:

- The Credit Risk Management Unit, which serves as the independent oversight unit for the management and analysis of credit risks, as part of the second line of defense. The unit reports to the Head of Risk Management and is independent of credit underwriting and approval processes.

  The unit is responsible for the following areas:
  - Developing methodologies for the identification, control, and management of credit risks.
  - Developing, running, and monitoring credit risk measurement models.

- Setting risk estimates in automated underwriting models and decision-support models.
- Developing models for the allocation of economic capital in respect of credit risk to the various segments.
- Monitoring credit exposure, the level of credit risk, and compliance with the credit limits of the Group on a monthly and quarterly basis.
- Overseeing and reporting to the Board of Management and Board of Directors on the development of the credit portfolio of the business divisions.
- Developing methodology and applying and analyzing stress scenarios in respect of credit risk at the level of the Bank and the Group.
- Developing methodology and monitoring, measuring, and analyzing credit concentration risk.
- Responsibility for the credit policy of the Bank, and leading the processes of writing and updating the policy book.
- Developing methodologies, implementing methodologies in calculation systems, and running and analyzing results for the collective allowance in accordance with the CECL standard.
- Performing statistical analysis of the portfolio of exposures and of the various segments.
- Analyzing credit-risk aspects of new products and strategic plans.
- Examining the balance between profitability and risk in remuneration models and metrics of the business units.
- Establishing the implications of environmental and climate risk management in credit and investment risk management frameworks.
- Preparing credit review reports through risk-based samples in various credit focus areas at the Bank, in Israel and overseas. Preparing a written opinion addressing credit applications and credit ratings, in which the transaction is analyzed and, as relevant, the judgment exercised by the business function is challenged.
- Examining applications to upgrade ratings.
- Overseeing credit classifications and credit losses.
- Overseeing reporting on the fairness of classifications and total allowances (collective and individual).

Third line of defense

Internal Audit operates independently and objectively as a third line of defense. Its goals include helping the organization achieve its objectives by recommending risk mitigation through improved controls. Internal Audit operates under laws, regulations, the Banking Rules (Internal Audit), Proper Conduct of Banking Business Directives, professional guidelines of the Institute of Internal Auditors in Israel, guidelines of the Board of Directors' Audit Committee and of the Board of Directors, and management needs.

D.1.b. Credit risk management tools

Credit exposures are automated, allowing analysis and reporting on various dimensions. Information systems continuously provide a comprehensive view of the activity of the customer/group, including the level of credit risk. A comprehensive view of corporate clients is overseen in accordance with Directive 313 of the Bank of Israel and the internal regulations of the Bank, in order to obtain a full picture of risk groups reflecting ownership relationships and economic dependency relationships.

Alerts of events that may indicate worsening of the customer's condition are sent to the desktop of the officer responsible for that customer, based on internal systems and external information.

Credit risk management processes include models for estimating credit risk. Credit risk rating is used to identify changes in the risk level of the borrower and of the portfolio. The Credit Risk Management Unit has developed and implemented models for estimating credit risk, which establish ratings for borrowers and for credit. These models combine assessments by credit experts with advanced statistical models. The rating models are embedded in credit processes at the various divisions and integrated with the processes of making credit decisions, pricing credit, credit policy, identifying customers in distress, and monitoring the quality of the portfolio and of borrowers.

Risk at the level of the overall portfolio of the Group is monitored by the Credit Risk Management Unit. A summary report including credit exposures, risk in the portfolio, trends and changes, special events, and various indicators of risk levels is presented for discussion to the Board of Management of the Bank, the Credit Committee of the Board of Directors, and the Risk Management and Control Committee of the Board of Directors.

Additional credit risk management tools include analyses of concentration of the portfolio of exposures and analysis of extreme scenarios.

D.2. Hedges and risk mitigation

The Bank manages credit collateral through a collateral system that includes conservative safety margins. Within collateral policy, principles and rules have been set forth to determine the value of collateral with respect to its type and the type of credit that it secures, such as: the estimated time range and expenses necessary for realization of the collateral, type of indexation, volatility in the value of the collateral, etc. Procedures have also been defined for the processing of collateral and for monitoring changes in collateral and in the value thereof.

Collateral received by the Bank to secure credit includes financial assets, real-estate assets, and other assets. Against credit granted to companies, the Bank also receives collateral in the form of general floating liens on the companies' assets.

The Bank examines the use of additional risk mitigation tools, as necessary, including loan sales, acquisition of insurance, and use of credit derivatives.

See "Credit risk mitigation," later in this section.

D.3. Problematic debts and borrowers in distress

Indicators have been established in the policy on classifications and allowances for identifying customers with negative signs who appear likely to be problematic. In addition, the Credit Analysis Department and the Credit Review Department in the Risk Management Division determine, in the opinions they prepare regarding the various borrowers, whether customers who appear to be problematic should be escalated for examination, and whether they should be added to a watch list or their debt should be assigned a classification. Customers escalated for the first time and existing customers on the watch list are examined individually by a designated unit (the Credit Review and Classifications Department in the Risk Management Division) and discussed within the quarterly process of examining the appropriateness of classifications. These borrowers are supervised and monitored more closely, and the Bank works to reduce its exposure to them by redeeming credit from the borrowers' resources and/or by obtaining additional collateral from them. In certain cases, customers are transferred to a unit specializing in monitoring and restructuring of customers' debt, or to debt collection units. In addition, the Bank regularly reviews the level of credit risk in borrower portfolios on the basis of conservative assumptions, classifies problematic credit risk according to the directives of the Bank of Israel and according to the established classification guidelines (special mention, substandard, or non-accruing), and records a sufficient allowance for credit losses in respect of the total credit risk at the Bank.

D.3.a. Classification definitions

Special mention

Special mention credit risk includes balance sheet and off-balance sheet credit risk with potential weaknesses that should be given special attention by management. If not addressed, these potential weaknesses could result in deterioration of the probability of repayment of the credit or of the status of the Bank as a creditor at a certain future date. Off-balance sheet credit risk is classified as special mention if there is at least a possibility that the contingent liability in respect of the off-balance sheet item may be realized. Credit not examined individually (lower than NIS 1 million) is automatically classified as special mention when the debt is past due by more than 60 days, up to 89 days.

Substandard

Substandard credit risk includes balance sheet and off-balance sheet credit risk insufficiently protected by the present established value and repayment capability of the borrower or of the pledged collateral, if available. Credit risk assigned this classification must have well-identified weaknesses that jeopardize the realization of repayment of the debt, such that there is a clear possibility that the Bank may incur some degree of loss if the deficiencies are not remedied. Off-balance sheet credit risk is classified as substandard if there is at least a possibility that the contingent liability in respect of the off-balance sheet item may be realized.

Credit not examined individually (lower than NIS 1 million) is automatically classified as substandard when the debt is past due by 90 days or more.

Non-accruing debt

Beginning January 1, 2022, the existing definitions in the directives with regard to impaired debts and impaired credit risk were replaced with definitions of non-accruing debts and non-accruing credit risk. For further details, see Note 1F(1) to the Financial Statements.

Credit risk is classified as non-accruing when, based on current information and events, the Bank expects to be unable to collect the full amounts owed to it according to the original contractual terms with the client. The decision to classify credit as non-accruing is based, among other factors, on the past-due status of the debt; an assessment of the financial condition and repayment capability of the borrower; the existence and condition of collateral; and the financial condition of guarantors, if any. In any case, debt assessed on an individual basis is classified as non-accruing when the principal or interest in respect of the debt is past due by 90 days. Non-accruing debt regains the status of debt that resumes accruing interest income only when there are no principal or interest components in respect of the debt that are due but have not been paid, and the Bank expects the remaining principal and interest to be repaid in full, in accordance with the terms of the contract.

In exceptional cases, past-due exposures (over 90 days) are not considered impaired when the Bank expects the full amount past due to be repaid using a cash-flow repayment source within a short period.

Definition of past-due debt

Past-due debt

Debt in which principal or interest have not been paid on time, in reference to the contractual repayment terms. A current account or a current drawing account shall be reported as a past-due debt when the account remains continuously at a negative balance (in the absence of an approved credit facility), or in deviation from the approved credit facility, for 30 days or more; or if, within the credit facility, amounts are credited to the account that are lower than the negative balance and the credit facility, for a period of 180 days. Loans shall be reported as past-due debt when the principal or interest have not been paid after 30 days have elapsed from the scheduled date of payment according to the contractual repayment terms of the debt.

Troubled debt restructuring

Troubled debt restructuring is defined as a debt in respect of which, for economic or legal reasons related to financial difficulties of the borrower, the Bank has granted a concession, in the form of a change in the terms of the debt, in order to ease the burden of cash payments for the borrower in the near term (reduction or postponement of cash payments required of the borrower), or in the form of the acceptance of other assets as partial or full settlement of the debt.

In order to determine whether a debt modification executed by the Bank constitutes troubled debt restructuring, the Bank performs a qualitative examination of all of the terms of the modification and the circumstances under which it was executed, with the aim of determining whether the debtor is experiencing financial difficulties and whether the Bank granted the debtor a concession within the modification. In order to make this determination, the Bank examines the ability to collect from the customer and considers whether there are signs indicating that the borrower is experiencing difficulties at the time of the modification, or that there is a reasonable probability that the borrower would fall into financial difficulties without the modification.

Provision for credit losses

Individual allowance

Debts in respect of which the provision for credit losses is examined on an individual basis include debts with a total contractual balance (without deducting charge-offs, unrecognized interest, allowance for credit losses, or collateral), aggregated at the level of the customer, of more than NIS 1 million, as well as debts of customers undergoing troubled debt restructuring. An individual allowance for credit losses is considered for every debt classified as non-accruing.

The individual provision for credit losses is assessed based on expected future cash flows, discounted at the original interest rate of the debt, or based on realization of the assets of the debtor. When it has been determined that repayment of the debt is contingent upon collateral, or when the Bank determines that seizure of an asset is expected, the individual allowance is assessed based on the fair value of the collateral pledged to secure the debt, following the application of cautious, consistent coefficients that reflect, among other factors, the volatility of the fair value of the collateral, the time that will elapse until the actual date of realization, and the expected costs of selling the collateral.

Collective allowance

The Bank has implemented United States generally accepted accounting principles concerning current expected credit losses (CECL) (ASC 326) as of January 1, 2022. Following the implementation of these principles, the calculated allowance for current expected credit losses is estimated on a collective basis (excluding borrowers regarding which the Bank has not identified common risk characteristics with other borrowers, for which the allowance is calculated on an individual basis). The allowance for credit losses is calculated based on the expected loss over the lifetime of the credit. In addition, the estimate of the allowance for credit losses involves significant use of forward-looking information, which reflects reasonable, supported forecasts of future economic events.

The Bank estimates expected credit losses using an advanced method based on an economic estimate of the lifetime expected loss, through an estimate of the components of the credit loss: probability of default (PD), loss given default (LGD), and the balance of credit, taking into account repayments and future utilization of off-balance sheet credit facilities (exposure at default – EAD), including macroeconomic adjustments and adjustments in respect of qualitative factors.

Data in this method are primarily based on existing internal information at the Bank; in cases of information limitations, expert evaluations were included.

Macroeconomic adjustments are based on forecasts of the Bank regarding macroeconomic parameters including unemployment rates, the consumer price index, the housing price index, gross national product, private consumption, and average wages.

Adjustments to the model in respect of qualitative factors refer, among other matters, to political and environmental attributes; rapid growth in credit; lending policies and procedures of the Bank, including changes in lending strategy; underwriting processes; and additional factors. In this context, with regard to adjustments applied in the real-estate sector, see the section "Construction and real estate," below.

Other-than-temporary impairment of bonds

To determine whether impairment of bonds is other than temporary, the examination includes several stages and principles, in accordance with the policy established at the Bank, primarily the following:

A determination of whether the impairment is other than temporary, and of the amount of the impairment:

- Bonds which, at the balance sheet date, the Bank does not intend to hold, or bonds sold after the balance sheet date at less than cost.
- Bonds the value of which has decreased by more than 15% relative to the adjusted cost, when the decrease in value has persisted for more than six months, unless it can be demonstrated that special circumstances prevailed.
- Bonds the value of which has decreased by more than 30% relative to the adjusted cost, at or after the balance sheet date, unless it can be demonstrated that special circumstances prevailed.
- Bonds with a rating downgraded to below Investment Grade.
- Bonds classified as problematic (non-accruing, substandard, special mention) by the Bank.

For further details regarding impairment of bonds, see Note 1E to the Financial Statements, Section 8(b).

D.4. Credit quality of credit exposures

The Bank has implemented United States generally accepted accounting principles concerning current expected credit losses (CECL) as of January 1, 2022, prospectively. Within this process, the term "impaired credit" has been eliminated, and non-accruing credit is presented instead. Accordingly, accruing debts previously classified as impaired debts are not stated within non-accruing debts, and housing loans past due by 90 days or more, previously classified as accruing debts, are classified as non-accruing debts. For further details regarding the implementation of the directive and the effect thereof, see Note 1D, Note 13, and Note 29 to the Financial Statements.

Table D-1: Credit risk indicators

The Bank has implemented United States generally accepted accounting principles concerning current expected credit losses (CECL) as of January 1, 2022, prospectively. However, in this table, for the purpose of analysis of changes in credit risk, data referring to December 31, 2021, were restated to reflect the allowance and the change in classifications due to the implementation of the directive. For further details, see Note 1D to the Financial Statements.

	As at							
	December 31, 2022				December 31, 2021			
	Commercial	Private individuals – housing loans	Private individuals – other	Total	Commercial	Private individuals – housing loans	Private individuals – other	Total
Analysis of quality of credit to the public								
Non-accruing credit as a percentage of the balance of credit to the public	**1.15%**	**0.45%**	**0.60%**	**0.87%**	1.39%	0.52%	1.36%	1.11%
Balance of credit to the public, non-accruing or past due by 90 days or more, as a percentage of the balance of credit to the public	**1.17%**	**0.45%**	**0.72%**	**0.89%**	1.41%	0.52%	1.48%	1.13%
Problematic credit as a percentage of the balance of credit to the public	**2.24%**	**0.45%**	**1.90%**	**1.63%**	3.26%	0.52%	2.06%	2.26%
Credit not at credit execution rating as a percentage of the balance of credit to the public	**5.10%**	**1.02%**	**9.44%**	**4.16%**	6.89%	2.94%	9.15%	5.84%
Analysis of provision for credit losses in the reported period								
Provision for credit losses as a percentage of the average balance of credit to the public	**(0.08%)**	**0.06%**	**0.11%**	**(0.02%)**	(0.30%)	(0.21%)	(1.24%)	(0.37%)
Net charge-offs as a percentage of the average balance of credit to the public	**(0.05%)**	**-**	**0.07%**	**(0.03%)**	(0.09%)	-	(0.07%)	(0.06%)
Analysis of allowance for credit losses in respect of credit to the public								
Total allowance for credit losses* as a percentage of credit to the public	**2.17%**	**0.41%**	**2.64%**	**1.64%**	2.44%	0.39%	2.62%	1.80%
Allowance for credit losses in respect of credit to the public, as a percentage of the balance of credit to the public	**1.80%**	**0.38%**	**2.55%**	**1.41%**	1.99%	0.36%	2.49%	1.51%
Allowance for credit losses as a percentage of the balance of non-accruing credit to the public	**156.43%**	**83.82%**	**427.14%**	**160.71%**	143.39%	68.91%	183.90%	137.02%
Allowance for credit losses as a percentage of the balance of credit to the public, non-accruing or past due by 90 days or more	**154.16%**	**83.82%**	**353.15%**	**156.90%**	141.43%	68.91%	168.22%	134.17%
Ratio of allowance for credit losses to net charge-offs	**34.6**	**(243.5)**	**(39.0)**	**58.3**	24.1	410.0	34.7	27.4

* Including the allowance in respect of off-balance sheet balances.

Note:
The rates calculated above refer to provisions in respect of credit to the public only, without credit losses in respect of banks and governments.
Credit to the public – before deduction of the allowance for credit losses.

Portfolio quality analysis

The following credit risk indicators decreased (improved) in 2022, compared with the end of 2021:

- Non-accruing credit as a percentage of the balance of credit to the public, for the Bank as a whole and for each segment.
- The balance of credit to the public, non-accruing or past due by 90 days or more, as a percentage of the balance of credit to the public, for the Bank as a whole and for each segment.
- Problematic credit as a percentage of the balance of credit to the public, for the Bank as a whole and for each segment.
- Credit not at credit execution rating as a percentage of the balance of credit to the public, for the Bank as a whole and for the sub-segments, with the exception of the segment of private individuals.
- Net charge-offs as a percentage of the average balance of credit to the public, for the Bank as a whole and for each segment (with the exception of housing credit, where the percentage of charge-offs remains zero).
- The allowance for credit losses as a percentage of the balance of credit to the public decreased, mainly influenced by recoveries in respect of individually examined debts. The improvement was influenced by the commercial credit segment. However, a slight increase was recorded in the private individual segment and housing loan segment, reflecting, among other matters, the increase in the interest rate, the uncertainty with regard to economic conditions, and the probability of a crisis.

In the indicator of the provision for credit losses as a percentage of the average balance of credit to the public of the Bank as a whole, income was recorded, similar to the data for 2021 but to a lesser extent.

The Bank estimates that the quality of the credit portfolio is good, as reflected in the indicators above. However, the changes in the economic environment indicate an increase in the probability of worsening of macroeconomic conditions, and correspondingly, a higher probability of an increase in the level of borrowers' credit risk.

Changes in terms of debts within measures to cope with the crisis of the spread of the coronavirus

As part of the measures to cope with the coronavirus, changes in terms of debts were applied which were not classified as troubled debt restructuring, in accordance with the instructions of the Banking Supervision Department. As at December 31, 2022, the balance of debts in deferral of payments is immaterial.

State-backed loans

In view of the coronavirus outbreak of early 2020, the State resolved on the establishment of a dedicated loan fund, primarily to assist business clients experiencing cash-flow difficulties as a result of the outbreak. The terms of the loans were determined by the Ministry of Finance, and are uniform for all types of borrowers: the loans are for a period of up to ten years, at an interest rate of Prime + 1.5%, and include certain reliefs approved as part of the plan, within which loan payments can be deferred.

As at December 31, 2022, the balance of state-backed loans is NIS 3,299 million (December 31, 2021: NIS 5,009 million), primarily granted to small-business and microbusiness clients.

Table D-2: Credit quality of credit exposures

		December 31, 2022			
		Gross balances		Allowances for credit losses or impairment	Net balances
		Non-accruing or past due by 90 days or more	Others		
		NIS millions			
1	Debts, excluding bonds	**3,527**	**410,005**	**5,564**	**407,968**
2	Bonds	**-**	**103,369**	**17**	**103,352**
3	Off-balance sheet exposures	**813**	**208,507**	**935**	**208,385**
4	Total	**4,340**	**721,881**	**6,516**	**719,705**

		December 31, 2021			
		Gross balances		Allowances for credit losses or impairment	Net balances
		Impaired or past due by 90 days or more	Others		
		NIS millions			
1	Debts, excluding bonds	4,296	369,018	5,112	368,202
2	Bonds	-	67,455	-	67,455
3	Off-balance sheet exposures	812	221,325	797	221,340
4	Total	5,108	657,798	5,909	656,997

For further details, see Table 3-4: Additional information regarding changes in non-accruing credit to the public, in the Report of the Board of Directors and Board of Management.

D.5. Credit risk exposures

D.5.a. Details of exposures by economic sector

Table D-3: Details of exposures by economic sector in Israel

	December 31, 2022									
	Total credit risk[1]			Debts[2] and off-balance sheet credit risk (excluding derivatives)[3]						
								Credit losses for the year ended December 31, 2022[4]		
	Total	Credit execution rating[5]	Problematic[6]	Total	Of which: debts[2]	Problematic[6]	Non-accruing	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses[10]
	NIS millions									
In respect of borrower activity in Israel										
Public – commercial										
Agriculture	**3,393**	**3,261**	**23**	**3,380**	**2,820**	**23**	**3**	**(25)**	**(37)**	**48**
Mining and quarrying	**1,754**	**1,138**	**612**	**1,754**	**1,142**	**612**	**610**	**(533)**	**-**	**184**
Industry	**31,481**	**30,570**	**487**	**30,919**	**16,637**	**485**	**157**	**70**	**(23)**	**335**
Construction and real estate – construction[7]	**101,927**	**99,490**	**1,007**	**101,819**	**47,152**	**1,007**	**610**	**(165)**	**(79)**	**834**
Construction and real estate – real-estate activities	**36,900**	**36,325**	**109**	**36,643**	**30,844**	**109**	**72**	**173**	**(56)**	**635**
Electricity and water supply	**13,714**	**13,249**	**291**	**13,127**	**7,175**	**291**	**107**	**49**	**39**	**512**
Commerce	**39,133**	**37,566**	**582**	**38,954**	**28,179**	**582**	**242**	**(23)**	**5**	**323**
Hotels, hospitality, and food services	**11,567**	**10,353**	**182**	**11,546**	**9,999**	**182**	**117**	**(7)**	**(6)**	**185**
Transportation and storage	**12,891**	**11,944**	**529**	**12,794**	**8,853**	**526**	**237**	**121**	**12**	**358**
Information and communications	**7,551**	**6,866**	**144**	**7,501**	**5,213**	**144**	**131**	**31**	**(11)**	**142**
Financial services	**51,736**	**51,521**	**29**	**38,237**	**27,684**	**29**	**22**	**(128)**	**(4)**	**184**
Other business services	**17,243**	**15,949**	**252**	**17,106**	**11,298**	**252**	**116**	**84**	**13**	**247**
Public and community services	**9,089**	**8,403**	**407**	**9,083**	**6,801**	**407**	**387**	**57**	**6**	**246**
Total commercial[8]	**338,379**	**326,635**	**4,654**	**322,863**	**203,797**	**4,649**	**2,811**	**(296)**	**(141)**	**4,233**
Private individuals – housing loans	**134,643**	**133,342**	**572**	**134,643**	**127,527**	**572**	**572**	**72**	**2**	**515**
Private individuals – other	**52,896**	**49,437**	**670**	**52,892**	**35,054**	**670**	**211**	**40**	**22**	**927**
Total public – activity in Israel	**525,918**	**509,414**	**5,896**	**510,398**	**366,378**	**5,891**	**3,594**	**(184)**	**(117)**	**5,675**
Banks in Israel[9]	**1,391**	**1,391**	**-**	**1,206**	**255**	**-**	**-**	**1**	**-**	**1**
Israeli government	**68,613**	**68,613**	**-**	**771**	**768**	**-**	**-**	**-**	**-**	**-**
Total activity in Israel	**595,922**	**579,418**	**5,896**	**512,375**	**367,401**	**5,891**	**3,594**	**(183)**	**(117)**	**5,676**

(1) Balance sheet credit risk and off-balance sheet credit risk,[3] including in respect of derivative instruments. Includes debts,[2] bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 367,401; 67,788; 316; 2,468; and 157,949 million, respectively.
(2) Credit to the public, credit to governments, and deposits with banks (excluding deposits with the Bank of Israel), excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item "other assets").
(3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness.
(4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item "other liabilities").
(5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
(6) Balance sheet and off-balance sheet non-accruing, substandard, or special mention credit risk.
(7) Including balance sheet credit risk in the amount of approximately NIS 447 million and off-balance sheet credit risk in the amount of approximately NIS 628 million extended to certain purchasing groups currently in the process of construction.
(8) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 72 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.
(9) Excluding cash balances of the Bank and deposits with the Bank of Israel, and before deducting the allowance for credit losses.
(10) The collective allowance component in respect of qualitative adjustments arising from the pace of growth of the balances of credit for construction and real estate and reliefs in underwriting is included, as of June 30, 2022, as part of the allowance for credit losses in the construction and real-estate sectors, similar to its inclusion prior to the implementation of the directives of the Bank of Israel concerning current expected credit losses (CECL).

Table D-3: Details of exposures by economic sector in Israel (continued)

	December 31, 2021										
	Total credit risk[1]			Debts[2] and off-balance sheet credit risk (excluding derivatives)[3]							
								Credit losses for the year ended December 31, 2021[4]			
	Total	Credit execution rating[5]	Problematic[6]	Total	Of which: debts[2]	Problematic[6]	Non-accruing	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses
	NIS millions										
In respect of borrower activity in Israel										
Public – commercial										
Agriculture	3,302	3,119	35	3,293	2,574	35	8	(29)	(27)	15
Mining and quarrying	2,225	1,375	845	2,223	1,437	844	776	2	-	699
Industry	34,554	33,516	539	34,028	15,688	539	178	(28)	52	280
Construction and real estate – construction[7]	95,350	93,465	873	95,193	42,343	873	557	103	(124)	798
Construction and real estate – real-estate activities	35,698	34,927	212	35,480	27,581	212	127	(182)	(77)	469
Electricity and water supply	14,046	13,030	946	13,035	7,393	918	147	60	69	187
Commerce	41,705	39,627	689	41,237	26,920	688	265	(219)	(19)	755
Hotels, hospitality, and food services	11,973	10,477	871	11,945	10,077	854	166	(45)	12	256
Transportation and storage	12,140	11,239	411	12,022	8,173	385	323	(24)	10	113
Information and communications	7,274	6,956	158	7,225	4,190	158	147	(190)	(45)	143
Financial services	50,636	50,283	154	41,952	23,541	154	6	9	(2)	253
Other business services	16,228	14,743	171	16,165	10,624	171	87	(11)	28	189
Public and community services	9,284	8,727	73	9,277	6,729	73	41	(12)	1	70
Total commercial[8]	334,415	321,484	5,977	323,075	187,270	5,904	2,828	(566)	(122)	4,227
Private individuals – housing loans	125,207	121,811	570	125,207	114,612	570	1	(226)	(1)	527
Private individuals – other	52,381	49,033	720	52,374	34,754	720	649	(424)	(25)	625
Total public – activity in Israel	512,003	492,328	7,267	500,656	336,636	7,194	3,478	(1,216)	(148)	5,379
Banks in Israel[9]	6,511	6,511	-	5,226	167	-	-	-	-	-
Israeli government	41,758	41,758	-	790	787	-	-	-	-	-
Total activity in Israel	560,272	540,597	7,267	506,672	337,590	7,194	3,478	(1,216)	(148)	5,379

(1) Balance sheet credit risk and off-balance sheet credit risk,[3] including in respect of derivative instruments. Includes debts,[2] bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 337,590; 39,639; 1,253; 4,789; and 177,000 million, respectively.
(2) Credit to the public, credit to governments, and deposits with banks (excluding deposits with the Bank of Israel), excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item "other assets").
(3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness.
(4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item "other liabilities").
(5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
(6) Balance sheet and off-balance sheet credit risk that is impaired, substandard, or special mention, including in respect of housing loans for which an allowance based on past-due status exists, and housing loans for which an allowance based on past-due status does not exist which are past due by 90 days or more.
(7) Including balance sheet credit risk in the amount of approximately NIS 733 million and off-balance sheet credit risk in the amount of approximately NIS 988 million extended to certain purchasing groups currently in the process of construction. Also includes off-balance sheet credit risk in the amount of approximately NIS 3,755 million, in respect of which insurance was acquired from foreign insurance companies for the portfolio of Sale Law guarantees.
(8) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 74 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.
(9) Excluding cash balances of the Bank and deposits with the Bank of Israel, and before deducting the allowance for credit losses.

Table D-3: Details of exposures by economic sector in Israel (continued)

	December 31, 2022									
	Total credit risk[1]			Debts[2] and off-balance sheet credit risk (excluding derivatives)[3]						
								Credit losses for the year ended December 31, 2022[4]		
	Total credit risk[1]	Of which: credit execution rating[5]	Of which: problematic credit risk[6]	Total	Of which: debts[2]	Problematic[6]	Non-accruing	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses
	NIS millions									
In respect of borrower activity overseas										
Public – commercial										
Agriculture	**164**	**164**	**-**	**164**	**164**	**-**	**-**	**-**	**-**	**1**
Mining and quarrying	**763**	**763**	**-**	**369**	**64**	**-**	**-**	**2**	**-**	**12**
Industry	**3,940**	**3,924**	**16**	**2,609**	**1,662**	**16**	**-**	**(19)**	**(3)**	**17**
Construction and real estate	**13,650**	**12,019**	**838**	**13,546**	**9,781**	**837**	**558**	**96**	**16**	**527**
Electricity and water supply	**1,177**	**1,130**	**-**	**762**	**179**	**-**	**-**	**(5)**	**-**	**4**
Commerce	**3,667**	**3,627**	**41**	**3,332**	**2,705**	**41**	**41**	**23**	**(2)**	**37**
Hotels, food services, and hospitality	**3,747**	**2,840**	**635**	**3,747**	**2,978**	**635**	**6**	**8**	**-**	**107**
Transportation and storage	**1,024**	**932**	**70**	**787**	**678**	**70**	**29**	**7**	**-**	**29**
Information and communications	**2,583**	**2,570**	**13**	**2,214**	**1,821**	**13**	**13**	**1**	**2**	**18**
Total financial services	**10,062**	**10,060**	**1**	**4,480**	**3,782**	**1**	**1**	**(12)**	**-**	**12**
Other business services	**1,535**	**1,314**	**222**	**1,536**	**1,091**	**222**	**-**	**9**	**8**	**16**
Public services	**2,861**	**2,858**	**2**	**2,673**	**2,323**	**2**	**2**	**10**	**-**	**23**
Total commercial	**45,173**	**42,201**	**1,838**	**36,219**	**27,228**	**1,837**	**650**	**120**	**21**	**803**
Private individuals – housing loans	**631**	**614**	**9**	**631**	**578**	**9**	**9**	**(1)**	**-**	**4**
Private individuals – other	**220**	**213**	**1**	**220**	**78**	**1**	**-**	**-**	**1**	**1**
Total public – activity overseas	**46,024**	**43,028**	**1,848**	**37,070**	**27,884**	**1,847**	**659**	**119**	**22**	**808**
Banks overseas[7]	**27,239**	**27,238**	**-**	**17,608**	**16,837**	**-**	**-**	**9**	**-**	**10**
Governments overseas	**25,760**	**25,669**	**-**	**1,541**	**1,410**	**-**	**-**	**21**	**-**	**22**
Total activity overseas	**99,023**	**95,935**	**1,848**	**56,219**	**46,131**	**1,847**	**659**	**149**	**22**	**840**
Total in Israel and overseas	**694,945**	**675,353**	**7,744**	**568,594**	**413,532**	**7,738**	**4,253**	**(34)**	**(95)**	**6,516**

(1) Balance sheet credit risk and off-balance sheet credit risk,[3] including in respect of derivative instruments. Includes debts[2], bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 46,131; 35,581; 582; 285; and 16,444 million, respectively.
(2) Credit to the public, credit to governments, and deposits with banks, excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item "other assets").
(3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, excluding in respect of derivative instruments.
(4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item "other liabilities").
(5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
(6) Balance sheet and off-balance sheet non-accruing, substandard, or special mention credit risk.
(7) Excluding cash balances of the Bank, and before deducting the allowance for credit losses.

Table D-3: Details of exposures by economic sector in Israel (continued)

	December 31, 2021									
	Total credit risk[1]			Debts[2] and off-balance sheet credit risk (excluding derivatives)[3]						
								Credit losses for the year ended December 31, 2021[4]		
	Total credit risk[1]	Of which: credit execution rating[5]	Of which: problematic credit risk[6]	Total	Of which: debts[2]	Problematic[6]	Non-accruing	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses[9]
	NIS millions									
In respect of borrower activity overseas										
Public – commercial										
Agriculture	193	193	-	193	193	-	-	(1)	-	1
Mining and quarrying	801	777	24	354	57	24	-	(3)	-	1
Industry	3,967	3,119	511	2,917	1,879	511	5	(8)	(15)	28
Construction and real estate – construction	11,424	9,082	824	11,290	7,982	824	702	15	(23)	300
Electricity and water supply	795	740	5	436	123	5	5	(1)	1	5
Commerce	2,896	2,685	162	2,851	2,351	162	54	3	(6)	27
Hotels, food services, and hospitality	3,415	2,532	753	3,414	2,650	753	101	-	(2)	77
Transportation and storage	931	811	83	613	487	83	31	(11)	1	23
Information and communications	1,635	1,589	18	1,413	869	18	18	(1)	(1)	11
Total financial services	8,719	8,643	66	2,949	1,991	66	1	(2)	(5)	14
Other business services	1,260	1,211	8	1,260	825	8	2	5	-	14
Public services	1,831	1,745	23	1,566	1,117	23	23	-	-	16
Total commerce[7]	37,867	33,127	2,477	29,256	20,524	2,477	942	(4)	(50)	517
Private individuals – housing loans	553	522	26	553	515	26	-	-	-	6
Private individuals – other	177	174	1	177	54	1	1	(1)	-	1
Total activity overseas	38,597	33,823	2,504	29,986	21,093	2,504	943	(5)	(50)	524
Total banks[8]	27,607	27,603	-	14,229	13,444	-	-	-	-	1
Governments overseas	22,644	22,644	-	1,200	1,187	-	-	1	-	5
Total activity overseas	88,848	84,070	2,504	45,415	35,724	2,504	943	(4)	(50)	530
Total in Israel and overseas	649,120	624,667	9,771	552,087	373,314	9,698	4,421	(1,220)	(198)	5,909

(1) Balance sheet credit risk and off-balance sheet credit risk,[3] including in respect of derivative instruments. Includes debts,[2] bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 35,724; 27,815; 8,196; and 17,116 million, respectively.
(2) Credit to the public, credit to governments, and deposits with banks, excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item "other assets").
(3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, excluding in respect of derivative instruments.
(4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item "other liabilities").
(5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
(6) Balance sheet and off-balance sheet credit risk that is impaired, substandard, or special mention, including in respect of housing loans for which an allowance based on past-due status exists, and housing loans for which an allowance based on past-due status does not exist which are past due by 90 days or more.
(7) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 0 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.
(8) Excluding cash balances of the Bank, and before deducting the allowance for credit losses.
(9) The collective allowance component in respect of qualitative adjustments arising from the pace of growth of the balances of credit for construction and real estate and reliefs in underwriting is included, as of June 30, 2022, as part of the allowance for credit losses in the construction and real-estate sectors, similar to its inclusion prior to the implementation of the directives of the Bank of Israel concerning current expected credit losses (CECL).

Table D-4: Exposures by remaining contractual term to maturity

	December 31, 2022					
	Up to one year	One year to five years	Over 5 years up to 15 years	Over 15 years	Total credit exposures	Average term to maturity
	NIS millions					Years
Balance sheet exposures						
Commercial	**133,571**	**86,922**	**29,450**	**8,409**	**258,352**	**2.73**
Private individuals – housing loans	**9,934**	**40,013**	**73,509**	**56,222**	**179,678**	**10.10**
Private individuals – other	**19,189**	**13,905**	**1,617**	**2,707**	**37,418**	**1.94**
Assets in respect of derivative instruments	**6,016**	**4,019**	**1,114**	**45**	**11,194**	**2.40**
Total public	**168,710**	**144,859**	**105,690**	**67,383**	**486,642**	**5.43**
Banks and governments	**167,673**	**58,088**	**20,824**	**2,096**	**248,681**	**2.01**
Total balance sheet credit exposure	**336,383**	**202,947**	**126,514**	**69,479**	**735,323**	**4.26**
Of which: bonds	**28,547**	**59,165**	**24,309**	**2,617**	**114,638**	**4.19**
Total off-balance sheet credit exposure	**118,531**	**74,402**	**15,855**	**15,855**	**224,643**	**3.16**

	December 31, 2021					
	Up to one year	One year to five years	Over 5 years up to 15 years*	Over 15 years*	Total credit exposures	Average term to maturity*
	NIS millions					Years
Balance sheet exposures						
Total commercial	109,907	75,521	23,167	7,481	216,076	2.75
Private individuals – housing loans	8,854	33,001	58,302	42,173	142,330	9.86
Private individuals – other	21,027	13,976	1,169	1,217	37,389	1.77
Assets in respect of derivative instruments	1,001	3,047	11	-	4,059	2.40
Total public	140,789	125,545	82,649	50,871	399,854	5.21
Total banks and governments	206,489	35,930	21,392	783	264,594	1.65
Total balance sheet credit exposure	347,278	161,475	104,041	51,654	664,448	3.78
Of which: bonds	13,058	37,201	18,315	1,543	70,117	4.67
Total off-balance sheet credit exposure	127,741	81,176	17,387	17,387	243,691	3.19

* Restated.

D.5.b. Exposure to foreign countries

Balance sheet exposure to foreign countries as at December 31, 2022, amounted to NIS 75.5 billion, compared with NIS 61.2 billion at the end of 2021. The increase mainly resulted from an increase in credit insurance for land and the acquisition of mortgage insurance and insurance for Sale Law guarantees from foreign insurers. Off-balance sheet exposure to foreign countries as at December 31, 2022, amounted to NIS 26.4 billion, compared with NIS 21.5 billion at the end of 2021. The Bank operates in accordance with an ordered policy that sets limits and terms for the exposure to foreign countries.

Table D-5: Total principal exposures to foreign countries

	December 31, 2022[1]					
	Balance sheet exposure[4]					
	Cross-border balance sheet exposure			Balance sheet exposure of the banking corporation's branches/subsidiaries in foreign countries to local residents		
	To governments[3]	To banks	To others	Balance sheet exposure before deduction of local liabilities	Deduction in respect of local liabilities	Net balance sheet exposure after deduction of local liabilities
	NIS millions					
Country						
United States	**21,240**	**2,986**	**4,658**	**30,021**	**21,330**	**8,691**
Switzerland	**-**	**668**	**3,226**	**384**	**-**	**384**
England	**-**	**2,517**	**3,645**	**-**	**-**	**-**
Germany	**-**	**173**	**1,267**	**-**	**-**	**-**
France	**-**	**1,127**	**560**	**-**	**-**	**-**
Others	**1,136**	**6,154**	**16,915**	**179**	**2**	**177**
Total exposures to foreign countries	**22,376**	**13,625**	**30,271**	**30,584**	**21,332**	**9,252**
Of which: total exposure to PIGS (Portugal, Italy, Greece, and Spain)	**-**	**159**	**32**	**-**	**-**	**-**
Of which: total exposure to LDCs	**10**	**75**	**452**	**179**	**2**	**177**
Of which: total exposure to countries with liquidity problems	**-**	**1**	**35**	**179**	**2**	**177**

The line "total LDCs" includes the total exposure to countries defined as Least Developed Countries (LDCs) in Proper Conduct of Banking Business Directive 315, "Supplementary Provision for Doubtful Debts."
Balance sheet exposure to a foreign country includes cross-border balance sheet exposure and balance sheet exposure of the branches/subsidiaries of the banking corporation in the foreign country to local residents. Cross-border balance sheet exposure includes balance sheet exposure of the branches/subsidiaries of the banking corporation in Israel to residents of the foreign country, and balance sheet exposure of the overseas branches/subsidiaries of the banking corporation to non-residents of the country in which the branch/subsidiary is located.
Balance sheet exposure of the banking corporation's branches/subsidiaries in a foreign country to local residents includes balance sheet exposure of the branches/subsidiaries of the banking corporation in that foreign country to the residents of the country, less liabilities of those branches/subsidiaries (the deduction is performed up to the level of the exposure).
(1) Based on the final risk, after the effect of guarantees, liquid collateral, and credit derivatives.
(2) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limits on indebtedness of a borrower, according to Proper Conduct of Banking Business Directive 313.
(3) Governments, official institutions, and central banks.
(4) Balance sheet and off-balance sheet credit risk, problematic credit risk, and non-accruing debts are presented before the effect of the allowance for credit losses, and before the effect of collateral deductible for the purposes of the indebtedness of a borrower and of a group of borrowers.
(5) The balance of the off-balance sheet exposure to foreign countries includes total indebtedness of NIS 9,231 million in 2022 in respect of the acquisition of insurance for the portfolio of Sale Law guarantees from international reinsurers (2021: NIS 2,725 million).

December 31, 2022[1]						
Balance sheet exposure[4]			Off-balance sheet exposure[2][4][5]		Cross-border balance sheet exposure	
Total balance sheet exposure	Problematic balance sheet credit risk[4]	Non-accruing debts[4]	Total off-balance sheet exposure	Of which: problematic off-balance sheet credit risk[4]	Maturity up to one year	Maturity over one year
NIS millions						
37,575	**1,358**	**577**	**8,950**	**79**	**2,739**	**26,145**
4,278	**1**	**-**	**1,723**	**-**	**258**	**3,636**
6,162	**-**	**-**	**5,058**	**-**	**935**	**5,227**
1,440	**-**	**-**	**5,547**	**-**	**427**	**1,013**
1,687	**9**	**9**	**1,136**	**-**	**145**	**1,542**
24,382	**275**	**68**	**3,963**	**-**	**5,518**	**18,687**
75,524	**1,643**	**654**	**26,377**	**79**	**10,022**	**56,250**
191	**-**	**-**	**52**	**-**	**17**	**174**
714	**50**	**49**	**68**	**-**	**43**	**494**
213	**40**	**39**	**33**	**-**	**6**	**30**

Table D-5: Total principal exposures to foreign countries (continued)

	December 31, 2021[1]					
	Balance sheet exposure[4]					
	Cross-border balance sheet exposure			Balance sheet exposure of the banking corporation's branches/subsidiaries in foreign countries to local residents		
	To governments[3]	To banks	To others	Balance sheet exposure before deduction of local liabilities	Deduction in respect of local liabilities	Net balance sheet exposure after deduction of local liabilities
	NIS millions					
Country						
United States	20,090	1,921	3,488	26,427	18,031	8,396
Switzerland	-	407	2,524	299	-	299
England	-	4,672	3,593	-	-	-
Germany	-	424	1,198	-	-	-
France	-	1,373	481	-	-	-
Others	882	2,427	8,818	236	15	221
Total exposures to foreign countries	20,972	11,224	20,102	26,962	18,046	8,916
Of which: total exposure to PIGS (Portugal, Italy, Greece, and Spain)	-	157	13	-	-	-
Of which: total exposure to LDCs	1	190	361	237	15	222
Of which: total exposure to countries with liquidity problems	-	2	10	237	15	222

The line "total LDCs" includes the total exposure to countries defined as Least Developed Countries (LDCs) in Proper Conduct of Banking Business Directive 315, "Supplementary Provision for Doubtful Debts."
Balance sheet exposure to a foreign country includes cross-border balance sheet exposure and balance sheet exposure of the branches/subsidiaries of the banking corporation in the foreign country to local residents. Cross-border balance sheet exposure includes balance sheet exposure of the branches/subsidiaries of the banking corporation in Israel to residents of the foreign country, and balance sheet exposure of the overseas branches/subsidiaries of the banking corporation to non-residents of the country in which the branch/subsidiary is located.
Balance sheet exposure of the banking corporation's branches/subsidiaries in a foreign country to local residents includes balance sheet exposure of the branches/subsidiaries of the banking corporation in that foreign country to the residents of the country, less liabilities of those branches/subsidiaries (the deduction is performed up to the level of the exposure).
(1) Based on the final risk, after the effect of guarantees, liquid collateral, and credit derivatives.
(2) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limits on indebtedness of a borrower, according to Proper Conduct of Banking Business Directive 313.
(3) Governments, official institutions, and central banks.
(4) Balance sheet and off-balance sheet credit risk, problematic credit risk, and impaired debts are presented before the effect of the allowance for credit losses, and before the effect of collateral deductible for the purposes of the indebtedness of a borrower and of a group of borrowers.
(5) The balance of the off-balance sheet exposure to foreign countries includes a total of NIS 11,819 million in respect of the acquisition of insurance for the portfolio of Sale Law guarantees from international reinsurers.

December 31, 2021[1]						
Balance sheet exposure[4]			Off-balance sheet exposure[2][4][5]		Cross-border balance sheet exposure	
Total balance sheet exposure	Problematic balance sheet credit risk[4]	Impaired debts[4]	Total off-balance sheet exposure	Of which: problematic off-balance sheet credit risk[4]	Maturity up to one year	Maturity over one year
NIS millions						
33,895	2,066	841	8,596	126	11,425	14,074
3,230	-	-	946	-	903	2,028
8,265	-	-	6,203	-	2,177	6,088
1,622	-	-	1,434	-	803	819
1,854	19	2	1,127	-	396	1,458
12,348	304	83	3,146	-	3,873	8,254
61,214	2,389	926	21,452	126	19,577	32,721
170	1	-	58	-	70	100
774	62	60	61	-	40	512
234	50	49	54	49	2	10

Table D-6: Changes in amount of balance sheet exposure to foreign countries with liquidity problems[1]

	For the year ended December 31, 2022									
	Argentina	Costa Rica	Ghana	Kenya	Moldova	Nigeria	Russia	Turkey	Ukraine	Total
	NIS millions									
Amount of exposure at beginning of period	**2**	**2**	**1**	**2**	**1**	**1**	**15**	**225**	**4**	**253**
Net changes in amount of short-term exposure	**-**	**3**	**-**	**-**	**-**	**2**	**1**	**(46)**	**-**	**(40)**
Changes in other exposures:										
Added exposures	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Accrued interest income	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Amounts collected	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Amount of exposure at end of period	**2**	**5**	**1**	**2**	**1**	**3**	**16**	**179**	**4**	**213**

	For the year ended December 31, 2021			
	Argentina	Costa Rica	Ghana	Turkey
	NIS millions			
Amount of exposure at beginning of period	3	2	1	296
Net changes in amount of short-term exposure	-	-	-	-
Changes in other exposures:				
Added exposures	-	-	-	-
Accrued interest income	-	-	-	-
Amounts collected	(1)	-	-	(71)
Amount of exposure at end of period	2	2	1	225

(1) Based on the final risk, after the effect of guarantees, liquid collateral, and credit derivatives.

Table D-7: Exposure of the Bank Group to foreign financial institutions[1]

	December 31, 2022			December 31, 2021		
	Balance sheet credit risk[2]	Present off-balance sheet credit risk[3]	Total present credit risk	Balance sheet credit risk[2]	Present off-balance sheet credit risk[3]	Total present credit risk
	NIS millions					
External credit rating[4]						
AAA to AA-	**4,906**	**11,504**	**16,410**	1,823	2,792	4,615
A+ to A-	**8,178**	**10,719**	**18,897**	12,204	6,296	18,500
BBB+ to BBB-	**101**	**96**	**197**	500	161	661
BB+ to B-	**5**	**-**	**5**	3	16	19
Lower than B-	**-**	**-**	**-**	-	-	-
Unrated	**339**	**66**	**405**	141	57	198
Total present credit exposures to foreign financial institutions	**13,529**	**22,385**	**35,914**	14,671	9,322	23,993

(1) Foreign financial institutions include: banks, investment banks, broker/dealers, insurance companies, institutional entities, and entities controlled by such entities, but do not include credit exposure to foreign financial institutions backed by government guarantees.
(2) Deposits with banks, credit to the public, investments in bonds, securities borrowed or purchased in agreements to resell, and other balance sheet risk in respect of derivative instruments.
(3) Mainly guarantees and commitments to grant credit.
(4) According to the lowest of the long-term foreign-currency credit ratings assigned by one of the major rating agencies S&P and Moody's.

The exposure of the Bank Group to foreign financial institutions totaled approximately NIS 35.9 billion on December 31, 2022, an increase of approximately NIS 11.9 billion, compared with approximately NIS 24.0 billion at the end of 2021. This increase resulted from a decrease in off-balance sheet exposure in the amount of approximately NIS 13.1 billion, which mainly resulted from the acquisition of credit insurance from foreign insurers. This increase was partly offset by a decrease in balances of balance sheet credit in the amount of approximately NIS 1.9 billion. Approximately 98.3% of the exposure to foreign financial institutions is to financial institutions rated A- or higher.

The Bank Group's exposure to foreign financial institutions is distributed as follows: 34.9% in banks and bank holding companies, 61.2% in insurance companies, and 3.9% in another financial institution.

The exposure of the Bank Group is to foreign financial institutions operating in Western European countries (66.2%), the United States (27.1%), and South and East Asian countries (6.7%).

D.6. Additional information regarding exposures to credit risks

D.6.a. Construction and real estate

Activity in the construction and real-estate sectors grew considerably over the last year, in both residential and non-residential construction. Residential construction starts are now approaching 75,000 units per year. A steep drop in purchases of new homes is emerging, likely affected by the increase in interest rates. In October-November, approximately 2,400 homes were sold per month on average, a steep drop relative to a monthly pace of sales of approximately 5,000 homes on average in the second half of 2021. As noted, interest-rate increases have reduced households' ability to buy homes and lowered purchases by investors. Data of the Central Bureau of Statistics do not indicate falling prices, for now, but do show a more moderate pace of increase; however, these are lagging data. A sharp trend reversal is evident in many countries, with prices now falling.

As a result of the growth in this sector, demand for corporate credit in the construction and real-estate sectors increased; accordingly, the Bank increased its activity in financing for the real-estate sectors and real-estate projects in the course of 2021, with certain adjustments and reliefs. Financing rates rose moderately, while credit spreads were eroded somewhat (for details, see Note 28 to the Financial Statements, "Supervisory Operating Segments"). The growth of the portfolio slowed significantly in 2022. Measures were also taken in the fourth quarter to apply more severe credit underwriting rules in this sector. The Bank is operating within its credit risk management limits, while examining risk-adjusted profitability.

Further to the guidelines of the Banking Supervision Department, criteria have been established for underwriting of credit considered at heightened risk. The bank has monitored performance accordingly beginning in the second quarter of 2021. According to the estimates of the Bank, the adjustments and reliefs applied in underwriting terms have not led to a material change in the risk level, taking into consideration compensatory factors with respect to this credit. The Bank also reflected these factors in determining the adequate collective allowance for the construction and real-estate sector, as detailed below. The Bank is examining the potential implications of the changes in the economic environment, and performs the required adjustments as necessary.

Table D-8: Segmentation of credit risk in the construction and real-estate sectors, by principal area of activity

	Balance as at December 31, 2022			
	Balance sheet credit risk	Off-balance sheet credit		Total credit risk
	Loans[(1)]	Unutilized credit facilities	Guarantees	
	NIS millions			
Corporate Banking Division				
Construction for commerce and services	**2,734**	**793**	**499**	**4,026**
Construction for industry	**361**	**86**	**45**	**492**
Housing construction	**30,677**	**17,591**	**(1)21,537**	**69,805**
Yield-generating properties	**26,365**	**4,607**	**796**	**31,768**
Other	**9,156**	**7,278**	**4,877**	**21,311**
Corporate Banking Division total	**69,293**	**30,355**	**27,754**	**127,402**
Retail Banking Division	**8,836**	**1,852**	**737**	**11,425**
Total activity in Israel	**78,129**	**32,207**	**28,491**	**138,827**

	Balance as at December 31, 2021*			
	Balance sheet credit risk	Off-balance sheet credit		Total credit risk
	Loans[(1)]	Unutilized credit facilities	Guarantees	
	NIS millions			
Corporate Banking Division				
Construction for commerce and services	3,671	1,153	374	5,198
Construction for industry	317	54	38	409
Housing construction	24,805	19,958	(1)16,936	61,699
Yield-generating properties	23,325	6,615	908	30,848
Other	9,161	7,000	5,072	21,233
Corporate Banking Division total	61,279	34,780	23,328	119,387
Retail Banking Division	8,809	2,145	692	11,646
Total activity in Israel	70,088	36,925	24,020	131,033

* Reclassified for presentation in terms of credit risk after the effect of haircuts and deductions in respect of liabilities and Sale Law guarantees.

(1) Includes balance sheet and off-balance sheet credit risk in respect of which insurance was acquired, mainly from foreign insurance companies, for the portfolio of credit for land. For further details, see the Report on Risks as at December 31, 2022.

Overall credit risk in the construction and real-estate sectors in Israel totaled approximately NIS 139 billion as at December 31, 2022. Total risk of credit to the public in the construction and real-estate sectors in Israel increased by approximately 6.0% in 2022. Most of the exposure is at the Corporate Banking Division (mid-sized and large customers), at approximately 92% of total credit risk in the construction and real-estate sectors in Israel.

Exposure to companies operating primarily in the residential construction industry at the Corporate Banking Division constitutes approximately 55% of the exposure of the division to the construction and real-estate sector. Most financing for companies in this industry consists of financing of land for housing and financing of residential construction projects nationwide. Exposure to companies operating in the industries of construction of buildings for commerce and services, construction for industry, and yield-generating properties for rent at the Corporate Banking Division constitutes approximately 28% of the exposure of the division to the construction and real-estate sector.

Table D-9: Analysis of credit quality in the construction and real-estate sectors

	Balance as at		Change
	December 31, 2022	December 31, 2021	
	NIS millions		
Credit risk at credit execution rating			
Non-problematic credit risk	**135,815**	128,392	5.8%
Credit risk not at credit execution rating			
Problematic accruing (as at December 31, 2021: problematic unimpaired)	**434**	401	8.2%
Non-accruing (as at December 31, 2021: impaired)	**682**	684	(0.3%)
Non-problematic	**1,896**	1,556	21.9%
Total credit risk not at credit execution rating	**3,012**	2,641	14.0%
Total	**138,827**	131,033	5.9%

Total credit risk not at credit execution rating increased by 14% in 2022. Total credit risk not at credit execution rating as a percentage of total credit risk increased from 2.02% in 2021 to 2.17% in 2022. Problematic debt as a percentage of total credit risk decreased from 0.83% in 2021 to 0.80% in 2022, and non-accruing debt as a percentage of total credit risk decreased from 0.52% in 2021 to 0.49% in 2022.

Despite the increase in the balance of credit risk not at credit execution rating, particularly nonproblematic debt, the Bank estimates that the quality of the portfolio of credit for construction and real estate is good, as reflected in the indicators noted above. However, the changes in the economic environment indicate an increase in the probability of worsening in these sectors, and consequently of an increase in the level of borrowers' credit risk. As a conservative measure, the Bank increased its collective allowance in respect of this portfolio in 2022.

Table D-10: Credit risk in the real-estate sector at the Corporate Banking Division in Israel, by financing rate (LTV) and absorption capacity*[(1)]

	Balance as at December 31, 2022				
	Land	Real estate in construction processes[(2)]	Completed properties	Other	Total
	NIS millions				
Financing rate[(3)]					
Up to 45%	**2,316**	**-**	**4,937**	**-**	**7,253**
Over 45% up to 65%	**6,666**	**-**	**6,701**	**-**	**13,367**
Over 65% up to 85%	**18,492**	**-**	**6,047**	**-**	**24,539**
Over 85%	**483**	**-**	**289**	**-**	**772**
Absorption capacity[(4)]					
Up to 25%	**-**	**865**	**-**	**-**	**865**
Over 25% up to 50%	**-**	**7,190**	**-**	**-**	**7,190**
Over 50% up to 75%	**-**	**7,791**	**-**	**-**	**7,791**
Over 75%	**-**	**27,237**	**-**	**-**	**27,237**
Projects not yet started	**-**	**9,109**	**-**	**-**	**9,109**
Other[(5)]	**-**	**-**	**-**	**29,279**	**29,279**
Total Corporate Banking Division credit risk	**27,957**	**52,192**	**17,974**	**29,279**	**127,402**

* Data on credit risk in the real-estate sector in the Corporate Banking Division by financing rate (LTV) and absorption capacity as at December 31, 2022, are stated above in a different format than the data as at December 31, 2021, as they are stated in terms of credit risk after the effect of haircuts and deductions in respect of liabilities and Sale Law guarantees, consistently with the presentation of the data in the tables on segmentation of credit risk by economic sector.

(1) Segmentation was performed according to an analysis of the source of repayment of each credit, as presented and approved during the underwriting process.

(2) "Real estate in construction processes" includes credit for projects in various stages of progress, such as purchasing groups; projects for which a financing agreement has been signed, but financing has not commenced due to non-attainment of preliminary conditions; land where development has started; and balances of Sale Law guarantees in the process of cancellation in respect of completed projects.

(3) The financing rate is the ratio of the monetary credit at the report date to the present value of the existing collateral at the report date before the effect of haircuts. Financing rates do not weigh in risk hedging of credit balances backed by insurance acquired from reinsurers.

(4) The absorption capacity of the projects is the maximum possible rate of decline in the value of the asset as completed without the Bank incurring losses from the projects. The absorption capacity is based on the last known report at the report date, and does not weigh in risk hedging of balances secured by insurance acquired from reinsurers.

(5) "Other credit" is any credit that does not meet the definitions of one of the segments listed above. This item includes, for example, financing of infrastructure projects (PPP); financing against collateral other than real estate (such as deposits, shares, floating liens, third-party guarantees, and more); current credit against financial robustness; and more.

Table D-10: Credit risk in the real-estate sector at the Corporate Banking Division in Israel, by financing rate (LTV) and absorption capacity[1] (continued)

	Balance as at December 31, 2021*				
	Land	Real estate in construction processes[2]	Completed properties	Other	Total
	NIS millions				
Financing rate[3]					
Up to 45%	3,373	-	2,993	-	6,366
Over 45% up to 65%	6,638	-	7,176	-	13,814
Over 65% up to 85%	14,335	-	7,008	-	21,343
Over 85%	501	-	633	-	1,134
Absorption capacity[4]					
Up to 25%	-	1,704	-	-	1,704
Over 25% up to 50%	-	18,187	-	-	18,187
Over 50% up to 75%	-	17,005	-	-	17,005
Over 75%	-	45,258	-	-	45,258
Projects not yet started	-	9,159	-	-	9,159
Other[5]	-	-	-	31,641	31,641
Total credit risk before haircuts and deductions – Corporate Banking Division	24,847	91,313	17,810	31,641	165,611
Effect of haircuts and deductions	-	-	-	-	(46,224)
Total Corporate Banking Division credit risk	-	-	-	-	119,387

* Reclassified, mainly to separately state projects not yet started, of total real estate under construction.

(1) Segmentation into segments and financing rates was performed according to an analysis of the source of repayment of each credit, as presented and approved during the underwriting process.

(2) "Real estate in construction processes" includes credit for projects in various stages of progress, such as purchasing groups; projects for which a financing agreement has been signed, but financing has not commenced due to non-attainment of preliminary conditions (absorption capacity is presented according to the minimum absorption capacity based on the financing terms approved); and balances of Sale Law guarantees in the process of cancellation in respect of completed projects.

(3) The financing rate is the ratio of credit risk at the balance sheet date, before the effect of haircuts and deductions, to the present value of the existing collateral at the report date, before the effect of haircuts. Financing rates do not weigh in risk hedging of credit balances backed by insurance acquired from reinsurers.

(4) The absorption capacity of the projects is the maximum possible rate of decline in the value of the asset as completed without the Bank incurring losses from the projects. The absorption capacity is based on the last known report at the report date, and does not weigh in risk hedging of credit balances secured by insurance acquired from reinsurers.

(5) "Other credit" is any credit that does not meet the definitions of one of the segments listed above. This item includes, for example, financing of infrastructure projects (PPP); financing against collateral other than real estate (such as deposits, shares, floating liens, third-party guarantees, and more); current credit against financial robustness; and more.

Credit at financing rates greater than 85% constitutes approximately 1.7% of the total balance of completed properties and land at the Corporate Banking Division in December 2022. Credit with absorption capacity of up to 25% for real estate in construction processes constitutes approximately 2.0% of the total balance of real estate in construction processes at the Corporate Banking Division (excluding projects not yet started) in December 2022.

Note that on May 22, 2022, the Banking Supervision Department issued an update of Directive 203 pursuant to which loans designated for the acquisition of land for the purpose of development or construction at a rate exceeding 80% of the value of the acquired asset (LTV) would be added to the list of debts risk weighted at 150%, excluding loans for the acquisition of agricultural land with no planning horizon or intention to apply for a change in designation, and excluding loans for the acquisition of land for the borrower's own use where the borrower is not categorized as being in the economic sector of construction and real estate, according to the sector classifications in Directive 831 concerning reporting on economic sectors. A questions and answers document was released on January 26, 2023, containing clarifications regarding the implementation of the circular. For additional information, see Note 24N to the Financial Statements.

Management of credit risk in the construction and real-estate sectors

Exposure to the area of construction and real estate constitutes a substantial portion of the credit portfolio. The Bank monitors developments in credit to the construction and real-estate sectors, and applies various measures to manage the risk. Real-estate credit risks are examined individually, based on the policies and objectives established in the risk appetite that has been set, from the level of the individual transaction to an overview of the portfolio of credit for the construction and real-estate sectors at the Bank.

The Bank manages and hedges risk, among other means, through limits on various segments, as established in policy discussions of the Board of Management and the Board of Directors, overseen and led by the Risk Management Division, in addition to the regulatory limit established by the Bank of Israel. On January 7, 2021, the Bank of Israel issued additional adjustments of Proper Conduct of Banking Business Directive 250 (Temporary Order on Coping with the Coronavirus Crisis), which also addresses Proper Conduct of Banking Business Directive 315, "Industry Indebtedness Limit." The update stated that the limit on credit for the construction and real-estate sector, excluding indebtedness for national infrastructures, would rise from 20% to 22% of total indebtedness of the public, and the limit on credit for the construction and real-estate sector would rise from 24% to 26% of total indebtedness of the public. The period of the relief was extended to 24 months from December 31, 2025, provided that the rate does not exceed the rate on December 31, 2025, or the rate of the industry limit as established in Proper Conduct of Banking Business Directive 315, whichever is higher. As part of its management of exposure to this sector and compliance with the limit in this sector, the Bank uses tools such as syndication and the acquisition of insurance from rated foreign insurance companies recognized for the reduction of indebtedness pursuant to Proper Conduct of Banking Business Directive 313. In the second half of 2021 and in the first quarter of 2022, the Bank expanded the insurance for the portfolio of Sale Law guarantees and, for the first time, insured the portfolio of loans secured by a lien on land. Upon completion, this insurance allowed the Bank to reduce its exposure to the construction and real-estate sector. The Bank may take additional measures in the future to continue to manage this limit and the exposure to this sector (for further details, see Note 25B(13) to the Financial Statements).

The underwriting process for new credit in this sector is performed according to a formalized credit policy for the various types of financing in the industry, such as financing of land, financing of residential construction, and financing of construction and yield generation of yield-generating properties. The policy encompasses qualitative and quantitative criteria such as rate of equity capital, maximum LTV, minimum coverage ratio, and sensitivity to price decreases. These criteria are adapted to the type of financed asset, and are used to set the boundaries of risk appetite in this sector. New credit is underwritten with the establishment of risk-adjusted profitability.

Within the monitoring of the portfolio, changes and trends in various risk indicators are examined, including in comparison to data published with regard to the banking system as a whole. The Bank tracks conditions and changes in macroeconomic indicators in general, and in the business environment of the industry in particular. Certain events have been defined as requiring a reexamination of policy, such as a sharp increase in the interest rate or in inflation, an increase in unemployment in the Israeli economy, or a material change in housing prices. The Bank continues to examine the developments in the economy and consider adjustments accordingly. The Bank uses a model to measure the probability of default and the expected loss in the portfolio. In addition, within stress scenario testing, the effect on credit for construction and real estate is also examined.

The allowance for credit losses in respect of the construction and real-estate sectors in Israel totaled approximately NIS 1,469 million as at December 31, 2022, compared with a total of approximately NIS 1,267 million as at December 31, 2021. The total allowance for credit losses as a percentage of credit to the public in the construction and real-estate sector in Israel as at December 31, 2022, is 1.88%, compared with 1.81% as at December 31, 2021. The calculation of the allowance includes an allowance in respect of the rapid increase in balances during 2021, and reflects a possible increase in risk. To reflect the potential future risk, the Bank increased its allowance for credit losses in respect of the construction and real-estate sectors in Israel through qualitative adjustments. Accordingly, the allowance for credit losses and its percentage of credit to the public in the construction and real-estate sector in Israel are higher than in December 2021.

D.6.b. Credit risk in respect of exposures to borrowers and to groups of borrowers

Table D-11: Balances of balance sheet credit risk and off-balance sheet credit risk to borrowers whose indebtedness exceeds NIS 1,200 million, by sector of the economy

	December 31, 2022			
	Number of borrowers	Balance sheet credit risk	Off-balance sheet credit risk	Total
		NIS millions		
Economic sector				
Electricity supply	**-**	**1,310**	**1,360**	**2,670**
Construction and real estate – construction	**2**	**6,568**	**3,419**	**9,987**
Construction and real estate – civil engineering	**-**	**1,187**	**3,826**	**5,013**
Hotels, hospitality, and food services	**1**	**1,014**	**297**	**1,311**
Information and communications	**-**	**1,194**	**150**	**1,344**
Financial services	**1**	**11,662**	**10,557**	**22,219**
Industry	**1**	**1,206**	**3,642**	**4,848**
Water, sewage services, garbage and waste treatment, and purification services	**-**	**-**	**-**	**-**
Total	**5**	**24,141**	**23,251**	**47,392**

	December 31, 2021			
	Number of borrowers	Balance sheet credit risk	Off-balance sheet credit risk	Total
		NIS millions		
Economic sector				
Electricity supply	1	2,157	1,227	3,384
Construction and real estate – construction	5	3,523	4,624	8,147
Construction and real estate – civil engineering	1	782	1,133	1,915
Hotels, hospitality, and food services	1	1,300	103	1,403
Information and communications	1	898	496	1,394
Water, sewage services, garbage and waste treatment, and purification services	1	158	1,306	1,464
Financial services	10	10,187	10,950	21,137
Industry	2	1,094	3,768	4,862
Total	22	20,099	23,607	43,706

Credit risk in respect of exposure to borrower groups

As at December 31, 2022, there is no group of borrowers whose net indebtedness on a consolidated basis, in accordance with Proper Conduct of Banking Business Directive 313, "Limits on the Indebtedness of Borrowers and Groups of Borrowers" (hereinafter: "Directive 313"), exceeds 15% of the capital of the banking corporation (as defined in Directive 313).

The Bank conducts monitoring and control processes in order to examine compliance with the limits set forth in Directive 313 with regard to exposure to the indebtedness of borrower groups. As at the reporting date, the Bank is in compliance with the limits.

In November 2022, the Bank of Israel issued a draft update of Proper Conduct of Banking Business Directive 313, "Supervisory Framework for the Measurement and Control of Large Exposures," the essence of which is a change in the manner of calculation of indebtedness in respect of large exposures. The Bank is examining the implications of the implementation of the directive.

D.6.c. Risks in the housing loan portfolio

Table D-12: Development of the balance in the housing credit portfolio, by linkage base and as a percentage of the balance in the credit portfolio of the Bank

	Unlinked segment				CPI-linked segment				Foreign-currency segment		Total	
	Fixed interest rate		Floating interest rate		Fixed interest rate		Floating interest rate		Floating interest rate		Recorded debt balance in NIS millions	Rate of change during the period
	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %		
Dec. 31, 2022	**32,815**	**25.6%**	**50,886**	**39.7%**	**13,951**	**10.9%**	**30,398**	**23.7%**	**127**	**0.1%**	**128,177**	**11.3%**
Dec. 31, 2021	27,672	24.0%	45,600	39.6%	13,610	11.8%	28,137	24.4%	147	0.1%	115,166	15.8%
Dec. 31, 2020	21,480	21.6%	38,623	38.8%	13,619	13.7%	25,573	25.7%	200	0.2%	99,495	10.8%

Risk quantification and measurement – housing credit portfolio

The Bank routinely monitors developments in the housing credit portfolio, and applies various measures to manage risk. Housing credit risks are examined individually, based on the policies and objectives established in the risk appetite set for housing credit, from the level of the individual transaction to an overview of the housing credit portfolio of the Bank.

The Bank manages and hedges risk, among other means, through limits on various segments, as established in policy discussions of the Board of Management and the Board of Directors, overseen and led by the Risk Management Division. The limits address LTV rates, repayment capability, distribution of credit products in the portfolio, volume of problematic debt, loan durations, geographical distribution, rate past due, etc. These indicators are also monitored in comparison to the data of the banking system as a whole.

The Bank tracks conditions and changes in macroeconomic indicators in general, and in the business environment of the industry in particular. Certain events have been defined as requiring a reexamination of policy, such as a sharp increase in the floating interest rate or in inflation, an increase in unemployment in the Israeli economy, or a material change in housing prices.

Data are reported on a monthly basis in a divisional risk forum headed by the Head of Retail Banking, and on a quarterly basis, as part of the report on developments in the credit portfolio and in credit risk, to the Board of Management and Board of Directors.

The Bank uses a statistical model to measure the probability of default and the expected loss in the mortgage portfolio. In addition, within stress scenario testing, the effect on the mortgage portfolio is also examined. Insurance arrangements are also in place – life insurance and building insurance.

In general, the level of credit risk in the housing credit portfolio is low, as reflected in the indicators noted above. Note that the trend of rising interest rates, and to a lesser extent the increase in the consumer price index, have caused monthly payments to grow for many borrowers. This increase has not yet been reflected in portfolio quality indicators.

Table D-13: Details of characteristics of housing credit granted by the Bank – percentage of total new loans executed

	For the year ended		
	December 31, 2022	December 31, 2021	December 31, 2020
Characteristics			
Financing rate over 60%	**42.2%**	41.0%	41.2%
Ratio of repayment to income greater than 40% (for purchases of homes and in monthly payments)	**0.2%**	0.1%	0.1%
Percentage with floating rates	**59.7%**	59.8%	58.7%
Percentage of all-purpose loans	**3.1%**	4.2%	5.1%
Loans for investment purposes as a percentage of total purchases of homes	**10.4%**	10.8%	8.3%
Principal planned for repayment after age 67 (excluding investments)	**9.1%**	8.1%	8.0%
Average original term to maturity of loans for purchases of homes, in years (excluding bridge loans)	**25.1**	24.6	24.5

The volume of housing loans has grown in recent years, due to rising demand, combined with a low interest-rate environment and low supply, which led to increases in prices. In 2022, balances of housing loans rose by 11.3%, lower than the growth rate in 2021, but higher than in previous years. The more moderate growth rate in balances was influenced by the increases in the interest rate and the increase in housing prices. The growth rate of balances cooled each quarter in 2022, particularly in the second half of the year.

Quality indicators of new loans showed an increase (worsening) in 2022 in financing rates over 60%; in the indicator of payment to income ratios greater than 40%, although the rate remained very low; in loans with principal scheduled for repayment after the age of 67; and in the average term to maturity of loans for purchases of homes. Decreases were recorded in 2022 in the percentage of loans executed at floating interest rates (a slight decrease), the percentage of all-purpose loans, and loans for investment purposes as a percentage of total purchases of homes.

In 2022, in view of the rising interest rate and inflation and in response to its customers' needs, the Bank introduced solutions for coping with the increase in the Prime interest rate, such as spreading of the Prime component over a longer period (with no change in the other terms of the loan), and freezing the increase in the interest rate at the rate determined in January 2023, for one year, for the category of customers who meet the criteria established (which, in the eyes of the Bank, represents the customers significantly affected by the rise in interest rates).

The increases in the interest rate and the rise in inflation, which have led to higher monthly payments, combined with the growing uncertainty regarding economic conditions in the coming period, may lead to an increase in the risk level in this portfolio.

The Bank has examined and will continue to examine the effects of the economic environment on borrowers' condition by analyzing the effects of forecasts and the actual effects on borrowers' condition.

D.6.d. Credit to private individuals (excluding housing)

Table D-14: Balance of credit to private individuals in Israel

	Balance as at		Change	
	December 31, 2022	December 31, 2021		
	NIS millions			
Balance sheet				
Negative balance in current accounts	**2,666**	2,522	144	5.7%
Loans[1]	**24,256**	24,073	183	0.8%
Of which: bullet and balloon loans	**48**	43	5	11.6%
Credit for purchases of motor vehicles[2]	**3,359**	3,376	(17)	(0.5%)
Debtors in respect of credit-card activity	**4,849**	4,838	11	0.2%
Total balance sheet credit risk	**35,130**	34,809	321	0.9%
Off-balance sheet				
Off-balance sheet credit risk	**17,980**	17,743	237	1.3%
Total credit risk	**53,110**	52,552	558	1.1%

(1) Excluding loans for purchases of motor vehicles.
(2) Including loans granted for the purchase of motor vehicles or with a lien on a motor vehicle.

The balance of loans to private individuals in Israel, including credit for the purchase of motor vehicles, increased by approximately 0.6% in 2022 in comparison to December 31, 2021. Total balance sheet credit risk increased by approximately 0.9% in this period, and total off-balance sheet credit risk increased by approximately 1.3%.

Beyond the measures taken with respect to housing credit, the Bank is considering additional measures to provide relief to borrowers in coping with the increase in the interest rate on consumer credit.

For details regarding problematic debts in respect of private individuals in Israel, see Note 29 to the Financial Statements.

For additional information regarding the risk of credit to private individuals, see the section "Review of risks" in the Report of the Board of Directors and Board of Management as at December 31, 2022.

D.6.e. Leveraged financing

The Bank provides leveraged financing to its customers from time to time. Leveraged financing is managed and defined at the Bank in accordance with the directives of the Bank of Israel, and in particular, with Proper Conduct of Banking Business Directive 311 (Credit Risk Management), Proper Conduct of Banking Business Directive 323 (Limits on Financing of Equity Transactions), and Proper Conduct of Banking Business Directive 327 (Management of Leveraged Loans).

Among other matters, leveraged financing includes equity transactions (transactions for the acquisition of an equity interest in another corporation, acquisition of all or a significant part of the assets of another corporation, buybacks of issued shareholders' equity, or capital distribution – payment of a dividend, or another transaction aimed at increasing value for shareholders, as defined in Proper Conduct of Banking Business Directive 323), and financing for borrowers in various segments of specified economic sectors characterized by exceptional levels of certain parameters, relative to the accepted norms in the economic sectors, such as a high financing rate that deviates from the policy for the sector, and financing of mezzanine debt.

The Bank has set an internal limit on leveraged financing as a percentage of the Tier 1 capital of the Bank. Developments in leveraged financing and compliance with the established limit are reported each quarter to the Board of Management and the Board of Directors of the Bank, for monitoring of the risks inherent in this type of financing.

Data regarding credit risks in respect of leveraged financing follow. The disclosure focuses on exposures in respect of leveraged borrowers/leveraged transactions where the credit balance exceeds the amount of 0.5% of Tier 1 capital.

Table D-15: Exposures of the Bank to leveraged financing, by economic sector of the borrower*

	December 31, 2022			
	Number of borrowers	Balance sheet credit balance	Off-balance sheet credit balance	Total
		NIS millions		
Economic sector of the borrower				
Construction and real estate – real-estate activities	**2**	**1,196**	**216**	**1,412**
Hotels, hospitality, and food services	**1**	**240**	**-**	**240**
Mining and quarrying	**3**	**441**	**293**	**734**
Commerce	**1**	**350**	**-**	**350**
Financial services and insurance services	**1**	**657**	**51**	**708**
Industry	**1**	**429**	**-**	**429**
Total	**9**	**3,313**	**560**	**3,873**

	December 31, 2021			
	Number of borrowers	Balance sheet credit balance	Off-balance sheet credit balance	Total
		NIS millions		
Economic sector of the borrower				
Construction and real estate – construction	1	3	326	329
Construction and real estate – real-estate activities	2	889	497	1,386
Hotels, hospitality, and food services	1	240	-	240
Commerce	2	600	-	600
Financial services and insurance services	1	641	-	641
Industry	1	425	-	425
Total	8	2,798	823	3,621

* Net of charge-offs and allowances for credit losses calculated on an individual basis, if any.

D.7. Credit risk mitigation: standardized approach disclosures

The Bank applies the comprehensive standardized approach in order to determine risk weightings to apply to the counterparty. The standardized approach requires the use of independent ratings prepared by international rating agencies.

Pursuant to the Basel 3 directives, under certain conditions, certain collateral, such as guarantees, credit derivatives, and financial assets held as collateral, can be deducted from risk components for the purpose of calculating the capital-adequacy ratio.

The deduction of collateral for the calculation of the capital ratio is performed after using safety margins established in the directive. These margins take into account factors including the term to maturity of the collateral, any lack of congruity between the linkage terms of the collateral and of the credit that it secures, and volatility in the value of the collateral.

The qualifying financial collateral used by the Bank to calculate capital adequacy and risk mitigation includes deposits that constitute collateral by way of liens, bonds of banking corporations and governments under permanent liens, and shares under lien traded on the primary index. In addition, the Bank uses guarantees of banking corporations, which transfer the exposure from the segment of the guaranteed party to exposure to banking corporations.

Table D-16: Credit risk mitigation

	December 31, 2022								
	Unsecured	Secured							
	Total balance sheet balance	Total balance sheet balance	Of which: amount secured	Of which: by collateral		Of which: by financial guarantees		Of which: by credit derivatives	
				Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured
	NIS millions								
1 Debts, excluding bonds	**345,472**	**62,496**	**39,701**	**32,887**	**23,831**	**29,609**	**15,870**	**-**	**-**
2 Bonds	**103,352**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
3 Total	**448,824**	**62,496**	**39,701**	**32,887**	**23,831**	**29,609**	**15,870**	**-**	**-**
4 Of which: non-accruing or past due by 90 days or more	**7,769**	**153**	**4**	**153**	**4**	**-**	**-**	**-**	**-**

	December 31, 2021*								
	Unsecured	Secured							
	Total balance sheet balance	Total balance sheet balance	Of which: amount secured	Of which: by collateral		Of which: by financial guarantees		Of which: by credit derivatives	
				Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured
	NIS millions								
1 Debts, excluding bonds	330,219	37,983	18,251	14,746	9,554	23,237	8,697	-	-
2 Bonds	67,455	-	-	-	-	-	-	-	-
3 Total	397,674	37,983	18,251	14,746	9,554	23,237	8,697	-	-
4 Of which: impaired or past due by 90 days or more	2,689	110	4	110	4	-	-	-	-

* Restated.

D.7.a. Implementation of external credit ratings

According to the external rating based standardized approach implemented at the Bank, credit-risk weightings are determined by methods including the attribution of exposure to the counterparty to a transaction, as stated in the directive, taking into account the external credit ratings established by external credit assessment institutions (ECAI), which are used for standardized measurement of credit risk.

ECAI ratings are used to determine the risk weights of the following counterparties:

- Sovereigns;
- Public sector;
- Corporations;
- Banking corporations

In addition, the Bank uses insurance policies of credit-risk insurers with high international ratings to mitigate credit risk, so that the risk weight is based on the ratings of the insurers, rather than on the ratings of the counterparties.

For the purposes of the ratings, the Bank used data from the rating agency Standard & Poor's Rating Group. Beginning in the third quarter of 2022, ratings of the rating agency AM Best, which specializes in ratings of insurance companies, were also used.

To establish risk weights according to the credit ratings of the rating agencies noted above, the Bank uses standard mapping tables established by the Banking Supervision Department in Proper Conduct of Banking Business Directive 203, as updated from time to time.

During the rating process, customers are identified and the appropriate rating is determined by matching the files of the ECAIs with the data of the counterparties. The data are entered into the calculation system, and the appropriate risk weight is assigned based on the rules established by the Banking Supervision Department. Accordingly, the lower of the credit ratings assigned by either of the two rating agencies noted above is selected.

When there is no rating for the counterparty, the risk weight is calculated according to the defaults defined in the directives of the Bank of Israel.

The risk weight for debts of Israeli banks with an original term to maturity of three months or less, denominated and financed in NIS, is 20%.

The risk weight for banks is determined by the risk weight of the country in which the bank is incorporated, and is one level below the risk weight derived from the sovereign rating.

For investments in issuances that have a specific issuance rating, the risk weight of the debt is based on such rating, except when the issuer is a banking corporation or a public-sector entity. In these cases, the risk weight is based on the issuer rating, rather than on the specific issuance rating.

D.7.b. Standardized approach – credit risk exposure and effects of credit risk mitigation

Table D-17: Credit risk exposure and effects of credit risk mitigation[1]

		December 31, 2022					
		Exposures before CCF and CRM		Exposures after CCF and CRM		RWA and RWA density	
		Balance sheet amount[2]	Off-balance sheet amount[2]	Balance sheet amount[3]	Off-balance sheet amount[3]	RWA	RWA density
		NIS millions/percent					
1	Sovereigns, central banks thereof, and national monetary authority	**209,294**	**543**	**208,734**	**26**	**255**	**0.1%**
2	Public-sector entities (PSE) other than the central government	**4,051**	**2,157**	**5,908**	**940**	**981**	**14.3%**
3	Banks (including multilateral development banks (MDB))	**31,013**	**6,070**	**17,091**	**1,594**	**3,586**	**19.2%**
4	Securities companies	**2,420**	**333**	**2,258**	**125**	**476**	**20.0%**
5	Corporations	**118,157**	**62,595**	**124,528**	**34,364**	**141,603**	**89.1%**
6	Retail exposures to individuals	**49,405**	**21,941**	**48,473**	**3,634**	**39,085**	**75.0%**
7	Loans to small businesses	**9,691**	**3,583**	**8,897**	**764**	**7,245**	**75.0%**
8	Secured by a residential property	**127,324**	**7,228**	**122,812**	**1,308**	**65,537**	**52.8%**
9	Secured by commercial real estate	**73,666**	**104,495**	**65,621**	**24,922**	**93,024**	**102.7%**
10	Past-due loans[4]	**2,960**	**-**	**2,449**	**-**	**2,952**	**120.5%**
11	Other assets	**15,152**	**1,424**	**15,152**	**712**	**12,463**	**78.6%**
12	Total	**643,133**	**210,369**	**621,923**	**68,389**	**367,207**	**53.2%**

		December 31, 2021					
		Exposures before CCF and CRM		Exposures after CCF and CRM		RWA and RWA density	
		Balance sheet amount[2]	Off-balance sheet amount[2]	Balance sheet amount[3]	Off-balance sheet amount[3]	RWA	RWA density
		NIS millions/percent					
1	Sovereigns, central banks thereof, and national monetary authority	239,469	254	239,725	5	416	0.2%
2	Public-sector entities (PSE) other than the central government	4,956	2,335	6,389	1,052	1,201	16.1%
3	Banks (including multilateral development banks (MDB))	12,015	6,381	8,517	1,712	2,087	20.4%
4	Securities companies	1,196	6,002	1,196	1,255	490	20.0%
5	Corporations	101,147	72,922	104,826	29,923	127,015	94.3%
6	Retail exposures to individuals	48,802	21,375	47,727	3,816	38,658	75.0%
7	Loans to small businesses	9,688	3,499	8,817	761	7,183	75.0%
8	Secured by a residential property	114,350	10,603	114,349	1,175	62,235	53.9%
9	Secured by commercial real estate	65,705	98,225	59,646	31,188	90,834	100.0%
10	Past-due loans[4]	2,799	-	2,327	-	2,996	128.7%
11	Other assets	15,315	1,798	15,315	1,332	14,140	84.9%
12	Total	615,442	223,394	608,834	72,219	347,255	51.0%

(1) The balances in the disclosure include balance sheet and off-balance sheet balances reflecting credit risk, excluding amounts of deferred taxes and investments in financial corporations below deduction thresholds (which are subject to a risk weight of 250%), exposures in respect of counterparty credit risk, and securitization exposures.
(2) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, before credit conversion factors and before credit risk mitigation methods.
(3) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, after credit conversion factors and after credit risk mitigation methods.
(4) Balance sheet and off-balance sheet balances were merged due to immateriality.

D.7.c. Standardized approach – exposures by asset type and risk weight

Table D-18: Standardized approach – exposures by asset type and risk weight[1][2]

		December 31, 2022									
		0%	20%	35%	50%	60%	75%	100%	150%	Other[3]	Total amount of credit exposures (after CCF and after CRM)
		NIS millions									
1	Sovereigns, central banks thereof, and national monetary authority	**208,084**	**531**	**-**	**9**	**-**	**-**	**119**	**17**	**-**	**208,760**
2	Public-sector entities (PSE) other than the central government	**1,947**	**4,901**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6,848**
3	Banks (including multilateral development banks (MDB))	**1,376**	**16,946**	**-**	**332**	**-**	**-**	**31**	**-**	**-**	**18,685**
4	Securities companies	**-**	**2,383**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,383**
5	Corporations	**-**	**15,003**	**-**	**10,697**	**-**	**-**	**133,068**	**124**	**-**	**158,892**
6	Retail exposures to individuals	**-**	**-**	**-**	**-**	**-**	**52,091**	**16**	**-**	**-**	**52,107**
7	Loans to small businesses	**-**	**-**	**-**	**-**	**-**	**9,661**	**-**	**-**	**-**	**9,661**
8	Secured by a residential property	**-**	**-**	**34,675**	**37,375**	**34,287**	**14,567**	**3,216**	**-**	**-**	**124,120**
9	Secured by commercial real estate	**-**	**-**	**-**	**-**	**-**	**-**	**85,581**	**4,962**	**-**	**90,543**
10	Past-due loans	**-**	**-**	**-**	**-**	**-**	**-**	**1,443**	**1,006**	**-**	**2,449**
11	Other assets*	**3,961**	**-**	**-**	**-**	**-**	**-**	**10,441**	**1,120**	**342**	**15,864**
11A	* Of which: in respect of shares	**-**	**-**	**-**	**-**	**-**	**-**	**3,333**	**715**	**-**	**4,048**
12	Total	**215,368**	**39,764**	**34,675**	**48,413**	**34,287**	**76,319**	**233,915**	**7,229**	**342**	**690,312**

(1) The balances in the disclosure include balance sheet and off-balance sheet balances reflecting credit risk, excluding amounts of deferred taxes and investments in financial corporations below deduction thresholds (which are subject to a risk weight of 250%), exposures in respect of counterparty credit risk, and securitization exposures.
(2) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, after credit conversion factors and after credit risk mitigation methods.
(3) In accordance with the letter of the Banking Supervision Department, the risk-adjusted assets of the subsidiary of the Bank in Turkey are weighted at a rate of 600% beginning January 1, 2021, and at a rate of 300% beginning May 22, 2022. The balance reflects the addition in respect of the calculation of risk-adjusted assets in accordance with this letter, relative to the calculation of risk-adjusted assets pursuant to Proper Conduct of Banking Business Directive 203.

Table D-18: Standardized approach – exposures by asset type and risk weight[(1)(2)] (continued)

		December 31, 2021									
		0%	20%	35%	50%	60%	75%	100%	150%	Other[(3)]	Total amount of credit exposures (after CCF and after CRM)
		NIS millions									
1	Sovereigns, central banks thereof, and national monetary authority	239,111	273	-	-	-	-	314	32	-	239,730
2	Public-sector entities (PSE) other than the central government	1,508	5,886	-	47	-	-	-	-	-	7,441
3	Banks (including multilateral development banks (MDB))	-	10,150	-	43	-	-	36	-	-	10,229
4	Securities companies	-	2,451	-	-	-	-	-	-	-	2,451
5	Corporations	-	6,415	-	5,428	-	-	122,684	222	-	134,749
6	Retail exposures to individuals	-	-	-	-	-	51,543	-	-	-	51,543
7	Loans to small businesses	-	-	-	-	-	9,578	-	-	-	9,578
8	Secured by a residential property	-	-	32,074	34,370	26,842	18,076	4,162	-	-	115,524
9	Secured by commercial real estate	-	-	-	-	-	-	90,834	-	-	90,834
10	Past-due loans	-	-	-	-	-	-	990	1,337	-	2,327
11	Other assets*	3,069	-	-	-	-	-	11,117	1,123	1,338	16,647
11A	* Of which: in respect of shares	-	-	-	-	-	-	2,993	657	-	3,650
12	Total	243,688	25,175	32,074	39,888	26,842	79,197	230,137	2,714	1,338	681,053

(1) The balances in the disclosure include balance sheet and off-balance sheet balances reflecting credit risk, excluding amounts of deferred taxes and investments in financial corporations below deduction thresholds (which are subject to a risk weight of 250%), exposures in respect of counterparty credit risk, and securitization exposures.

(2) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, after credit conversion factors and after credit risk mitigation methods.

(3) In accordance with the letter of the Banking Supervision Department, the risk-adjusted assets of the subsidiary of the Bank in Turkey are weighted at a rate of 600% beginning January 1, 2021, and at a rate of 300% beginning May 22, 2022. The balance reflects the addition in respect of the calculation of risk-adjusted assets in accordance with this letter, relative to the calculation of risk-adjusted assets pursuant to Proper Conduct of Banking Business Directive 203.

E. Counterparty credit risks

Counterparty risk is defined at the Bank, according to the definition in Proper Conduct of Banking Business Directive 203A, as the credit risk arising from transactions in derivative financial instruments. The risk is that the counterparty to the transaction will default before the final settlement of cash flows in the transaction. The market value of the transaction may be positive or negative for any of the parties to the transaction; the market value is not certain, and may change over time and according to movements in the underlying market-risk factors.

As of July 1, 2022, data referring to counterparty credit risk are calculated according to the SA-CCR approach. For further details, see "Directives pertaining to capital allocation in respect of derivative financial instruments" in the section, "Capital and leverage."

E.1. Management of counterparty risk

The goal of the management of this risk is to make it possible to take counterparty risks in an informed manner, through the establishment of a policy, a risk appetite and risk limits, and a risk-assessment methodology.

For the activity of Bank counterparties involving derivative financial instruments, the Bank has developed computerized models for assessing and controlling counterparty risk at the transaction level and the counterparty level. These models allow the Bank to regularly monitor counterparties' financial situation. In this activity, credit exposure at a particular date is defined as the total of the market value of the position plus potential risk of future losses arising from volatility of the underlying assets in the position of the counterparty, taking into account netting and correlation between the transactions; this represents the Bank's potential loss in the event of default by the counterparty.

The potential risk of future loss arising from transactions in derivative financial instruments in respect of the counterparty is measured by applying conservative haircuts to the nominal value of the transactions, or using the scenarios approach, in which the maximum potential exposure of the customer is calculated in a range of different market situations, or using an internal model developed at the Bank. The measurement method is matched to the counterparty, according to the nature of activity in the counterparty's derivatives portfolio and the agreements which the counterparty has signed with the Bank.

The purpose of these models is to express the exposure to counterparty risk in terms of credit exposure. Credit exposure is managed by the business units, according to a hierarchy of credit authority, and according to the assignment of the customer to the Corporate Banking Division, the Retail Banking Division, or the Financial Markets and International Banking Division. Within those business units, control units exist to monitor exposures against limits and calculate collateral requirements.

Rules and working procedures have been established in order to determine the required level of collateral for such transactions, as well as rules regarding the actions necessary in order to close exposures. The collateral policy is matched to the nature of activity of the borrower in the area of derivatives, subject to Proper Conduct of Banking Business Directive 330. Counterparty exposure limits are set by the appropriate credit authorities at the Bank.

The Market and Liquidity Risk Management Department in the Risk Management Division serves as the second line of defense, and is responsible for establishing methodology for the assessment of exposure to counterparty risk, instilling this methodology at the Bank, and calculating customers' credit exposure in respect of their activity in the dealing room, both for the purpose of collateral requirements and for the purpose of the allocation of economic capital.

The Bank's policy for activity in derivatives with financial institutions obligated to comply with capital-adequacy requirements is to operate within Credit Support Annex (CSA) agreements, in order to limit exposure. These agreements do not contain conditions requiring an increase in collateral in the event of a downgrade of a rating. Operational aspects arising from this activity are examined and controlled routinely by a specialized unit.

In order to calculate credit risk exposure in respect of derivative financial instruments in the financial statements, the Bank implements the SA-CCR approach, as established in Proper Conduct of Banking Business Directive 203A. To manage and mitigate the risk, the Bank uses techniques that allow netting of derivatives transactions, in accordance with the directive, under the following conditions, among others:

- Existence of a netting contract or agreement with the counterparty creating a single legal obligation covering all of the included transactions, such that the banking corporation has the right to receive, or the obligation to pay, only the net amount of the positive and negative values, marked to market, of the single transactions included in the netting set, in the event that the counterparty fails to meet its obligations due to default, bankruptcy, liquidation, or similar circumstances.
- Existence of written, reasoned legal opinions according to which, if the matter were brought to a legal test, the courts and the relevant administrative agencies would find that the banking corporation's exposure is a net amount, based on:
    - The law in the jurisdiction in which the counterparty is registered, and in the case of involvement of a foreign office of the counterparty, also the law in the jurisdiction in which the office is located;
    - The law applicable to the individual transactions;
    - The law applicable to any contract or agreement necessary in order to execute the actual offset.
- Existence of internal regulations aimed at ensuring that the legal characteristics of netting arrangements are examined in light of the possibility of changes in the relevant law. Among other matters, the regulations shall ensure the performance of recurring legal reviews.
- Existence of internal regulations aimed at ensuring that before the transaction is included in the netting set, the transaction is covered by legal opinions that fulfill the criteria established above.

Exposure to wrong-way risk is examined within the application of stress tests. This risk is reflected when scenario data consistently affect both the size of the exposure and default events.

Scenarios in which a situation may emerge where the Bank is obligated to increase the collateral deposited with counterparties are taken into consideration within the internal liquidity model, in order to ensure sufficient preparedness in the event of materialization of the scenario.

In addition to counterparty credit risk in respect of the risk of default, the Bank is required to allocate capital to cover the risk of credit valuation adjustment (CVA) losses, in respect of expected counterparty risk in over-the-counter (OTC) derivatives.

E.2. Counterparty risk exposures

Table E-1: Analysis of exposure to counterparty credit risk based on the supervisory approach

		December 31, 2022					December 31, 2021			
		Replacement cost	Potential future exposure	Alpha used to calculate regulatory EAD	EAD after CRM	RWA	Replacement cost	Potential future exposure	EAD after CRM	RWA
		NIS millions								
1	SA-CCR approach (December 31, 2021: current exposure method)	**2,847**	**12,226**	**1.4**	**21,102**	6,819	6,530	9,810	10,725	4,150
3	Comprehensive approach to credit risk mitigation (for securities financing transactions (SFT))	**-**	**-**	**-**	**1,885**	377	-	-	570	114
6	Total	**2,847**	**12,226**	**1.4**	**22,987**	7,196	6,530	9,810	11,295	4,264

Table E-2: Capital allocation in respect of credit value adjustment

		December 31, 2022		December 31, 2021	
		EAD after CRM	RWA	EAD after CRM	RWA
		NIS millions			
3	Total portfolios in respect of which CVA is calculated according to the standardized approach	**21,051**	**3,786**	10,470	3,039

Table E-3: Standardized approach – exposures to counterparty credit risk based on the supervisory portfolio and risk weights

	December 31, 2022				
	0%	20%	50%	100%	Total credit exposure
	NIS millions				
Sovereigns	**53**	**-**	**-**	**-**	**53**
Public-sector entities (PSEs) other than the central government	**-**	**582**	**-**	**-**	**582**
Banks (including multilateral development banks (MDB))	**-**	**6,280**	**17**	**-**	**6,297**
Securities companies	**-**	**12,800**	**-**	**-**	**12,800**
Corporations	**-**	**-**	**-**	**2,814**	**2,814**
Supervisory retail portfolios	**-**	**-**	**-**	**31**	**31**
Loans to small businesses	**-**	**-**	**-**	**47**	**47**
Secured by commercial real estate	**-**	**-**	**-**	**363**	**363**
Other assets	**-**	**-**	**-**	**-**	**-**
Total	**53**	**19,662**	**17**	**3,255**	**22,987**

	December 31, 2021				
	0%	20%	50%	100%	Total credit exposure
	NIS millions				
Sovereigns	130	-	-	-	130
Public-sector entities (PSEs) other than the central government	-	468	-	-	468
Banks (including multilateral development banks (MDB))	-	4,003	4	-	4,007
Securities companies	-	4,154	-	-	4,154
Corporations	-	-	-	1,655	1,655
Supervisory retail portfolios	-	-	-	501	501
Loans to small businesses	-	-	-	14	14
Secured by commercial real estate	-	-	-	366	366
Other assets	-	-	-	-	-
Total	130	8,625	4	2,536	11,295

Table E-4: Composition of collateral in respect of exposure to counterparty credit risk

	December 31, 2022					
	Collateral used in derivatives transactions				Collateral used in securities financing transactions (SFTs)	
	Fair value of collateral received		Fair value of collateral deposited		Fair value of collateral received	Fair value of collateral deposited
	Disconnected	Not disconnected	Disconnected	Not disconnected		
	NIS millions					
Cash – local currency	**-**	**1,123**	**-**	**1,762**	**-**	**-**
Cash – other currencies	**-**	**5,769**	**-**	**1,805**	**13,296**	**870**
Local sovereign debt	**-**	**6**	**19**	**-**	**-**	**10,917**
Other sovereign debt	**-**	**1,605**	**25**	**-**	**567**	**3,236**
Debt of government agency	**-**	**-**	**-**	**-**	**-**	**-**
Corporate bonds	**-**	**403**	**2,435**	**-**	**-**	**725**
Shares	**-**	**-**	**-**	**-**	**-**	**-**
Other collateral	**-**	**-**	**-**	**-**	**-**	**-**
Total	**-**	**8,906**	**2,479**	**3,567**	**13,863**	**15,748**

	December 31, 2021					
	Collateral used in derivatives transactions				Collateral used in securities financing transactions (SFTs)	
	Fair value of collateral received		Fair value of collateral deposited		Fair value of collateral received	Fair value of collateral deposited
	Disconnected	Not disconnected	Disconnected	Not disconnected		
	NIS millions					
Cash – local currency	-	877	-	702	-	-
Cash – other currencies	-	3,913	-	3,261	3,267	-
Local sovereign debt	-	40	247	-	-	2,676
Other sovereign debt	-	653	151	-	-	53
Debt of government agency	-	-	-	-	-	-
Corporate bonds	-	-	473	-	-	1,108
Shares	-	131	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	-	5,614	871	3,963	3,267	3,837

The Bank has no exposures to credit derivatives as at December 31, 2022, and as at December 31, 2021.

Table E-5: Exposures to central counterparties

		December 31, 2022		December 31, 2021	
		EAD after CRM	RWA	EAD after CRM	RWA
		NIS millions			
1	Exposures to a qualified central counterparty (total)	**1,583**	**35**	2,161	282
2	Exposures to transactions with a qualified central counterparty (excluding primary collateral and transfers to a risk fund), of which:	**-**	**-**	-	-
3	A. OTC derivatives	**432**	**9**	-	-
4	B. Transactions in marketable derivatives on the stock exchange	**649**	**13**	1,200	24
5	C. Securities financing transactions	**-**	**-**	-	-
6	D. Netting sets in which netting of products has been approved	**-**	**-**	-	-
7	Disconnected primary collateral	**-**	**-**	-	-
8	Non-disconnected primary collateral	**499**	**10**	717	14
9	Financed transfers to a risk fund	**3**	**3**	244	244
10	Non-financed transfers to a risk fund	**-**	**-**	-	-
11	Exposures to an unqualified central counterparty (total)	**-**	**-**	-	-
12	Exposures to transactions with an unqualified central counterparty (excluding primary collateral and transfers to a risk fund), of which:	**-**	**-**	-	-
13	A. OTC derivatives	**-**	**-**	-	-
14	B. Transactions in marketable derivatives on the stock exchange	**-**	**-**	-	-
15	C. Securities financing transactions	**-**	**-**	-	-
16	D. Netting sets in which netting of products has been approved	**-**	**-**	-	-
17	Disconnected primary collateral	**-**	**-**	-	-
18	Non-disconnected primary collateral	**-**	**-**	-	-
19	Financed transfers to a risk fund	**-**	**-**	-	-
20	Non-financed transfers to a risk fund	**-**	**-**	-	-

With regard to locked-in capital in connection with SA-CCR, which will replace the existing approaches to Proper Conduct of Banking Business Directive 203, see the section "Directives pertaining to capital allocation in respect of derivative financial instruments" in the section "Capital and leverage," above.

F. Market risk

Market risk is the risk of loss or decline in value as a result of change in the economic value of a financial instrument, or of a particular portfolio, due to changes in prices, rates, spreads, and other market parameters. This includes:

- **Interest-rate risk –** The risk of loss or decline in value as a result of changes in yield curves in the various currencies.
- **Currency risk –** The risk of loss as a result of changes in exchange rates;
- **Inflation risk –** The risk of loss as a result of changes in the curve of CPI expectations and in actual inflation;
- **Share price risk –** The risk of loss as a result of changes in stock prices or in stock indices;
- **Credit spread risk –** The risk of loss as a result of change in the spread between the yield to maturity of corporate bonds traded in the markets and the relevant risk-free yield;
- **Volatility risk –** The risk of loss as a result of changes in the volatility rates quoted in the market;
- **Spread risk –** The risk of loss as a result of changes in the spreads between different interest-rate curves or different interest bases.

The main market risk factors to which the Bank is exposed are NIS interest rates in the linked and unlinked segments, inflation, the NIS/USD exchange rate, and spreads between different interest-rate curves.

F.1. Market risk

F.1.a. Management of market risk

Market risks are managed based on a global view of the Bank's activity in Israel and at its branches abroad, taking into account the activity of subsidiaries with significant exposures for the Group. Market risks are managed separately by each company in the Bank Group, according to policy established by each company's board of directors and in accordance with Group policy. The Bank has set risk limits for the Group that also apply to subsidiaries in which the risk level has been defined as significant for the Group. Market and liquidity risks are assessed and controlled based on a uniform methodology at the Group level, under the direction of the Risk Management Division, taking into account the size of capital and the unique characteristics of the activity of each company. Exposures to market risks of the Bank and the subsidiaries are examined by the Market and Liquidity Risk Management Department in the Risk Management Division, and reported to the Board of Management and the Board of Directors of the Bank at an appropriate frequency based on the risk level.

The Financial Markets and International Banking Division is responsible for the management of exposures to market risks generated as a result of the activity of all of the business units of the Bank. Market risks in the banking book are managed by the Asset and Liability Management Area, and market risks in the trading book are managed by the Dealing Rooms and Brokerage Area. Market risk assessment and the complementary controls are performed in the Risk Management Division, by the Market and Liquidity Risk Management Department, independently and in addition to the monitoring and analysis performed as part of the activity of the Financial Markets and International Banking Division. With regard to investment risk in the nostro portfolio, see the section "Share and credit spread risk," below.

Risk limits reflect the Bank's risk appetite for market risks – the level of risk which the Board of Directors and the Board of Management are willing to bear in the course of business operations in order to achieve returns or value. The limits are established by the Board of Directors and fixed in procedures, including, among other things, limits on the sensitivity of the Bank's economic value to changes in the principal risk factors and specific limits for each of the various activities. The Bank's market risk appetite is established in terms of economic capital allocation and/or VaR and/or sensitivities and/or scenarios.
Market risk exposures are identified methodically, by collecting information from management systems for trading products and non-trading products. This information is analyzed in order to manage and assess the risk, using advanced automated systems suited to each need, based on commonly accepted pricing models. The models are subject to an orderly validation procedure.

F.1.b. Market risk management policy

Market risk management policy in the Bank Group is reflected in the Group risk-management policy and in quantitative limits; the main limits are described later in this section. Activity in the markets is intended both for hedging of exposures that arise from the Bank's activity and service to its customers, and for managing positions within limits. In principle, market risk management at the Group is aimed at increasing expected profits while maintaining approved, controlled risk levels.
A policy document for treasury risk management in the Group is submitted to the Board of Directors for approval each year, within which, among other matters, risk procedures are approved, including limits and authorizations for the various activities; these include an overall framework for the risk estimate in the banking book at the Bank, limits on the overall sensitivity of the Bank to risk factors, and risk limits for the various areas of trading activity, activity in the banking book, and investment activity. The document reflects the work plan of the Financial Markets and International Banking Division on this subject. The policy documents address events that require reporting, including a procedure for escalation to the Chief Executive Officer and to the Chairman of the Board of Directors and/or the chairperson of the Risk Management Committee, as relevant, including exceptional developments in the markets or other material events.

Table F-1: Main limits on exposures to market risks as at December 31, 2022

	Limit	NIS millions	% of active financial capital
Overall Bank activity			
	Overall risk estimate (VaR)	**1,500**	
	Sensitivity of economic value to parallel changes of 1% in interest-rate curves:		
	Unlinked NIS	***1,030**	
	CPI-linked NIS	***1,560**	
	Foreign currency	**660**	
	Sensitivity to 10% change in NIS/foreign currency exchange rate	**550**	
	Linkage-base exposures by segment:		
	CPI-linked NIS		**+/-110%**
	Foreign currency, including foreign-currency linked		**+/-25%**
Of which: trading book			
	Overall risk estimate (VaR)	**100**	
	Sensitivity of economic value to parallel changes of 1% in interest-rate curves:		
	Unlinked NIS	**180**	
	CPI-linked NIS	**160**	
	Foreign currency	**110**	
	Sensitivity to 10% change in NIS/USD exchange rate	**250**	
	CPI exposure – net position limit	**4,000**	
	Linkage base exposure: foreign currency, including linked to foreign currency	**1,500**	
Income sensitivity in the banking book in Israel			
	Sensitivity of annual income to parallel changes of 1% in interest-rate curves:		
	Unlinked NIS	***1,900**	
	CPI-linked NIS	**300**	
	Foreign currency	**500**	

* The limits were updated in January 2023, with no change in risk appetite.

F.1.c. Means for supervision and policy realization

Activity that generates market risks is under the responsibility of the Board of Management Asset and Liability Management Committee. The policy, including the established limits, is submitted for discussion and approval to the committees of the Board of Management, the committees of the Board of Directors, or the plenum of the Board of Directors, as relevant. Ongoing activity is conducted by subcommittees, with the participation of senior officers of the Bank; one subcommittee is headed by the Head of Financial Markets and International Banking and another is headed by the Head of the Asset and Liability Management Area. A local committee also operates in New York. The committees operate on the basis of resolutions passed by the Board of Directors and by its committees regarding exposure to market risks, subject to the directives issued by the Banking Supervision Department or by the local regulator, as relevant.

The Board of Directors and the Risk Management and Control Committee receive reports on activity, exposures, results of operations, and execution of approved policy, at least once each quarter. These reports include: a review of topics discussed and reported in committees, including main resolutions; main exposures and risk levels utilized out of approved limits; results of operations; summary of events requiring a report, if any have occurred (losses, exceptions from procedures, exceptional events); applications for and approvals of expansion of activities; overview of market risk in the activity of the Bank and at subsidiaries with exposures significant for the Group; and additional reports, as relevant.

Risk assessment and control

First line of defense – the Financial Markets and International Banking Division, branches abroad, and subsidiaries: In addition to risk assessment, examination of results, and routine controls over compliance with limits, operational controls are applied by various units in the Financial Markets and International Banking Division and at the branches abroad and subsidiaries. The additional goals of these controls are to examine the correctness, completeness, and congruence of different databases in different reporting systems, and to identify operational errors.

Second line of defense – Risk Management Division: Identification and assessment of risks, control over limits on the extent of risks, and reporting on findings are performed or controlled by the Market and Liquidity Risk Management Department in the Risk Management Division, independently of the routine analyses and reports performed as part of the activity of the first line of defense. The department also performs complementary control over market risks in the Group. The department is responsible for the formulation, maintenance, and routine development of the Group policy and of the methodology for the assessment of market risks in the Bank Group.

F.1.d. Market risk assessment methodology

The methodology used by the Bank to assess market risks has been approved by the Board of Directors and by the Board of Management. This methodology includes VaR calculations and the application of scenarios and stress tests to all trading portfolios and to the banking book. The market risk assessment methodology is congruent with the strategic objectives of the Bank and with the requirements of the Basel Committee, and complies with international standards.

VaR assessment methodology

A risk estimate in terms of VaR in trading activity is calculated at least once daily, for a horizon of ten business days, at a significance level of 99%. The higher of risk estimate of two commonly accepted risk-assessment methods is considered. The estimate provides a relatively prompt alert of the level of market risk during periods of rising volatility. Full revaluation of the trading book is performed at least once daily, under various scenarios, in order to generate an estimate.

In addition, a backtest procedure is performed routinely in order to examine the validity of the risk-assessment model in the trading book. The number of deviations is examined in view of criteria established in the recommendations of the Basel Committee; up to four deviations out of approximately 250 observations annually is considered the "green zone" (at a significance level of 99%). The results of this test are reported annually to the Board of Management and to the Board of Directors. The internal model is used for internal risk assessment at the Bank. The Bank of Israel has not adopted the internal model approach for regulatory capital allocation in respect of market risks.

Risk assessment of activity in the banking book in terms of VaR is performed on a monthly basis, using the historical method, with a one-month horizon.

Limitations of the methodology for assessing risk in trading activity at the Bank

- The Monte Carlo simulation assumes a normal distribution of risk factors. This assumption does not always apply in reality.
- The historical simulation assumes that the historical behavior of the risk factors will recur in the future, which may not be the case.
- It is not possible to forecast a sudden change in a risk factor using either of the methods.
- With the use of a 99% significance level, losses that could occur beyond that level are ignored.
- The use of a horizon of ten business days implies an assumption that it is possible to hedge or sell positions within ten business days. In unique products, in certain market situations, or during crisis periods, liquidity problems in the market may make it impossible to close or fully hedge positions within this timeframe.
- The risk estimate is calculated on positions only a few times in the course of the business day.

To mitigate the effect of these limitations, in addition, stress scenarios are applied in order to examine the potential loss in extreme cases, for all areas of trading activity, as detailed below.

Limitations of the methodology for assessing risk in the banking book

- The credit risk inherent in assets does not constitute a parameter in the calculations made for the purposes of market risk assessment, which focus on quantifying the market risks in the banking book.
- The information used for the risk estimates is assembled from various automated systems.
- Behavioral models are used to reflect the optionality of various products.
- The historical simulation assumes that the historical behavior of the risk factors will recur in the future, which may not be the case.
- With the use of a 99% significance level, losses that could occur beyond that level are ignored.

To mitigate the effect of these limitations, in addition, stress scenarios are applied in order to examine the potential loss in extreme cases, as detailed below, and the effect of a collapse of the behavioral assumptions is tested.

Methodology for the application of scenarios and stress tests

The market risk assessment methodology of the Bank is subject to the Group methodology, and includes the calculation of risk estimates in terms of VaR, as well as the application of scenarios and stress tests to trading portfolios and to the banking book.

- Sensitivity analysis – The sensitivity of the portfolio/activity to the various risk factors is tested by applying scenarios to one risk factor while the other risk factors are held constant. This allows an examination of the effect of the major risk factors on the portfolio. In option portfolios, the combined effect of more than one risk factor is also examined.
- The worst historical scenario based on the history of the last five years, with a horizon of ten business days, is calculated for the trading book. The worst historical scenario based on a ten-year history, with a horizon of one month, is calculated for the banking book and the Bank as a whole.
- Macroeconomic scenarios – Subjective scenarios developed in collaboration with the Economics Department of the Bank, and approved by the Committee on Stress Scenarios. The methodology for the application of stress tests at the Bank is described in the section "Stress scenarios," above.
- Fixed interest-rate scenarios – A set of scenarios in which the principal interest rates to which the Bank is exposed are stressed through parallel and non-parallel changes.
- Extreme scenarios based on a methodology similar to that used to create VaR scenarios, based on the volatility of risk factors during a period of stress in the markets (stressed VaR).
- Additional scenarios as necessary.

The principles guiding the establishment and application of the scenarios have been approved by the Board of Management Committee and by the Board of Directors.

F.2. Market risk in the trading book

Market risks in the trading book arise from the Bank's activity as a market maker, trader, and manager of positions on its own behalf. The Bank's risk level is measured and controlled according to procedures that include, among other things, limits on the risk estimate in terms of VaR and on the sensitivity of economic value to changes in the primary risk factors. A risk estimate using the VaR (value at risk) method estimates the maximum potential loss to a corporation resulting from the materialization of market risks within a given period of time and at a level of statistical significance predefined by the Bank and approved by the Board of Directors.

In general, this activity is based on dynamic management of positions by means of tradable, liquid financial instruments. Changes in the extent of exposures may be rapid, as a function of changes in the markets and of customers' activity. The extent of exposures can usually be changed quickly and the exposures can be adjusted to the desired position.

The Bank's risk level is measured and controlled according to procedures that include, among other things, limits on the risk estimate in terms of VaR and on the sensitivity of economic value to changes in the primary risk factors. A risk estimate using the VaR (value at risk) method assesses the maximum potential loss to a corporation resulting from the materialization of market risks within a given period of time and at a level of statistical significance predefined by the Bank and approved by the Board of Directors (see the risk estimate methodology above). The VaR estimate for trading activity is performed using a horizon of ten business days, indicating an assumption that it is possible to hedge and sell the positions within ten business days.

The main activity limits are described in the section, "Management of market risks," above. Risk assessments as well as limit control of trading positions are performed at least once daily, both by control units within the Financial Markets and International Banking Division and by units in the second line of defense.

Table F-2: Risk estimates of trading activity (VaR)

	December 31, 2022	**Average in 2022**	December 31, 2021	Average in 2021
	NIS millions			
Total trading in dealing rooms	**27**	**41**	20	25

A backtesting procedure is performed routinely at the Bank in order to examine the validity of the risk-assessment model in the trading book. During the first eight months of the year, due to the volatility in the markets, particularly the exceptional volatility in the spread between the shekel interest rate and the dollar interest rate derived from the USD-NIS market, several deviations in the VaR model of the Bank were observed; based on the number of deviations, according to the Basel Committee criteria, the model is in the yellow zone. From August 2022 to the end of 2022, no deviations were recorded in the model. The Bank tracks the performance of the model and updates it accordingly.

Table F-3: Sensitivity of the Bank to changes in the exchange rates of foreign currencies with a significant volume of activity and to changes in the consumer price index

	December 31, 2022		December 31, 2021	
	NIS millions			
	10% increase	10% decrease	10% increase	10% decrease
USD	**(82)**	**171**	74	225
EUR	**(31)**	**43**	*27	*40
	3% increase	3% decrease	3% increase	3% decrease
CPI	**555**	**(591)**	529	(548)

* Restated.

The table above presents an analysis of the sensitivity of the economic value of the Bank to changes in exchange rates, based on revaluation of all balance sheet and off-balance sheet instruments in the risk-management system, using prevalent models for revaluation of each instrument and using representative rates as the baseline exchange rate. For the purposes of the calculation, the portfolio is revalued at an exchange rate reflecting an increase/decrease at the presented rate, with no additional assumptions. Sensitivity to the consumer price index is calculated according to the exposure of the Bank to the index, as detailed in Note 30 to the Financial Statements, plus the effect of the CPI floor on the expected accounting profit.

Table F-4: Market risk based on the standardized approach

The Bank is required to allocate capital in respect of market risk assets, on the basis of a standardized model defined by the Bank of Israel. Regulatory capital adequacy is calculated for interest-rate and share risks, as defined above, in the trading book only, and for currency risks in the banking book and in the trading book.

		December 31, 2022	December 31, 2021
		Risk-adjusted assets in NIS millions	
	Direct products		
1	Interest-rate risk (general and specific)	**3,537**	3,004
2	Share position risk (general and specific)	**-**	-
3	Exchange-rate risk	**163**	425
4	Commodity risk	**-**	-
	Options		
5	Simplified approach	**-**	-
6	Delta-plus approach	**307**	668
7	Scenario approach	**-**	-
8	Securitization	**-**	-
9	Total	**4,007**	4,097

In the area of the activity of Bank customers involving derivative financial instruments, the Bank has developed computerized models for assessing and controlling counterparty credit risk, at the transaction level as well as at the customer level. Counterparty exposure limits are set by the appropriate credit authorities at the Bank. In addition, rules and working procedures have been established in order to determine the required level of collateral for such transactions, as well as rules regarding actions in order to close exposures to customers if necessary. The Bank's policy for activity in derivatives with financial institutions obligated to comply with capital-adequacy requirements is to operate within Credit Support Annex (CSA) agreements, in order to limit exposure. For additional information regarding counterparty credit exposures and the management thereof, see the section "Counterparty credit risk," above.

F.3. Interest-rate risk in the banking book

Interest-rate risk in the banking book refers to the potential effect of changes in the various interest-rate curves on the economic value of the Bank (i.e. change in the present value of assets and liabilities) and/or on interest income (accounting income sensitivity). This risk emerges during routine and proactive banking activity, as a result of the provision of routine services to the general public and to the business and financial sectors, and from other banking activities, including interest-rate exposure arising from the management of the Bank's investment portfolio. The risk arises from differences in the structure of assets and liabilities – durations, interest-rate bases, interest-rate renewal dates, and more. Limits apply at the Bank both to the sensitivity of economic value and to the sensitivity of income and capital to scenarios of change in the shekel and CPI-linked yield curves and in yield curves in other currencies (including financial subsidiaries under the Bank's management and subsidiaries with exposure significant for the Group, if any).

In calculating the exposure of the Bank to changes in interest rates in terms of economic value and fair value, the Bank calculates the effect of the change in the interest rate on all financial assets and liabilities, using the following models:

- Current-account model – Based on a statistical model and estimates, the Bank treats part of the positive current-account balances as stable and distributes them as liabilities over a longer period than the contractual maturity period.
- Mortgage prepayment model – The model includes assumptions regarding prepayment in respect of housing loans, according to the estimates of the Bank, supported by a statistical model based on historical analysis and additional assumptions.

These models are examined periodically and updated to reflect changes in the market and management estimates.

Income sensitivity differs from value sensitivity in that it does not include changes in the discounted value of long-term assets and liabilities that are not measured in the profit and loss statement on a fair-value basis, but does include changes in income arising from changes in the interest rate, which are not part of value sensitivity, such as spreads of deposits.

Interest-rate risk management policy is aimed, in congruence with the objectives of the Bank, at achieving the desired structure of exposures in each segment (unlinked shekel; CPI-linked shekel; foreign currency and foreign-currency-linked), in accordance with estimates concerning market variables, and subject to limits. Sensitivity to interest rates is measured, in a controlled manner, at least once each month, with more frequent measurements for exposure management purposes. In general, the goal of interest-rate risk management in the Group is to allow service to customers while taking controlled risks.

Interest-rate risk in the banking book (non-trading market risk) at Bank Hapoalim is managed in the Financial Markets and International Banking Division by the Asset and Liability Management Area, and separately by each subsidiary in the Bank Group, according to policy established by each company's board of directors and in accordance with Group policy. The risk is assessed and controlled based on a uniform methodology at the Group level, under the direction of the Risk Management Division and the Financial Markets Division, taking into account the size of capital and the unique characteristics of the activity of each subsidiary. The subsidiaries' exposure to risk is examined by units at the Head Office and reported to the Board of Management and the Board of Directors of the Bank at an appropriate frequency based on the risk level. The Bank has set risk limits for the Group that also apply to subsidiaries with a risk level which has been defined as significant for the Group.

Interest-rate risk exposures are identified methodically, by collecting information from product management systems. This information is analyzed in order to manage and assess the risk, using advanced automated systems adapted to each need, based on commonly accepted models. The models are subject to an orderly validation procedure.

In the banking book in Israel, cash flows arising from assets and liabilities are generated and analyzed by a designated interest-rate risk management system for all banking products, according to dates of changes in the interest rate. Data are also received in separate files from the New York branch and from the subsidiaries with exposure significant for the Group. Concurrently, sensitivity calculations are performed at the Market and Liquidity Risk Management Department in the Risk Management Division, using the risk-management system.

Tools for the management and hedging of exposures in the banking book include pricing policy, bond portfolio management, issuance of debt instruments, off-balance sheet transactions, and more. The Bank's management of non-trading exposures is based, among other things, on forecasts and working assumptions regarding expected developments in financial and capital markets in Israel and worldwide. The Bank uses derivatives and applies hedge accounting rules to hedge part of the interest-rate sensitivity of long-term bonds in foreign currency. The effect of transactions executed in the markets is examined on a weekly basis by the Asset and Liquidity Management Area; the change in economic value arising from changes in markets on the banking book, including hedges, is examined on a monthly basis.

The economic value sensitivity table presents an analysis of the sensitivity of the Bank's economic value to changes in interest-rate curves, based, among other factors, on the discounting of expected cash flows by interest-rate curves that do not take into account the credit risk spread of the counterparty, with the use of internal models for some products. This differs from the calculation in fair-value tables, where the expected cash flows are discounted by a rate that also reflects the risk level of the counterparty to the financial instrument. Pursuant to the Public Reporting Directives of the Bank of Israel, the Bank applies hypothetical shock and stress scenarios of changes in interest rates to the adjusted fair value of the financial instruments used by the Bank. The stress scenarios are calculated according to formulas defined in the Bank of Israel reporting requirements. The required scenarios are parallel scenarios in interest-rate curves, steepening (a decrease in the short-term interest rate and an increase in the long-term interest rate), and flattening (an increase in the short-term interest rate and a decrease in the long-term interest rate), as well as scenarios of an increase in the short-term interest rate and a decrease in the short-term interest rate. The scenarios were applied uniformly to all of the currencies included in the report to the public.

Table F-5: Adjusted* net fair value of the financial instruments of the Bank and its consolidated companies

	December 31, 2022					December 31, 2021				
	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total
	NIS millions									
Financial assets**	**458,609**	**57,106**	**84,786**	**14,297**	**614,798**	470,057	60,262	72,412	10,721	613,452
Other amounts receivable in respect of derivative, hybrid, and off-balance sheet financial instruments	**556,296**	**21,078**	**517,498**	**60,888**	**1,155,760**	393,246	20,899	301,262	60,616	776,023
Financial liabilities**	**402,608**	**31,138**	**136,258**	**15,041**	**585,045**	402,252	34,819	121,294	15,506	573,871
Other amounts payable in respect of derivative, hybrid, and off-balance sheet financial instruments	**599,672**	**25,298**	**466,949**	**60,959**	**1,152,878**	445,256	22,441	253,559	56,174	777,430
Net fair value of financial instruments	**12,625**	**21,748**	**(923)**	**(815)**	**32,635**	15,795	23,901	(1,179)	(343)	38,174
Effect of employee benefit liabilities	**-**	**(4,149)**	**-**	**-**	**(4,149)**	-	(5,030)	-	-	(5,030)
Effect of spreading over periods of on-demand deposits	**14,990**	**-**	**3,029**	**725**	**18,744**	4,386	-	1,617	236	6,239
Adjusted net fair value**	**27,615**	**17,599**	**2,106**	**(90)**	**47,230**	20,181	18,871	438	(107)	39,383
Of which: banking book	**27,595**	**18,090**	**2,062**	**(69)**	**47,678**	20,317	18,508	193	(38)	38,980

* Net fair value of financial instruments, excluding non-monetary items, and after the effect of employee benefit liabilities and spreading over periods of on-demand deposits. For further details regarding the assumptions used to calculate the fair value of financial instruments, see Note 32 to the Financial Statements.

** Excluding balance sheet balances of derivative financial instruments, fair value of off-balance sheet financial instruments, and fair value of hybrid financial instruments.

Table F-6: Effect of scenarios of changes in interest rates on the adjusted* net fair value of the Bank and its consolidated companies

	December 31, 2022					December 31, 2021				
	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total
	NIS millions									
Parallel changes										
1% parallel increase	**890**	**(655)**	**27**	**10**	**272**	1,027	(585)	86	141	669
Of which: banking book	**844**	**(659)**	**26**	**9**	**220**	992	(578)	91	142	647
1% parallel decrease	**(843)**	**696**	**(33)**	**(19)**	**(199)**	(1,032)	582	(92)	(62)	(604)
Of which: banking book	**(795)**	**700**	**(32)**	**(18)**	**(145)**	(1,005)	575	(98)	(59)	(587)
Non-parallel changes										
Steepening[(1)]	**(186)**	**(94)**	**64**	**30**	**(186)**	(235)	(11)	(77)	35	(288)
Of which: banking book	**(118)**	**(96)**	**56**	**30**	**(128)**	(215)	(14)	(81)	36	(274)
Flattening[(2)]	**454**	**(32)**	**(36)**	**(34)**	**352**	542	(106)	74	(7)	503
Of which: banking book	**375**	**(31)**	**(28)**	**(34)**	**282**	514	(101)	77	(9)	481
Increase in short-term interest rate	**751**	**(308)**	**(7)**	**(23)**	**413**	877	(341)	61	35	632
Of which: banking book	**660**	**(308)**	**1**	**(22)**	**331**	839	(334)	63	33	601
Decrease in short-term interest rate	**(746)**	**305**	**57**	**18**	**(366)**	(883)	337	(60)	(33)	(639)
Of which: banking book	**(657)**	**305**	**49**	**17**	**(286)**	(846)	330	(62)	(31)	(609)

* Net fair value of financial instruments, excluding non-monetary items, and after the effect of employee benefit liabilities and spreading over periods of on-demand deposits.
(1) Steepening – decrease in the short-term interest rate and increase in the long-term interest rate.
(2) Flattening – increase in the short-term interest rate and decrease in the long-term interest rate.

Table F-7: Sensitivity of the economic value of the Bank to parallel changes in interest-rate curves (theoretical change in economic value as a result of each scenario)

	December 31, 2022			December 31, 2021		
	Unlinked NIS	CPI-linked NIS	Foreign currency	Unlinked NIS	CPI-linked NIS	Foreign currency
	NIS millions					
Parallel changes						
1% parallel increase	**111**	**(964)**	**(116)**	528	(945)	162
1% parallel decrease	**8**	**1,072**	**113**	(445)	1,040	(166)

The decrease in sensitivity of economic value in the shekel segment in 2022 mainly resulted from an update of the current-account model balance layout, issuance of bonds and Tier 2 capital, and an increase in deposits. An offsetting effect was recorded due to an update of parameters of mortgage prepayments (as a result of the increase in the interest rate in Israel), and due to continued activity of granting mortgages and credit, bond purchases, shortening of the issuances, and an increase in activity in interest-rate derivatives. The decrease in the sensitivity of economic value in the foreign-currency segment mainly resulted from an update of the current-account model balance layout.

The difference between economic value sensitivity and fair value sensitivity as at December 31, 2022, mainly stems from the use of different discount curves, as described above, the effect of which is estimated at approximately NIS 0.5 billion in the unlinked segment and approximately NIS 0.3 billion in the CPI-linked segment.

Table F-8: Effect of scenarios of changes in interest rates on net interest income and on non-interest financing income

	December 31, 2022			December 31, 2021		
	Interest income	Non-interest financing income	Total	Interest income	Non-interest financing income	Total
	NIS millions					
1% parallel increase	**681**	**(243)**	**438**	1,391	(12)	1,379
Of which: banking book	**681**	**(291)**	**390**	1,391	(37)	1,354
1% parallel decrease	**(1,773)**	**233**	**(1,540)**	(716)	(57)	(773)
Of which: banking book	**(1,773)**	**284**	**(1,489)**	(716)	(41)	(757)

Income sensitivity in the table above was calculated by shifting yield curves, using assumptions regarding changes in deposit spreads, which are updated from time to time based on the interest-rate environment and other factors; assumptions of transfer of funds from current accounts to deposits in the case of an increase in the interest rate, versus stability of balances in the case of a decrease in the interest rate; and the assumption of interest-rate floors, such that the various interest-rate curves may fall to zero. The changes in deposit spreads were determined according to behavioral assumptions, which are examined periodically in accordance with developments in the interest-rate environment. In the foreign-currency segment, the interest-rate curve may fall to the lower of zero or the negative interest rate posted by the central bank. The sensitivity of the trading book was calculated using the MTM approach. The increase in the sensitivity of income to a decrease in the interest rate resulted from growth in positive current-account balances in the model and from an increase in the short-term interest rate, which increased the distance from the interest-rate floor. In the fourth quarter, the Bank continued to conduct activity in bonds and interest-rate derivatives aimed at mitigating the effect of changes in interest rates on the income of the Bank in the future. Yield curves continued to rise in the fourth quarter of 2022, particularly interest rates of the central banks in Israel and the United States, and there are expectations of a continued process of increases in the interest rates of the central banks. The increase in yield curves affects economic value, as detailed in the economic value sensitivity table above. The increase in short-term interest rates, particularly the interest rates of the central banks, has a positive effect on the income of the Bank over time, as detailed in the income sensitivity table above; part of this effect may wane with the transition from current-account deposits to other products. However, the increase in yield curves has a negative effect on the shareholders' equity of the Bank, due to the decrease in value of the available-for-sale bond portfolio (offset by the change in value of employee benefit liabilities), as in contrast to economic value sensitivity, which takes into consideration all of the financial instruments in the Bank's balance sheet, shareholders' equity is only influenced by some of these instruments. For details, see the section "Capital adequacy," above. To mitigate the effect of future changes in interest rates on the shareholders' equity of the Bank, bonds in the amount of approximately NIS 3.5 billion (in shekel and foreign currency) were transferred from the available-for-sale portfolio to the held-to-maturity portfolio during the first quarter; during the year, the Bank also continued its activity in the held-to-maturity portfolio.

Table F-9: Total exposure of the Bank and its consolidated companies to changes in interest rates

	December 31, 2022				
	On demand up to 1 month	Over 1 month up to 3 months	Over 3 months up to 1 year	Over 1 year up to 3 years	Over 3 years up to 5 years
	NIS millions				
Reported amounts					
Financial assets[1]	**389,770**	**29,448**	**42,268**	**66,428**	**37,954**
Other amounts receivable[2]	**227,667**	**434,566**	**295,927**	**99,224**	**59,878**
Financial liabilities[1]	**300,000**	**36,233**	**97,353**	**59,672**	**34,318**
Other amounts payable[2]	**241,887**	**455,212**	**252,980**	**97,897**	**59,964**
Exposure to changes in interest rates	**75,550**	**(27,431)**	**(12,138)**	**8,083**	**3,550**
Additional details of exposure to changes in interest rates					
a. By nature of activity					
Exposure in the banking book	**40,948**	**6,032**	**(10,009)**	**4,826**	**4,913**
Exposure in the trading book	**34,602**	**(33,463)**	**(2,129)**	**3,257**	**(1,363)**
b. By linkage base	**-**	**-**	**-**	**-**	**-**
Israeli currency unlinked	**83,056**	**(26,468)**	**(10,170)**	**(10,174)**	**(7,922)**
Israeli currency CPI-linked	**1,192**	**(801)**	**(139)**	**8,910**	**8,251**
Foreign currency (including foreign currency linked)	**(8,698)**	**(162)**	**(1,829)**	**9,347**	**3,221**
c. Effects on exposure to changes in interest rates					
Effect of employee benefit liabilities	**-**	**(99)**	**(282)**	**(607)**	**(594)**
Effect of spreading over periods of on-demand deposits	**115,800**	**-**	**(25,943)**	**(23,818)**	**(21,777)**
Effect of early repayments of housing loans	**39**	**68**	**237**	**487**	**(19)**

* Average weighted by fair value of effective average duration.

(1) Excluding balance sheet balances of derivative financial instruments, fair value of off-balance sheet financial instruments, and fair value of hybrid financial instruments. After the effect of spreading over periods of on-demand deposits.

(2) Amounts receivable and payable in respect of derivative, hybrid, and off-balance sheet financial instruments, after the effect of employee benefit liabilities.

General notes

A. Further details regarding the exposure to changes in the interest rate in each segment of the financial assets and financial liabilities, according to the various balance sheet items, will be provided upon request.

B. In this table, the data by period represent the present value of future cash flows of each financial instrument (excluding non-monetary items) and of other amounts receivable and payable, after the effect of employee benefit liabilities and of the spreading over periods of on-demand deposits, as explained in footnote c below, capitalized at the interest rates discounting them to the fair value included in respect of the financial instrument in Note 32 to the Financial Statements, in consistency with the assumptions used to calculate the fair value of the financial instrument.

C. The present value of cash flows arising from on-demand deposits was calculated according to the assumptions regarding terms to maturity used by the Bank in interest-rate risk management.

D. The internal return rate is the interest rate for discounting of the expected cash flows from the financial instrument to the fair value included in respect thereof in Note 32 to the Financial Statements.

E. The effective average duration of a group of financial instruments constitutes an approximation of the change, in percent, in the fair value of the group of financial instruments which would be caused by a small change (an increase of 0.1%) in the internal return rate of each of the financial instruments.

December 31, 2022							December 31, 2021		
Over 5 years up to 10 years	Over 10 years up to 20 years	Over 20 years	No maturity period	Total fair value	Internal rate of return	Effective average duration	Total fair value	Internal rate of return	Effective average duration
				NIS millions	%	Years	NIS millions	%	Years
29,054	11,049	1,708	15,551	623,230	4.46%	1.13	619,464	1.79%	1.09
35,563	2,882	55	879	1,156,641		0.66	777,469		0.94
35,539	3,191	-	4,390	570,696	3.97%	1.19	570,024	0.99%	1.23
44,194	4,453	440	890	1,157,917		0.69	783,906		0.97
(15,116)	6,287	1,323	11,150	51,258		-	43,003		
(14,439)	7,136	1,149	11,221	51,777		*(0.54)	42,632		*(1.89)
(677)	(849)	174	(71)	(519)		*11.61	371		*(5.47)
-	-	-	-	-					
(11,619)	4,894	832	5,184	27,613		*(3.97)	20,183		*(6.17)
(1,837)	1,450	491	82	17,599		*3.74	18,872		*3.12
(1,660)	(57)	-	1,856	2,018		*(22.84)	328		*32.15
(1,101)	(1,081)	(385)	-	(4,149)	1.82%	8.77	(5,030)	0.07%	9.32
(25,518)	-	-	-	18,744	1.61%	1.32	6,239	1.44%	1.19
256	(505)	(293)	-	270	(0.02%)	(0.07)	302	(0.17%)	(0.16)

F.4. Share and credit spread risk – investment risk

Investment risk is defined at the Bank as exposure to the stock market, to credit spreads, and to credit risk in the bond and stock markets in the banking book of the Group (as a result of holdings in these products, the Bank may also be exposed to interest-rate risks and/or currency risks and/or liquidity risks, which are managed separately). According to the definition at the Bank, Israeli government bonds in NIS and in foreign currency and government bonds of the country in which a branch/subsidiary operates, held by the branch/subsidiary, do not bear investment risk, and are therefore not included in the measurement of investment risk at the Bank.

Investment risk primarily arises at the Group in three frameworks:

1. An investment portfolio managed under the responsibility of the Financial Markets and International Banking Division. in general, these investments are performed through tradable securities.
2. Non-tradable investments, usually performed through the subsidiary Poalim Equity, according to policy established periodically by the board of directors of the company, in conformity with the policy of the Group. The risk appetite limit for this activity was raised over the last few years, within a multi-year investment trajectory approved by the Board of Directors of the Bank. For details, see the section "Principal companies" in the Report of the Board of Directors and Board of Management.
3. Affiliates: strategic holdings in shares of subsidiaries. For details, see Note 15 to the Financial Statements.

The Group holds shares and bonds, primarily for investment purposes, a decrease in the value of which may harm the profit and loss of the Bank and/or the capital of the Bank.

F.4.a. Management of investment risk in the portfolio under management

Investment portfolio management at the Bank by the Financial Markets and International Banking Division is a tool for the management of liquidity surpluses, and an additional tool for the management of exposures to interest rates, linkage bases, and liquidity in the banking book. In general, the investment portfolio consists of products traded on the financial markets, for which price quotes can be obtained.

The investment framework was established from a global, systemic perspective, with the approval of the Board of Directors of the Bank, and includes limits on the volume of the investment and on risk indicators, including limits on risk appetite and on risk capacity in terms of stress scenarios, and individual limits for the various investment segments, including volume limits by type, geographical diversification limits, rating limits, and more. Investments are performed through specified permitted instruments.

Risk is managed under the overarching responsibility of the Financial Markets and International Banking Division, with respect to the implementation of policy in the Group, allocation of the limits approved by the Board of Management and Board of Directors, monitoring, guidance, and reporting. Management in practice is performed by the Nostro Investment Management Unit in the Financial Markets and International Banking Division, using dedicated systems. In addition, investment activity is permitted at a limited number of subsidiaries. Managerial responsibility for the activity of each subsidiary rests with the member of the Board of Management who oversees that company.

In the second line of defense, the Market and Liquidity Risk Management Department in the Risk Management Division is responsible for formulating methodology for the assessment of investment risks and for independent risk assessment and control. This department also challenges the business function and provides an independent review, pursuant to Proper Conduct of Banking Business Directive 311, prior to material investments.

This activity is subject to all relevant directives and laws in this area, in Israel and in the country in which the branch/subsidiary conducting the activity is located. Due to the complexity of the regulatory directives, specific regulatory procedures have been established for this activity.

Investment risks are identified and measured methodically, by collecting information from the Bank's systems. This information is analyzed using the Bank's risk-management systems, and reported periodically to the committees of the Board of Management and of the Board of Directors.

In general, shares at the Bank are classified in accounting as "shares not held for trading," and accounted for as follows: shares with readily available fair value are measured at fair value on the reporting date; profits and losses from adjustments to fair value are recorded to the statement of profit and loss. Shares without a readily available fair value are measured at cost net of impairment, if any, plus or minus observable price changes in ordinary transactions for identical or similar investments of the same issuer. Unrealized profits or losses from adjustments to such observable price changes are recorded to the statement of profit and loss. Each reporting period, the Board of Management of the Bank determines whether decreases in the fair value of securities classified into the available-for-sale portfolio are other than temporary. This examination consists of several stages and principles, as noted in Note 1E to the Financial Statements, Section 8(b). When other-than-temporary impairment occurs in a security, the cost of the security is written down to its fair value at the balance sheet date and used as the new cost base. The amount of the write-down is recorded to profit and loss. Impairments in respect of shares without a readily determinable fair value are accounted for as noted in Note 1E to the Financial Statements, Section 8(c).

F.4.b. Positions in shares in the investment portfolio

Table F-10: Details of the Bank Group's investments in shares in the banking book, by balance sheet classification

	December 31, 2022		December 31, 2021	
	Balance sheet value	Capital requirements[1]	Balance sheet value	Capital requirements[1]
	NIS millions			
Investments classified into the trading book	**-**	**[2]-**	-	[2]-
Investments in shares not held for trading	**4,048**	**595**	3,650	497
Total investments in shares	**4,048**	**595**	3,650	497
Of which: traded on a stock exchange	**1,733**		1,592	
Privately held	**2,315**		2,058	

(1) The capital requirements were calculated in accordance with the minimum total capital ratio required by the Banking Supervision Department, at 13.5% as at December 31, 2022, and 12.5% as at December 31, 2021.
(2) Including capital allocation with respect to specific market risk and general market risk.

For details regarding investments of the Bank, see Note 12 to the Financial Statements.

G. Liquidity risk

Liquidity risk – Liquidity risk is defined as present or future risk to the stability and profits of the Bank arising from an inability to meet its obligations. Liquidity risk at the Bank is examined from a broader perspective, encompassing the ability to repay liabilities on schedule, including during times of stress, without damage to routine operations within the business plans of the Bank and without incurring exceptional losses.

Refinancing risk – The risk of inability to raise new resources to replace resources that have matured, or the risk that the reissue may be performed at durations and terms that significantly impair the Bank's net interest income. This risk is managed as part of liquidity risk. In light of the financing sources of the Bank, the Bank does not view this risk as a material risk in its own right. The Bank accords high importance to raising resources that are stable and highly diversified.

Liquidity risk is managed based on a global view of the Bank's activity in Israel, at its overseas branches, and at subsidiaries with significant liquidity risk for the Group. Routine liquidity risk management is under the responsibility of the Asset and Liability Management Area, and is conducted in accordance with a Group-level policy, with the aim of maintaining the ability of the Bank to meet all of its present liabilities without damage to its routine operations and existing capabilities, and without incurring exceptional losses. Reports are submitted to Board of Management committees on a monthly basis, and to Board of Directors committees on a quarterly basis. The Bank continually monitors its stable financing ratio, examines the effects of the business plan on its liquidity profile, and ensures that it continues to comply with all limits in the course of the expected changes on the business level. The Market and Liquidity Risk Management Department in the Risk Management Division routinely monitors liquidity using internal and environmental parameters, independently reports the risk level to the committees of the Board of Management and the Board of Directors, and challenges the parameters in the various models related to liquidity.

The Bank calculates its stand-alone and consolidated liquidity ratios daily, with a division into NIS and foreign currency, and monitors this ratio at its subsidiaries (which are required to comply with internal liquidity limits adapted to the nature of their activity). These ratios are reported as an average of the daily observations. The number of observations used to calculate the averages in the reported quarter is 57.

Table G-1: Liquidity coverage ratio (LCR) – limited banking corporation and consolidated subsidiaries, for the three-month period

	For the quarter ended December 31, 2022	
	Total unweighted value*	Total weighted value**
Total high-quality liquid assets		
Total high-quality liquid assets (HQLA)		**179,514**
Cash outflows		
Retail deposits from individuals and from small business customers, of which:	**253,557**	**19,186**
Stable deposits	**79,553**	**3,978**
Less stable deposits	**122,120**	**13,652**
Deposits for a period greater than 30 days (Section 84 of Proper Conduct of Banking Business Directive 221)	**51,884**	**1,556**
Unsecured wholesale financing, of which:	**185,597**	**123,976**
Operational deposits (all counterparties) and deposits in networks of cooperative banks	**2,920**	**730**
Non-operational deposits (all counterparties)	**181,428**	**121,997**
Unsecured debts	**1,249**	**1,249**
Secured wholesale financing	**3,773**	**937**
Additional liquidity requirements, of which:	**120,669**	**18,850**
Outflows related to derivative exposure and other collateral requirements	**25,885**	**8,757**
Outflows related to loss of funding on debt products	**-**	**-**
Credit and liquidity facilities	**94,784**	**10,093**
Other contractual funding obligations	**11,227**	**11,227**
Other contingent funding obligations	**79,158**	**2,010**
Total cash outflows	**-**	**176,186**
Cash inflows		
Secured lending (e.g. reverse repos)	**1,553**	**-**
Inflows from fully performing exposures	**39,500**	**19,639**
Other cash inflows	**11,107**	**8,835**
Total cash inflows	**-**	**28,474**

	Total adjusted value***
Total high-quality liquid assets (HQLA)	**179,514**
Total net cash outflows	**147,712**
Liquidity coverage ratio (%)	**122%**

* Unweighted values were calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows), based on an average of daily observations.

** Weighted values were calculated after the application of respective haircuts or inflow and outflow rates (for inflow and outflow), based on an average of daily observations. The number of observations used to calculate the averages in the reported quarter is 57.

*** Adjusted values were calculated after the application of: (1) haircuts and inflow and outflow rates; and (2) any applicable caps (i.e. caps on level 2B and level 2 assets for HQLA and a cap on inflows).

Table G-1: Liquidity coverage ratio – limited banking corporation and consolidated subsidiaries, for the three-month period (continued)

	For the quarter ended December 31, 2021	
	Total unweighted value*	Total weighted value**
Total high-quality liquid assets		
Total high-quality liquid assets (HQLA)	-	205,777
Cash outflows		
Retail deposits from individuals and from small business customers, of which:	240,538	19,695
Stable deposits	80,211	4,011
Less stable deposits	129,684	14,765
Deposits for a period greater than 30 days (Section 84 of Proper Conduct of Banking Business Directive 221)	30,643	919
Unsecured wholesale financing, of which:	203,688	137,044
Operational deposits (all counterparties) and deposits in networks of cooperative banks	2,644	661
Non-operational deposits (all counterparties)	200,602	135,941
Unsecured debts	442	442
Secured wholesale financing	1,014	2
Additional liquidity requirements, of which:	115,261	19,971
Outflows related to derivative exposure and other collateral requirements	12,179	8,144
Outflows related to loss of funding on debt products	-	-
Credit and liquidity facilities	103,082	11,827
Other contractual funding obligations	6,544	6,544
Other contingent funding obligations	67,243	1,988
Total cash outflows	-	185,244
Cash inflows		
Secured lending (e.g. reverse repos)	1,678	1,212
Inflows from fully performing exposures	24,833	13,418
Other cash inflows	9,764	4,932
Total cash inflows	-	19,562

	Total adjusted value***
Total high-quality liquid assets (HQLA)	205,777
Total net cash outflows	165,682
Liquidity coverage ratio (%)	124%

* Unweighted values were calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows), based on an average of daily observations.

** Weighted values were calculated after the application of respective haircuts or inflow and outflow rates (for inflow and outflow), based on an average of daily observations. The number of observations used to calculate the averages in the reported quarter is 66.

*** Adjusted values were calculated after the application of: (1) haircuts and inflow and outflow rates; and (2) any applicable caps (i.e. caps on level 2B and level 2 assets for HQLA and a cap on inflows).

The average liquidity coverage ratio during the fourth quarter of 2022 (the average of the daily observations) is 122% consolidated and 121% for the stand-alone banking corporation, while the minimum requirement is 100%. The average ratio in the fourth quarter of 2022 decreased in comparison to the liquidity coverage ratio in the fourth quarter of 2021, due to an increase in credit beyond the increase in deposits. In view of the volatility in the markets, particularly stock markets in the United States and in Israel and the NIS-foreign currency swap market, the Bank is maintaining high liquidity levels.

The net stable financing ratio at the end of the fourth quarter of 2022 is 130%, consolidated, while the minimum requirement is 100%. The net stable financing ratio decreased in comparison to the ratio as at December 31, 2021, due to growth of financing needs (mainly in respect of credit) beyond the increase in stable financing sources.

The liquid assets of the Bank mainly consist of Israeli government bonds in NIS and in foreign currency, United States government bonds in foreign currency, and deposits with central banks (the Bank of Israel and the Federal Reserve). The Bank manages the liquidity coverage ratio, and accordingly its liquid assets, separately in NIS and foreign currencies. For details of liquid assets by level, see the table below. The Board of Directors of the Bank has adopted an internal limit stricter than the regulatory LCR requirement, both for the stand-alone banking corporation and consolidated.

The main source of funding of the Bank is deposits from retail customers and small businesses in Israel, which have low liquidity risk relative to other resources. In addition, the Bank obtains financing through issues, deposits from corporate and financial companies, and more. Funding in foreign currency includes deposits from private customers and from corporate clients in Israel, foreign residents, Israeli companies abroad, repo deposits, issues of CDs and other instruments secured by the FDIC in the United States, and additional resources. Deposits from corporate and financial entities with a maturity date of up to one month are subject to high outflow coefficients, pursuant to the directive, and therefore have a relatively large contribution to cash outflow. The Bank monitors the concentration of funding sources, in various breakdowns, in both NIS and foreign currency, and complies with the internal limits in this area. The Bank does not rely on funding from the capital market as a major financing source.

Derivatives create a large inflow and a large outflow, and lead to redirection of liquid assets and net cash outflow between NIS and foreign currency, but their net contribution in all currencies is low. In the calculation of liquid assets, the Bank does not include collateral which it is required to deposit against derivatives activity; volatility in the volume of this deposit is taken into consideration, as required in the directive.

In addition to the measurement of the liquidity ratio according to Proper Conduct of Banking Business Directive 221, as described above, the Bank applies additional tools and monitors additional indicators of liquidity risk. In accordance with Proper Conduct of Banking Business Directive 342, "Liquidity Risk Management," the Bank applies an internal liquidity risk assessment model, in addition to the regulatory model. The internal model reflects the approach of the Board of Management with regard to the behavioral characteristics of financial assets and liabilities. This model is based on the proven stability of deposits at the Bank, and includes different scenarios with respect to rollover and maturity rates of assets and liabilities. In general, while in the ordinary course of business the Bank assumes very high rollover of deposits and credit, in stress scenarios the Bank assumes an outflow of deposits, according to types of customers and deposits; utilization of credit lines beyond the usual levels; declines in value of assets; and additional factors. These factors are examined annually by the Board of Management and Board of Directors of the Bank. In each scenario, the liquidity gap for a period of up to one month against liquid assets is examined, and a liquidity ratio is calculated; this ratio is not to fall below the minimum level specified in the directive. The scenarios applied in the internal model refer to different market conditions, and specifically to a bank scenario, a system scenario, and a combined scenario.

The scenarios differ primarily in the assumptions with regard to rollover of deposits and haircuts for liquid assets. The Bank also applies models for longer and shorter periods; an NSFR model (in accordance with Proper Conduct of Banking Business Directive 222); depositor concentration indices; an alert system, including a system that monitors indicators that may point to a risk of a crisis situation, with an action plan; and more. Some of these indicators are subject to internal and/or regulatory limits. The Bank also monitors various liquidity ratios at the subsidiaries (which are required to comply with both internal liquidity limits adapted to the nature of their operations, and the limits of the local regulator).

The Bank maintains a liquidity cushion for stress situations; maintains a balance sheet structure, and in particular a resource structure, that brings liquidity risk to the preferred level; monitors early-warning systems to identify stress situations in the liquidity environment as early as possible; and maintains a contingency plan for crisis situations, which includes the convening of committees, reporting requirements, and a series of steps for coping with a possible crisis, according to scenarios.

Pursuant to Proper Conduct of Banking Business Directive 222 ("Net Stable Financing Ratio" (NSFR)), beginning December 31, 2021, the Bank has calculated the NSFR in accordance with the regulatory requirement. The Board of Directors of the Bank has adopted an internal limit stricter than the regulatory requirement for the NSFR.

Table G-2: Net stable financing ratio (NSFR), limited banking corporation and consolidated subsidiaries

	December 31, 2022				
	Unweighted value by term to maturity				Weighted value
	No maturity date*	Up to 6 months	6 months to 1 year	1 year or more	
Available stable financing (ASF) items					
Capital:	-	-	-	**61,620**	**61,620**
Supervisory capital	-	-	-	**61,620**	**61,620**
Other capital instruments	-	-	-	-	-
Retail deposits from individuals and small businesses:	-	**223,091**	**12,513**	**17,707**	**234,073**
Stable deposits	-	**84,458**	**1,990**	**5,655**	**87,781**
Less stable deposits	-	**138,633**	**10,523**	**12,052**	**146,292**
Wholesale funding:	-	**225,342**	**14,709**	**6,303**	**78,343**
Operational deposits	-	-	-	-	-
Other wholesale funding	-	**225,342**	**14,709**	**6,303**	**78,343**
Liabilities with matching interdependent assets	-	-	-	-	-
Other liabilities:	-	**39,626**	**8,821**	**31,076**	**38,114**
NSFR derivative liabilities			**403**		
All other liabilities and equity not included in the above categories	-	**39,223**	**8,821**	**31,076**	**38,114**
Total available stable financing (ASF)	-	**488,059**	**36,043**	**116,706**	**412,150**
Required stable financing (RSF) items					
Total NSFR high-quality liquid assets (HQLA)	-	**145,423**	**14,296**	**56,096**	**7,936**
Deposits held at other financial institutions for operational purposes	-	-	-	-	-
Performing loans and securities:	-	**78,379**	**41,559**	**260,484**	**272,718**
Performing loans to financial institutions secured by Level 1 HQLA	-	-	-	-	-
Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	-	**8,599**	**2,988**	**7,384**	**10,167**
Performing loans to non-financial wholesale clients, loans to retail and small business customers, and loans to sovereigns, central banks, and PSEs, of which:	-	**65,944**	**35,369**	**125,242**	**156,178**
With a risk weight of less than or equal to 35% under Proper Conduct of Banking Business Directive 203	-	**12,153**	**8,184**	**4,669**	**13,204**
Performing residential mortgages, of which:	-	**3,204**	**3,168**	**121,728**	**100,487**
With a risk weight of less than or equal to 35% under Proper Conduct of Banking Business Directive 203	-	**1,178**	**1,165**	**30,839**	**21,217**
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	-	**632**	**34**	**6,130**	**5,886**
Assets with matching interdependent liabilities	-	-	-	-	-
Other assets:	-	**24,031**	**103**	**7,445**	**27,377**
Physical traded commodities, including gold	-				-
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs			**135**		**115**
NSFR derivative assets			**6,906**		**6,503**
NSFR derivative liabilities before deduction of variation margin posted			**200**		**200**
Others	-	**16,790**	**103**	**7,445**	**20,559**
Off-balance sheet items			**183,135**		**8,290**
Total required stable financing (RSF)					**316,321**
Net stable financing ratio (NSFR) (%)					**130%**

* Items reported in the column "no maturity date" are items with no stated maturity date. These may include, but are not limited to, items such as capital with perpetual maturity, non-maturity deposits, short positions, open maturity positions, non-HQLA equities, and physically traded commodities.

Table G-2: Net stable financing ratio (NSFR), limited banking corporation and consolidated subsidiaries (continued)

	December 31, 2021**				
	Unweighted value by term to maturity				Weighted value
	No maturity date*	Up to 6 months	6 months to 1 year	1 year or more	
Available stable financing (ASF) items					
Capital:	-	-	-	47,499	47,499
Supervisory capital	-	-	-	47,499	47,499
Other capital instruments	-	-	-	-	-
Retail deposits from individuals and small businesses:	-	226,110	4,654	9,959	221,964
Stable deposits	-	84,898	1,428	4,014	86,024
Less stable deposits	-	141,212	3,226	5,945	135,940
Wholesale funding:	-	248,294	12,185	6,264	78,685
Operational deposits	-	-	-	-	-
Other wholesale funding	-	248,294	12,185	6,264	78,685
Liabilities with matching interdependent assets	-	-	-	-	-
Other liabilities:	-	22,970	8,117	35,077	41,480
NSFR derivative liabilities		1,182			
All other liabilities and equity not included in the above categories	-	21,788	8,117	35,077	41,480
Total available stable financing (ASF)	-	497,374	24,956	98,799	389,628
Required stable financing (RSF) items					
Total NSFR high-quality liquid assets (HQLA)	-	191,419	2,517	46,335	7,008
Deposits held at other financial institutions for operational purposes	-	-	-	-	-
Performing loans and securities:	-	62,298	38,201	239,224	247,343
Performing loans to financial institutions secured by Level 1 HQLA	-	-	-	-	-
Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	-	3,629	2,280	7,439	9,124
Performing loans to non-financial wholesale clients, loans to retail and small business customers, and loans to sovereigns, central banks, and PSEs, of which:	-	54,333	32,624	120,721	145,258
With a risk weight of less than or equal to 35% under Proper Conduct of Banking Business Directive 203	-	10,290	8,306	4,169	12,008
Performing residential mortgages, of which:	-	3,221	3,227	108,678	90,103
With a risk weight of less than or equal to 35% under Proper Conduct of Banking Business Directive 203	-	1,195	1,157	27,485	19,042
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	-	1,115	70	2,386	2,858
Assets with matching interdependent liabilities	-	-	-	-	-
Other assets:	-	19,538	103	7,092	24,029
Physical traded commodities, including gold	-				-
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		1,274			1,083
NSFR derivative assets		5,136			3,954
NSFR derivative liabilities before deduction of variation margin posted		297			297
Others	-	12,831	103	7,092	18,695
Off-balance sheet items		182,618			8,326
Total required stable financing (RSF)					286,706
Net stable financing ratio (NSFR) (%)					136%

* Items reported in the column "no maturity date" are items with no stated maturity date. These may include, but are not limited to, items such as capital with perpetual maturity, non-maturity deposits, short positions, open maturity positions, non-HQLA equities, and physically traded commodities.

** Restated.

The Bank is in compliance with all regulatory and internal liquidity limits, including, among others, the LCR according to Proper Conduct of Banking Business Directive 221, the internal LCR model for thirty days and for shorter and longer ranges, and the NSFR (net stable financing ratio) model. In accordance with Proper Conduct of Banking Business Directive 221, as at December 31, 2022, the Bank holds consolidated liquid assets (primarily reserves at central banks, tradable securities of sovereigns and central banks, and coins and bills) for times of crisis (after haircuts) in the amount of NIS 182.5 billion, in addition to liquid bonds not recognized for the purposes of the calculation of liquid assets. In light of the assumptions regarding rollover of deposits in the ordinary course of business, and other assumptions, the Bank does not foresee liquidity problems that would necessitate the use of the liquid assets; however, it is prepared for the required scenarios.

Table G-3: Details of liquid assets, by level, as required in the Basel directives

	Balance as at December 31, 2022	**Average in the quarter ended December 31, 2022**
	NIS millions	
Level 1 assets	**180,690**	**177,814**
Level 2A assets	**1,681**	**1,542**
Level 2B assets	**167**	**158**
Total HQLA	**182,538**	**179,514**

	Balance as at December 31, 2021	Average in the quarter ended December 31, 2021
	NIS millions	
Level 1 assets	217,008	203,731
Level 2A assets	1,623	1,837
Level 2B assets	207	209
Total HQLA	218,838	205,777

Table G-4: Pledged and unpledged available assets*

	Fair value balance as at December 31, 2022			
	Pledged assets**	Assets serving as collateral for a central bank	Unpledged assets	Total
	NIS millions			
Cash and deposits with banks	**2,244**	**-**	**131,180**	**133,424**
Israeli government bonds	**11,719**	**2,849**	**52,905**	**67,473**
Foreign government bonds	**4,614**	**-**	**19,604**	**24,218**
Bonds of financial institutions in Israel	**-**	**-**	**299**	**299**
Bonds of foreign financial institutions	**1,840**	**2,178**	**3,936**	**7,954**
Bonds of others in Israel	**-**	**-**	**-**	**-**
Bonds of foreign others	**1,300**	**101**	**2,007**	**3,408**
Shares of others	**-**	**-**	**4,048**	**4,048**
Total securities	**19,473**	**5,128**	**82,799**	**107,400**

* In addition, other assets in the amount of NIS 3,443 million are pledged.

** Includes surplus pledges.

Table G-4: Pledged and unpledged available assets* (continued)

	Fair value balance as at December 31, 2021			
	Pledged assets**	Assets serving as collateral for a central bank	Unpledged assets	Total
	NIS millions			
Cash and deposits with banks	863	-	188,420	189,283
Israeli government bonds	3,946	3,869	31,513	39,328
Foreign government bonds	1,112	-	20,333	21,445
Bonds of financial institutions in Israel	-	-	312	312
Bonds of foreign financial institutions	893	1,053	1,585	3,531
Bonds of others in Israel	-	-	-	-
Bonds of foreign others	703	64	2,072	2,839
Shares of others	-	-	3,650	3,650
Total securities	6,654	4,986	59,465	71,105

* In addition, other assets in the amount of NIS 4,142 million are pledged.
** Includes surplus pledges.

H. Operational risk

Operational risk is defined as the risk of loss that may be caused by failed or faulty internal processes, human actions, system malfunctions, or external events. The definition includes legal risk, but does not include strategic risk or reputational risk. Failures related to one of the aforesaid factors may cause damage to profitability. The Bank operates control units and/or procedures and systems in areas related to banking activity, including units for information systems security and cyber defense, business continuity management, security, the Chief Compliance Officer, management of human resources, process controls, and more.

H.1. Management of operational risks

Operational risk management strategy is aimed at supporting the achievement of the Group's strategic objectives and maximizing business value, while taking into consideration the costs in terms of risk, by all responsible parties at all levels of the organization. The managerial process is oriented towards execution based on the designation of risk ownership. The goal is for communication and rational treatment of operational risks to contribute to managerial decision-making, based on considerations of business value versus cost in terms of risk, both at the level of the management of the organization and at the level of the various units.

The goals of operational risk management are:

- To ensure effective supervision and management of operational risks in all units of the Group, including risk ownership and decision-making based on cost-benefit considerations.
- To ensure effective identification and communication of operational risks in all substantial business operations of the Group and the supporting units, with the aim of establishing operational risk appetite congruent with the approved strategic objectives of each unit in the Group.

- To establish an internal control structure promoting appropriate values of a culture of awareness, transparency, and efficiency with respect to operational risks within the Group.
- To optimally manage and allocate regulatory capital and economic capital for operational risks.

Responsibility for routine management of operational risk and for activities aimed at mitigating the risk lies with the division heads and the managers of subsidiaries in the Bank Group. These activities are overseen by the Operational Risk and Market Risk Management Unit in the Risk Management Division. Routine activity is conducted in the Bank's units and in the Group by a network of operational risk controllers, based on the matrix management principle; controllers report organizationally to division heads or CEOs of subsidiaries, and receive methodology guidance from the Operational Risk Management Department.

Operational risk management activity is supervised and directed by three forums: the Board of Directors' Committee on Risk Management and Control; the Board of Management Committee on Risk Management and Compliance; and the Subcommittee on Operational Risk Management.

The operational risk management policy was approved by the Board of Management and the Board of Directors of the Bank. The policy document serves as a framework for operational risk management within the Group, in accordance with uniform principles and reporting duties aimed at complying with the Basel 2 Sound Practices standards. The Bank's activity in this area is conducted according to the rules of Proper Conduct of Banking Business Directive 206, "Capital Measurement and Adequacy – Operational Risk," which refers, among other matters, to regulatory capital allocation in respect of operational risks, and Proper Conduct of Banking Business Directive 350, "Operational Risk Management," which is congruent with the updated guidelines in the Basel document of June 2011 on sound practice for operational risk management.

The Bank operates in accordance with the Basel 2 standardized approach and the corresponding requirements of the Proper Conduct of Banking Business Directives. The following projects and activities, among others, are underway as part of this plan:

- Collection of information regarding operational events in the Bank Group. A database for this purpose was established in late 2002, and is used, among other things, to analyze events, trends, and patterns and to support the mapping and assessment of operational risks to which the Group is exposed.
- Analysis of risk scenarios in activities and processes from a forward-looking perspective.
- Key risk indicators (KRIs) for operational risks have been specified, as part of the development of a monitoring and control infrastructure, with respect to products, processes, or institutional risks. A KRI is a metric that can be measured in quantitative terms, and may also include qualitative information indicating the presence of a particular factor or trend. Thresholds have been set for follow-up, escalation, and treatment, as relevant.
- Lessons-learned processes applied to operational events; relevant information shared among units; organizational learning.
- Quarterly reports are submitted to the Subcommittee on Operational Risk Management, the Board of Management Committee on Risk Management and Compliance, the Board of Directors' Committee on Risk Management and Control, and the plenum of the Board of Directors. The reports include updates on work plans, the status of projects in progress, information about operational events, assessments of potential risks, trends, changes in the risk profile, and comparative external information.

Additional related activities:

- An automated operational risk management system (PAMELA) has been implemented at the units of the Group. The system operates in the areas of collection of information regarding operational events, mapping and assessment of risks and controls, collection of KRIs (key risk indicators), action items, lessons learned, and reports.

- Formulation and implementation of a comprehensive framework of principles and standards for a uniform control concept within the Bank Group. Within this framework, control forums convene and a periodic process is conducted to evaluate the effectiveness of controls.
- Launches of new products and activities, in accordance with the defined policy for the launch of a new product in the Bank Group, are accompanied by examination and analysis of the relevant operational risks involved in the product or activity.
- Establishment of methodological infrastructure for operational risk management in material IT processes.
- Outsourcing of activities with due attention to the risks unique to outsourcing, in accordance with the guidelines of the dedicated policy on this matter.
- Special attention, including the formulation of a dedicated policy, has been devoted to the management of digital banking risks, in accordance with the guidelines in Proper Conduct of Banking Business Directive 367, "E-Banking."

Routine procedures are performed to identify, map, and assess operational risks and controls at the units of the Bank and the Group, including mapping of the risk of embezzlement and fraud. This activity is conducted based on a uniform methodology, in line with the requirements of the Basel Committee and the directives of the Bank of Israel on this matter, including monitoring of the implementation of the recommendations. A comprehensive mapping process of operational risks in all units of the Group is performed every three years. Subsequently, the findings are maintained, updated, and expanded through additional analyses, and risk analysis of new products and activities and of material contractual engagements for outsourcing of activities and processes.

The goal of this activity is to identify material risk centers, define risk ownership, assess risks (average and extreme), assess the existing controls, and differentiate low risks from material risks that require additional examination and action, based on cost-benefit considerations, according to the following main ways of coping with risks: minimization of the risk through the application of additional controls; transfer of the risk to a third party (e.g. insurance, outsourcing); absorption of the risk, with quantification thereof; and reduction of the activity that creates the risk.

The operational risk profile is monitored periodically in relation to the operational risk appetite established in the policy, using various parameters, at the level of the Group as a whole and at the level of specific units and processes. The Bank allocates capital in respect of operational risk assets, on the basis of a standardized model defined by the Bank of Israel. Reports on compliance with risk-appetite limits are submitted on a quarterly basis, within the consolidated risk document.

The Bank uses quantitative measures of operational risk appetite that refer to the following parameters: extent of operational damages relative to gross income, according to the Basel standardized approach; rate of increase in damages from year to year; risk scenarios rated at a very high risk level at the level of the Bank Group; and assessment of stress scenarios.

H.2. Information technology risks

The Bank is dependent upon IT systems and infrastructures for its various activities. Information-technology risk is the risk of damage to the proper activity of the Bank and to customer service, loss, or damage to reputation, due to inadequacy or failure of the IT systems and infrastructures of the Bank. In general, the Bank maintains its information systems and infrastructures, adopts new technologies, and continually acts to provide technological infrastructures in order to allow the operation of its business and the promotion of strategic initiatives at the various divisions, in accordance with the information-technology management policy of the Bank. Dedicated policy documents exist at the Bank addressing information and cyber security aspects, and principles for backup and recovery in cases of malfunction or disaster, as well as policy documents on outsourcing, cloud computing, rules for the realization of new technologies within digital banking, and the management of IT risks. In addition, in order to cope with the challenges of the future, simplify and improve the efficiency of technological platforms, improve response capabilities, and build new abilities, the Bank is implementing a multi-year plan to modernize its central IT systems.

IT risks are examined routinely, based on accepted methodologies, on the level of material IT processes conducted at the Bank as well as on the level of the information systems and infrastructures used by the Bank. Risks arising from material IT processes are addressed as part of the control approach implemented at the Information Technology Division, by several dedicated professional units reporting to the management of the division. These units act in accordance with the various regulatory guidelines, such as Proper Conduct of Banking Business Directives 357, 361, 362, 363, and 366. The units include the Information Systems Security and Cyber Defense Department, the Planning and Control Unit, the SM Process Management Unit, and the IT Risk Management Unit.

H.3. Information security and cyber risks

Cyber risk is the risk of damage, including disruption, interruption, shutdown of operations, theft of property, collection of intelligence, or damage to reputation or the confidence of the public, as a result of a cyber event. Cyber activity is conducted as required in the directives of the Bank of Israel, including Proper Conduct of Banking Business Directive 361, "Cyber Defense Management"; Proper Conduct of Banking Business Directive 363, "Supply Chain"; the Protection of Privacy Law, 1981; and other laws, as relevant, with the aim of protecting the information-technology system and minimizing risks. Information security and cyber risks at the Bank are managed by the Information Security and Cyber Defense Unit in the Information Technology Division.

The sophistication and severity of cyber attacks on the global financial sector have escalated in recent years. Technological development trends such as cloud computing, openness to external interfaces, and the expansion of digital services, on one hand, and the advanced tools available to attackers, on the other hand, have led to higher exposure to cyber risks. The banking sector in Israel, including the Bank, regularly experiences cyber attacks, such as DDoS (distributed denial of service – attacks designed to shut down a computer system by overloading its resources), phishing (attempts to steal sensitive information through impersonation on the Internet), etc. The attacks target government and financial sector institutions, in an attempt to damage their reputation, as well as targeting supply chains (attacks on organizations through a supplier or product that they use). The Bank acts continually to draw conclusions and update its preparations accordingly. No material cyber events with an effect on the financial statements were discovered at the Bank in 2022. An increase has occurred in recent months in fraud attempts in the form of social engineering, which the Bank is addressing on several levels – technology, educational activities, and more.

The Bank is investing extensive resources (both human and technological) in strengthening its information security and cyber defense system, in order to cope with the development of these threats. The Bank's defense framework consists of layers of protection using advanced technologies. The Bank operates cyber defense processes in order to minimize the risk of penetration, unauthorized access to information systems, and materialization of attacks, and to ensure the correctness, availability, and confidentiality of its databases. Concurrently, the Bank operates processes to discover and identify cyber events, at all times, including the operation of the Information Security Event Center. The Bank also prepares to contain cyber events and minimize the damage to the assets of the Bank and its customers. The Bank continually works to identify targets to defend, threats, risks, and the effectiveness of defenses, and to build work plans for improvement of the defensive framework accordingly. The Bank also maintains continual dialogue with the Israel National Cyber Directorate and other relevant parties.

The Bank routinely updates its risk assessment in view of insights from cyber events in Israel and worldwide relevant to the systems and business of the Bank. The Bank also accords high importance to maintaining an organizational culture of risk management, and therefore takes various actions (such as lectures, messaging, and exercises at various levels) to raise employee awareness of cyber risks. The Bank updates its cyber risk assessment in accordance with the development of threats and takes comprehensive action to reduce this risk, particularly in view of employees' significant use of remote work, cloud computing, and more.

The Cyber Risk Management Unit in the Risk Management Division establishes indices and methodologies for the evaluation of the maturity of defenses, analyzes the business implications of cyber scenarios, challenges the defense system, and examines developments in the area of cyber risk relevant to the technological and business systems of the Bank.

H.4. Cloud computing risks

The Bank operates in accordance with Proper Conduct of Banking Business Directive 362. The Bank continues to apply cloud computing in certain areas, and is examining additional uses, with appropriate attention to the derived operational risks, and in accordance with regulatory guidelines, with the aim of allowing realization of the business advantages of the use of cloud-computing services while prudently managing the risks and complying with regulatory requirements.

H.5. Emergency preparedness

The Bank maintains and implements a continuous plan for emergency preparedness and business continuity (BCMP – business continuity management plan), in accordance with the policy of the Bank and the Bank of Israel's Directive 355, "Business Continuity Management"; Directive 357, "Information Technology Management"; and additional expansions. The Bank's preparedness is based on detailed action plans, working procedures, and periodic tests and drills, defined in a system of emergency procedures. As part of its emergency preparedness, the Bank conducted a lateral process to establish policies, define reference scenarios, map and analyze critical processes and the resources required for the recovery of such processes during an emergency (BIA), and update its action plans based on the prevalent methodologies globally. This process is updated routinely, and presented for approval on an annual basis. The action plan involves all divisions of the Bank, through divisional business continuity officers and designated teams. The BCMP is led by the Business Continuity Management Department, which is the professional entity responsible for guidance, supervision, and presentation of status on behalf of the Bank to the Board of Management and Board of Directors. The department reports to the Head of Business Continuity of the Bank and to the Head of the Emergency Committee of the Bank (the Head of Finance). The activity plan involves all divisions of the Bank; each division head is responsible during routine times for all aspects of business continuity plans in that division, including construction, maintenance, and regular updates of the plan, and in emergencies, is responsible for operating the division while maintaining critical business processes. The Business Continuity Risk Management and Operational Resilience Unit in the Risk Management Division serves as a second line of defense in the area of business continuity risks and emergency preparedness.

The business continuity policy has also been adopted by the subsidiaries in Israel and globally, and at the Bank's overseas branches, in congruence with the corporate-governance policy and the guidelines of the Bank of Israel. In addition, the Bank holds periodic emergency drills covering complex operational, technological, and business scenarios, with the participation of the various units, from branches, units, and divisions to the Board of Management of the Bank. The Bank has a data center to ensure the availability and protection of its information systems and of the information itself. In addition, there is a secondary IT site as well as additional backups. The Israel Standards Institute has affirmed that the business continuity management system of the Bank complies with the requirements of the international standard ISO 22301.

As part of its preparedness for business continuity, the Bank is prepared to handle a range of possible scenarios. With respect to emergency scenarios that may cause the Bank to incur significant damage, red-alert systems are monitored and detailed contingency plans are in place. Stress scenarios are reviewed and discussed periodically by the Committee on Stress Scenarios and Risk Concentrations. The activation of a contingency plan is under the responsibility of the Board of Management or of the designated Board of Management committee responsible for the financial aspects of crisis situations; a charter for the establishment of such a committee is also part of the contingency plans.

H.6. Insurance

The Bank has a banking insurance policy to hedge operational risks, which includes: (1) banking insurance to cover damages that may arise from embezzlement by employees, loss of documents, forged documents, etc.; this policy includes coverage for damages due to computer crimes caused to the Bank and/or its customers as a result of penetration of the computer systems of the Bank by an unauthorized third party, (2) professional liability insurance, to protect against claims filed by customers regarding damage caused by negligent banking actions. These insurance policies are subject to exclusions common in insurance policies of banking corporations in Israel (including an exclusion of damage arising from violation of the directives related to money laundering and terrorism financing).

In addition, the insurance structure of the Bank also includes property insurance, third-party insurance, employers' liability insurance, directors' and officers' liability insurance, and additional insurance policies.

The liability limits in the policies were established by the Bank based on an assessment of the risk involved in the activity of the Group, as part of its overall risk-management policy. Within the fulfillment of the Sound Practice requirements under the Basel guidelines, cooperation and exchanges of information are maintained between the Operational Risk Management Department and the unit that handles banking insurance.

For details regarding the settlement agreement with the insurers in connection with the investigation of the Bank Group's business with American customers and the FIFA affair, see Note 25 to the Financial Statements.

I. Compliance risk

Compliance risk is the risk of imposition of a legal or regulatory sanction, material financial loss, or reputational damage which the banking corporation may suffer as a result of a failure to comply with the compliance directives, as defined in Proper Conduct of Banking Business Directive 308.

Pursuant to Proper Conduct of Banking Business Directive 308, compliance risk also includes risks related to the fairness of the Bank towards its customers, conflicts of interest, the prohibition of money laundering and financing of terrorism (including with respect to tax laws), provision of advice to customers, securities enforcement, protection of privacy (excluding information-technology aspects), the legislation in Israel for implementation of the FATCA and CRS directives, and taxation aspects relevant to products or services for customers, or directives of a similar nature.

Compliance risk also includes the risk of a breach of international sanctions and lists of designated parties. Addressing this risk involves monitoring, analyzing, and applying international sanctions and lists of designated parties, monitoring international money transfers, and monitoring the opening of customer accounts and banking activity therein. The Bank applies sanctions in accordance with the established policy.

Compliance risk also includes the reputational risk that accompanies failure to comply with such directives.

Compliance risk also encompasses risk related to the activity of the Bank with banks located in the Palestinian Authority, which requires the fulfillment of various regulatory requirements, in particular in connection with the prevention of money laundering and terrorism financing, and involves monitoring of fund transfers to and from residents of the Palestinian Authority.

The Bank terminated its activity with banks and branches located in the Gaza Strip at the beginning of 2009, after the government declared Gaza a hostile entity. Over the years, the Bank repeatedly notified the Bank of Israel and the Ministry of Finance that in view of the problems involved in the provision of banking services to Palestinian banks, the Bank wished to cease providing correspondent services to these banks.

In January 2018, the Bank received signed letters of immunity and indemnity from the Attorney General and the Ministry of Finance. The letter of immunity protects the Bank, its officers, and its employees from indictment in Israel for certain offenses related to money laundering and the prevention of terrorism financing in relation to services granted, or to be granted, by the Bank to Palestinian banks from March 28, 2016, to May 31, 2019 (the "Immunity and Indemnity Period"). Further to the letter of immunity, in January 2018, the Bank received a letter from the Supervisor of Banks in which she gave notice that no enforcement measures would be taken in all matters related to actions of the Bank in connection with the provision of correspondent services to which the letter of immunity applies.

In the letter of indemnity, the State of Israel made a commitment to indemnify the Bank, in an amount up to NIS 1.5 billion, for expenses (liability according to a verdict and legal expenses) borne by the Bank, within civil proceedings or criminal proceedings that do not end in a conviction, prosecuted against the Bank or an officer or employee thereof in connection with the provision of the correspondent services during the Immunity and Indemnity Period. The immunity and indemnity commitments granted to the Bank, as noted, are subject to reservations stated therein and to conditions that the Bank must fulfill.

In light of the request of the State to postpone the termination of correspondent services until the implementation of a long-term solution for the provision of correspondent services, through the establishment of a government company to provide Palestinian banks with these services, an updated letter of indemnity was issued on June 30, 2019. Pursuant to the updated letter of indemnity, the indemnity to which the State has committed towards the Bank, as detailed above, has been amended to an amount of up to NIS 1.5 billion in respect of each proceeding (not cumulatively). In July 2022, the Bank was provided with an updated letter of indemnity valid until March 31, 2023. The letter of immunity was also extended until March 31, 2023. In January 2023, the Ministry of Finance gave notice that the government company established to provide correspondent services would not begin to operate until 2024, and that the State intended to extend the letter of indemnity and immunity for the Bank accordingly.

The Bank applies a policy of compliance with all legal and regulatory directives, and works to instill this policy at its units and among its employees. For the purposes of risk management, the key compliance risks against which the Bank seeks to defend itself can be described as the following:

- The risk of material damage arising from a regulatory order of any government agency due to noncompliance of the Bank, or of any of its employees, with directives concerning the prohibition of money laundering and terrorism financing, or deficiencies in processes designed to ensure such compliance, or the absence of such processes;
- The risk of material damage arising from a regulatory order of a regulatory agency due to improper, unfair, irresponsible, or unethical activity of the Bank or of any of its employees in relation to customers of the Bank or with regard to tax issues, or noncompliance with legal directives in these contexts;
- The risk of material damage arising from a regulatory order of a regulatory agency due to noncompliance of the Bank or of any of its employees with securities laws;
- The risk of material damage arising from a class-action suit due to noncompliance with directives that regulate the bank-customer relationship;
- The risk of material damage arising from claims or regulatory orders due to inappropriate, irresponsible, unethical, or unworthy conduct of any of the employees of the Bank;
- The risk of a criminal suit against the Bank or against its senior executives due to noncompliance with the law;

- The risk of material damage due to noncompliance with or breach of the agreements of the Bank with the United States authorities of April 30, 2020, which include additional designated actions and commitments in this area, as detailed in Notes 25D and 25E concerning contingent liabilities and special commitments and on the website of the Bank.

Risk indicators are used, among other means, to identify key areas of compliance risk and to monitor their development. The key risk areas and the intensity of the risks arising from these areas may change in accordance with changes in regulation, enforcement, the activity of the Bank and of its customers, market developments, etc. The Bank uses quantitative and qualitative indicators to measure this risk. These include developments in regulation and enforcement, changes in customers and in certain products, findings of controls and audits, gap surveys, and more.

The Chief Compliance Officer of the Bank serves in this position, pursuant to Proper Conduct of Banking Business Directive 308, among other matters, as the officer responsible for the duties set forth in the Prohibition of Money Laundering and Prevention of Terrorism Financing Law; as the supervisor of securities enforcement, pursuant to the Law for More Efficient Enforcement Procedures at the Israel Securities Authority; and as the responsible officer pursuant to FATCA and QI. The Chief Compliance Officer and Securities Enforcement Unit consists of the Anti-Money Laundering and Terrorism Financing Unit; the Securities Enforcement Unit; the International Compliance Unit; the Customer Relations, Consumer Protection Directives, and Subsidiaries Unit; the International Taxation Compliance Unit; the Privacy Protection, Competition, and Prevention of Discrimination, Bribery, and Corruption Unit; the Hetz Center Expert Unit; and the Coordination and Monitoring Unit.

The mission of the Chief Compliance Officer Unit is to support the achievement of the Group's strategic and business objectives, while minimizing exposure to compliance and reputational risks. The objectives of the Chief Compliance Officer Unit are:

- To lead a policy of full implementation of legislation at all units of the Bank, in Israel and worldwide, with an understanding of the needs of the business units and support for their activity;
- To use a risk-based approach to identify, document, and actively assess compliance risks inherent in the business operations of the Bank;
- To monitor and examine compliance in the Bank Group through sample testing, and to report the findings to the organs of the Bank.

The responsibility for routine management of the compliance aspects of risk at the Bank and for the execution of activities aimed at minimizing this risk lies with the division heads and the managers of subsidiaries in the Bank Group. Professional responsibility in this field, as a second line of defense, rests with the Chief Compliance Officer Unit in the Risk Management Division. Routine activity is conducted at the Bank's units and in the Group by a network of compliance officers, based on the matrix management principle, with organizational subordination to division heads or CEOs of subsidiaries and professional subordination to the Chief Compliance Officer Unit.

The activity of the Chief Compliance Officer and Securities Enforcement Unit is supervised within corporate governance, through:

- The Board of Directors' Committee on Risk Management and Control;
- The Board of Management of the Bank, headed by the CEO;
- Quarterly reports to senior management and to the Board of Directors on compliance issues.

The compliance policy of the Group sets rules regarding all of the component areas of the compliance issues described above. This policy includes rules regarding corporate governance and the interaction with subsidiaries and branches outside Israel, and is based on legislation and regulation in Israel and in the relevant locations. The Bank Group has established infrastructure to oversee the disclosure requirements with respect to individuals and corporations in the context of FATCA, and is continuing the process of automating the requirements arising from this legislation and from the Israeli regulation in this area. Similarly, the Bank Group is establishing infrastructure to address disclosure requirements with respect to individuals and corporations in the area of CRS. Israeli law requires financial institutions in Israel to report financial accounts of customers with foreign tax residency, within the CRS information exchange treaty signed by Israel. The Bank has also established an overall policy of declared funds, including with regard to foreign-resident customers, aimed at reducing exposure to the presence of unreported funds in the accounts of foreign residents throughout the Bank Group.

J. Legal risk

Legal risk comprises, among other matters, legal claims, rulings, inability to enforce contracts, and exposure to fines, penalties, or enforcement measures as a result of supervisory actions and private settlements that may disrupt or adversely affect the activity of the Bank Group. The Group is assisted by internal and external legal counsel in order to contend with this risk.

The Bank takes a broad approach to legal risks, such that these risks encompass risks arising from primary and secondary legislation and regulatory directives, including risks arising from a lack of knowledge regarding the directives of local or foreign law applicable to the activity of the Bank or of the Group, or misinterpretation thereof; rulings of courts, tribunals, and other entities with quasi-judicial authority; actions that are not backed by legal counsel; flawed legal counsel; and risks arising from legal proceedings.

Legal risk is managed in accordance with the legal risk exposure management policy document, which is updated and applied on the level of the Group.

Each quarter, legal counsel submits various periodic reports to the Board of Management and Board of Directors regarding legal risks, including statistical information with regard to the various types of legal proceedings opened or concluded during the relevant period.

For additional information regarding legal risk, see Note 25 to the Financial Statements.

K. Reputational risk

Reputational risk is defined as present or future risk of damage to income or capital as a result of a negative image in the eyes of relevant stakeholders, such as customers, parties to transactions, shareholders, investors, or regulatory agencies. This risk, which usually accompanies other activities and other risks, may materialize in various ways, such as loss of customers, new regulation, and more.

The reputational risk management policy of the Bank Group has been approved by the Board of Management and the Board of Directors, and is implemented by the units of the Group.

The reputational risk management strategy of the Bank Group states that reputational risks should be prevented, minimized, and controlled. Accordingly, group-wide goals have been set with respect to reputational risk – specifically, ensuring effective supervision and management of reputational risk and establishing a framework of internal control. The Marketing and Advertising Administration is the overseeing function in the first line of defense, and the Risk Management Division is the second line of defense in this area, with the aim of promoting a culture and values of awareness, transparency, and efficiency in addressing reputational risks.

The framework for the management of reputational risk includes, among other matters, mapping, monitoring, and addressing material risk centers by the Reputational Risk Committee, which convenes periodically; KRI monitoring; reputational risk surveys; and an annual dedicated discussion. The Board of Directors and the Board of Management are responsible for promoting high standards of ethics and integrity and for establishing a culture that emphasizes the importance of internal controls.

L. Regulatory risk

Regulatory risk refers to regulatory directives that are not yet in effect, and is reflected in two main aspects:

- Lack of preparation for the implementation of a directive, or partial preparation for the implementation of a binding regulatory directive.
- A heavier regulatory burden that may impair the ability of the Bank to meet its obligations, realize and maximize its business objectives, or offer and deliver certain banking services, and/or may require preparation for complex and lengthy implementation and resource-intensive technological and other investments involving significant costs.

Regulation and supervision of the activity of the banking corporation

The Bank operates within a complex regulatory environment, characterized by frequent changes and uncertainty. The Banking Ordinance, the various banking laws, and the Proper Conduct of Banking Business Directives issued from time to time by the Banking Supervision Department constitute the central legal foundation for the Bank Group's activity. Among other matters, they specify the regulatory requirements applicable to the activity of the Bank and to the subsidiaries and affiliates of the Bank Group.

The activity of the Bank is also subject to regulatory requirements of additional regulators in specific areas of activity, such as the Israel Securities Authority; the Capital Market, Insurance, and Savings Authority; the Privacy Protection Authority; the Money Laundering Prohibition Authority; the Competition Authority; etc.

The Bank and its subsidiaries operate and manage ordered, dedicated work processes to map and identify all regulatory amendments that are expected to apply to them, and to adapt their operations to all relevant laws.

Regulatory risk management methods

The Regulation Unit assesses and manages regulatory risks by monitoring, identifying, collecting information, assessing, reporting, conducting follow-ups, and applying controls with respect to regulatory developments, as they emerge. The unit serves as the liaison between the internal units of the Bank and the regulator during the formulation of legislation, with the aim of giving voice to and reflecting the opinion of the relevant professionals, prior to the formulation of the regulatory directive. The unit also supplies opinions, as relevant, with regard to the effect of forthcoming regulation on the expected business conduct of the various units of the Bank. The unit operates in full cooperation with the relevant professional units of the Bank, and with the subsidiaries and offices in Israel and overseas, in order to ensure that all regulatory requirements are implemented fully and optimally. With regard to compliance with regulatory directives from the inception of the regulation, see the section "Compliance risk," above.

The Regulation Unit also conducts procedures to routinely monitor significant amendments of international regulation in areas that may affect the activity of the Bank in Israel, and to examine the need for the Bank, its subsidiaries, and/or its overseas offices to implement such amendments.

For details regarding material regulatory initiatives with an effect on the activity of the Bank during the reported period, see the Corporate Governance Report.

M. Economic risk

Risk factors in the economic environment are identified by the Economics Department, which tracks current economic and financial data in Israel and worldwide and professionally evaluates the implications of the data. The department maps potential risks in the economy and in the financial markets, and reports to the relevant teams and committees.

Concurrently, the department prepares a set of stress scenarios with a possible but low probability of future materialization, which in its opinion may have significant economic and financial consequences for the economy and for the Bank. The stress scenarios are updated annually, according to the risk map, and approved by the authorized parties, in accordance with procedures. The Economics Department also examines a series of warning indicators that may signal an increase in the probability of a stress scenario. Warning indicators are reported routinely to the Board of Management Committee on Risk Management.

The Bank translates the market conditions in the scenarios into the impact on its business activity, according to the various risk areas, and examines the effect on its profitability, capital, and capital adequacy, while monitoring risks and segments that may be affected by economic changes in Israel and worldwide, and adapting its policies and control activities as necessary. Among other factors, the Bank examines the securities in its investment portfolio in Israel and overseas, its exposure to foreign financial institutions, and risk centers in the credit portfolio that may be influenced by such developments, and routinely complies with the liquidity requirements, as required by the supervisory directives.

For details regarding conditions in the Israeli and global economy, see the section "Economic and financial review" in the Report of the Board of Directors and Board of Management.

N. Strategic risk

Strategic risk is the risk of material present and/or future change in profits, capital, reputation, status, and/or other material aspects as a result of a combination of one or more of the following factors: changes in the business environment; faulty business decisions; strategy and strategic goals unaligned with the organization and the environment in which it operates; improper implementation of strategy; failure to respond to changes in the industry, economy, or technology; and other factors that generate this risk.

Strategic risk is a function of the congruence (or non-congruence) of the organization's strategic goals with the environment in which it operates, the adaptation of the business plans developed to achieve these goals, resource allocation, and quality of implementation. As such, this risk constitutes forward-looking information.

The strategic plan of the Bank is a multi-annual plan approved by the Board of Management and the Board of Directors, and examined and adjusted annually to changes in the business environment in Israel and globally, changes in the Bank's competitive environment, and changes in the Bank's objectives. The strategic plan was updated in 2022, with the assistance of a leading international consulting firm; the Bank is acting to implement the plan.

The process of formulating the strategic plan encompasses a general examination of the corporation's business and the relevant strategic risks, and a comprehensive planning process. Within the annual planning process, the Board of Management of the Bank examines the future competitive landscape, and builds strategic plans accordingly, in order to respond by preparing as necessary for this future.

The annual strategic planning process consists of three main stages, each of which addresses a different aspect of strategic risk management and assessment:

Stage 1 – Identification of the strategic risks to the Bank in its competitive environment. Examination of the factors influencing the Bank's competitive ability and future growth potential, including an examination of global and local trends and the current situation at the Bank. In this stage, according to the findings, the Board of Management and the Board of Directors establish the key strategic objectives as well as additional emphases to be addressed during the preparation of the strategic plans.

Stage 2 – Formulation and approval of the strategic plan. The Bank formulates all of its strategic plans in accordance with the strategic emphases established, synchronized with the financial objectives, taking risk aspects into consideration. The activity is challenged by the Risk Management Division.

Stage 3 – Implementation of strategic planning. The strategy of the Bank is embedded in the strategic map of the BSC (Balanced Score Card) methodology. The strategic emphases and plans of the Bank are reflected in the BSC map. The BSC map consists of measurable metrics and targets derived from the strategic goals, designed to motivate the behavior and performance of the various units, and used to monitor the implementation of the strategic plan and track strategic risk. Significant deviation from the objectives established in the BSC map may be an indication of partial implementation of the strategic plan, and therefore raises concern over an increase in strategic risk.

O. Environmental risk

Environmental risks

Based on the definitions of the Network for Greening the Financial System (NGFS) and the respective definitions of the Banking Supervision Department at the Bank of Israel, the term environmental risks refers to risks that derive from the exposure of a financial institution and/or the financial sector to activities that have the potential to cause environmental degradation, such as air and water pollution, ground pollution, loss of biodiversity, deforestation, and loss of ecosystems, or to be affected by such harm.

- Environmental risks may have financial and non-financial impacts on banking corporations, and may take a form linked to the various other risks which the banking corporations manage routinely, such as credit risk. Such risks may be realized in various ways; for example, if the Bank bears direct responsibility for an environmental hazard, including the possibility that the Bank may be required to remove an environmental hazard, or may be liable to a third party in respect of an environmental hazard. This risk may also materialize indirectly, as a result of deterioration of the financial condition of a borrower or an investment due to environmental costs arising from compliance with directives related to the protection of the environment, or damages due to the breach of such directives. Reputational risk may also materialize as a result of the attribution to the Bank of a direct or indirect connection with the cause of an environmental hazard in the course of its business operations.
- Environmental risk management is part of the management of overall credit and investment risks at the Bank. In line with the letter of the Supervisor of Banks of 2009 concerning environmental risks, and in order to address the effect of environmental risk on the credit risk of large corporate borrowers and on investment risk in large investments, the Bank has established a framework to identify, specify, and manage environmental risks. The methodology for the identification of environmental risks includes, among other things, mapping of potential environmental risk by economic sector. In addition, environmental risk aspects are analyzed and addressed at the level of the individual borrower or investment in the course of review and approval processes for large credit applications or investment requests in sectors identified as exposed to heightened environmental risk, such as mining and quarrying, industry, energy production, sewage services, waste treatment and purification, and other sectors, as well as within the routine management of the risk.
- Alongside the management of exposure to environmental risk in its credit and investment activity, the Bank has formulated a comprehensive, ordered environmental policy in connection with its operational activities. In addition, as part of the process of managing and assessing its environmental conduct, the Bank has received certification under the ISO 14001 standard, which is revalidated annually, in a comprehensive review by a licensed international firm. An extensive description of activities in connection with the environment is presented in the Bank's ESG Report, published annually in accordance with the most advanced GRI standard.
- The Bank, or any senior officer of the Bank, were not a party, during the reported period, to any material legal or administrative proceedings related to the protection of the environment.

Climate risks

The climate crisis is occupying an ever-growing position on the global agenda. Climate change creates harmful effects and risks referred to as climate risks. While there is some connection and overlap between climate risks and environmental risks in the classic sense referred to above, they are not identical.

- According to the NGFS, and subsequently the Banking Supervision Department in Israel, climate risks for a financial institution are risks arising from its exposure to risks caused by or related to climate change:
  - Physical risks – Risks resulting from acute climate events (extreme events), such as floods, storms, heat/cold waves, and wildfires, and/or chronic processes with gradual development over time, such as rising temperatures, decreasing precipitation and desertification, rising sea levels, and others.
  - Transition risks – Risks that arise due to disruptions caused in the process of transforming and adapting the global economy as required, according to scientific consensus and the Paris Agreement of 2016, to fight the sources of climate change, from an economy based on carbon dioxide and other greenhouse-gas emission intensive activities to a low/zero emissions economy. Factors driving this process are changes in regulation, legislation, and government policies; technological changes; market changes and changes in consumer preferences; changes in the area of litigation; and more.
- Climate risks may be reflected in the various traditional financial risks accompanying the routine operations of the Bank, such as credit risk, market risk, operational risk, liquidity risk, and other risks, through various micro- and macroeconomic transmission channels, which may have an adverse effect on the financial robustness of businesses, households, and the economy in general, as well as other risks to the Bank such as reputational risk, regulatory risk, legal risk, and more. Climate risk is considered a complex and evolving field, in that it comprises, among other matters, systemic risk on a broad, unprecedented global scale; the period in which it may materialize is far longer than the usual business planning time horizon for banks; and it is characterized by material uncertainty.
- Supervisory authorities and central bank regulators worldwide see climate risks as one of the key topics on the agenda, with the potential to generate micro- and macroprudential consequences in certain future scenarios, and are acting in this area by, among other matters, issuing supervisory requirements and expectations in connection with climate risk management and disclosure, with reference to the principles of the TFCD;[(1)] conducting scenario analysis exercises and stress tests; and more. Concurrently, climate risk management frameworks at banks worldwide have emerged and developed over recent years, and have come to be a key issue.
- In Israel, in August 2022, the Bank of Israel issued an update of the Public Disclosure Directives concerning ESG (environmental, social, and governance) aspects reflecting a requirement to provide more extensive treatment of environmental and climate aspects, as well as quantitative disclosure of metrics and targets used by the corporation to manage risks and opportunities in this context. In December 2022, the Bank of Israel issued a first draft of a Proper Conduct of Banking Business Directive on the topic, "Principles for Effective Management of Climate-Related Financial Risks," which effectively adopts the document of principles issued by the BCBS (Basel Committee on Banking Supervision) in June 2022.

(1) TCFD – Taskforce on Climate-related Financial Disclosure.

- The Bank recognizes the importance and centrality of the issue of climate change and the potential negative ramifications it may have for the Bank, in terms of exposure to financial and other risks, and closely monitors the developments in banking regulation and practice in this area. Beginning in the first quarter of 2021, the Bank has included environmental risk, with an emphasis on climate risk, in its list of emerging risks; however, at this stage, in relation to the other risks to which the Bank is exposed, it is not classified as material. See the section "Top and emerging risks," above. At this stage, it is too early to estimate the potential long-term effect of climate risks on the Bank. With regard to risks in the short term, the initial assessment of the Bank is that it does not have material financial exposures derived from the materialization of physical risks or transition risks, and that its principal exposure in this range is concentrated in the area of reputational risk incidental to its exposure to transition risk in the corporate credit portfolio.
- In 2021, within steps taken to organize, the Bank built an annual and multi-annual work plan to create a comprehensive climate risk management framework, based on a cross-risk perspective, across lines of defense, and began its gradual implementation. In 2022, the Bank continued to develop its capabilities and build and impart knowledge throughout the organization, as described below. In 2023, the Bank intends to consider and carry out adjustments of its plans for building a climate risk management framework, following the expected publication of the directives of the Bank of Israel on this matter.
- In terms of corporate governance, in 2022, a dedicated full-time professional function was established at the Bank in the area of climate and environmental risks. This function is a specialist professional unit responsible for embedding climate risks, as drivers of traditional risks to which the Bank is exposed in its operational and business activities, in the risk-management framework across the existing lines of defense, alongside an inter-division steering committee.
- In terms of the identification and assessment of exposure to climate risks, the Bank is currently operating based on the estimate that in the financial planning time horizon (1-3 years), the exposure is primarily in the context of the credit portfolio, specifically to transition risk. Although Israel is located in a climate hotspot, the Bank has had very limited experience up to this point with vulnerability to acute physical risks; moreover, this risk may materialize without warning. With respect to chronic physical risks, the approach is that the range for materialization of these risks is longer, rather than imminent. In this context, the Bank is already working to also develop identification and assessment capabilities with respect to physical risks.
- In connection with the assessment of transition risk in the corporate credit portfolio, the Bank performed a process according to economic sector level categories to identify and classify focus areas of economic activity exposed to heightened inherent transition risk, due to potential disruptions of their business model and consequent impacts on their financial robustness resulting from the process of transition to a low/zero carbon emissions economy. This process was based on benchmark research, adapted to the specific characteristics of the Bank's activities. The areas identified are characterized by greenhouse-gas emissions intensity across the value chain of the product/service, and account for a material proportion of the global sources of these emissions. For each area of activity identified, transition risk factors were individually analyzed in depth, using the prevalent segmentations – policy/regulation, technology, market and consumer preferences, and litigation/other. The following table presents economic sectors classified in the heat map as having heightened inherent financial exposure to transition risks as a percentage of total credit risk balances at the Bank (stand-alone).

Table O-1: Credit risk in economic sectors with heightened inherent transition to a low/zero carbon emissions economy risk – Bank[1][2]

	Fossil fuel sector[3]	Electricity and gas supply[4]	Transportation and shipping[5]	Chemical industries, rubber and plastic, cement, and steel[6]	Total credit risk in economic sectors with heightened transition risk
	Percentage of total credit risk in and outside Israel				
December 31, 2022	**1.06%**	**1.12%**	**3.07%**	**1.07%**	**6.32%**
December 31, 2021	1.00%	1.15%	3.33%	1.36%	6.84%

(1) Balance sheet and off-balance sheet credit risk, as defined in the table "Credit risk by economic sector" in the section "Credit risk," above.
(2) The data are based on the classification of customers into economic sectors at the Bank. This classification does not unequivocally identify areas with relevance to the conceptual field of climate risk, or transition risk specifically. Thus, for example, the activity of companies in the area of cement, steel, electric vehicles, or electricity production based on renewable energies is not specifically identified in the economic sectors. The data presented are therefore skewed upward to a certain extent. The heat map is the basis for relatively simple and quick identification of risk centers. However, the heat map and the data presented above do not reflect a risk assessment with respect to specific borrowers or investments, which may be higher or lower than the assessment at the level of the sector, depending on the specific adaptation measures undertaken by each borrower or investment. The Bank does not expect risk in the focus areas of heightened transition risk exposure to materialize in the immediate term to a material extent, and does not believe that the materialization of this risk, if it occurs, would occur simultaneously across sectors.
(3) The value chain of the fossil fuel sector (coal, oil, and natural gas): the economic sectors of crude oil and natural gas production (including building infrastructures), coal mining and production (negligible exposure), refined fuel and crude oil product industries, and retail fuel sales.
(4) The economic sector of supply of electricity, gas, steam, and air conditioning (including building of infrastructures), excluding financing in the area of renewable energies.
(5) The economic sectors of land transport, air transport, marine transport; vehicle sales, maintenance, and repair; operating leases and rental of vehicles; and bus, taxi, train, and cable-car services.
(6) The economic sectors of the chemicals and chemical products industry, rubber and plastic products industry, basic metals industry, and other types of mining and quarrying.

- Based on the heat map, initial foundations were formulated for the credit and investment policy of the Bank in connection with transition risk management, referring, at this stage, to the sectors most exposed to these risks, first and foremost the fossil fuel sector. Within this process, among other matters, the Bank made the decision not to finance or invest in new coal and oil exploration and production projects. A decision was also made to gradually reduce holdings in the nostro portfolio of the Bank in companies engaged in coal and oil activities, to zero by the end of 2026.
- Going forward, the heat map is also expected to serve as the basis for the identification and assessment of financial aspects of climate risk in the process of analyzing material credit applications at the level of the specific borrower in sectors identified as transition risk foci, taking into consideration not only the inherent exposure of the borrower to transition risk but also the borrower's preparation for and management of the risk.

- Another key tool in the assessment of climate risks is scenario analysis and stress testing applied over time ranges far exceeding the usual planning periods for banks, in order to estimate the potential long-term impact of climate risks on the Bank, with an emphasis on strategic implications, under a variety of scenarios. Further to the notification of the Bank of Israel, the Bank is preparing to run a uniform regulatory climate scenario in 2023-2024. In 2022, the Bank carried out a comprehensive benchmark review in this area, referring to the experience accumulated globally in this field up to this point. In the area of building relevant data infrastructures, with an emphasis on physical risk, the Bank made progress in its ability to find, present, and analyze spatial information regarding geographical locations with regard to real-estate collateral in housing credit and credit for construction and real estate, and is continuing to build these capabilities.
- In recognition of the importance of knowledge building in the unique field of climate risks throughout the Bank, in 2022 the Bank continued to structure its knowledge, in the business units and units in the second line of defense, with an emphasis on credit risk. Training dedicated to climate risk as a financial risk for the Bank was held for all CRMs in the Corporate Area and Commercial Area at the Bank, and for all credit analysts in the first and second lines of defense.
- As part of the business continuity management system of the Bank with reference to physical climate risks, the Bank integrated reference to and preparation for extreme weather into its framework of reference scenarios, addressing the aspects of flooding and fires, based on the estimate that such events may have a material impact on the functioning of the Bank, primarily in the regions of Jerusalem, Gush Dan, and the Coastal Plain.
- In 2023, the Bank plans to prepare for the continued development of its climate risk management framework, within its management of traditional risks, as noted, while continuing to closely monitor developments in banking regulation and practice in this area, in and outside Israel. In particular, with respect to regulation, the Bank plans to prepare for the implementation of a Proper Conduct of Banking Business Directive concerning climate risks, and for the application of a uniform systemic scenario led by the Bank of Israel.
- Climate risk management is an important element of the ESG strategy of the Bank for the support of decarbonization. The Bank has established goals for 2030 regarding aspects of the promotion of a green environment and coping with climate change. For key ESG metrics and goals for 2030, including climate and environmental goals, see the section "Key environmental, social, and governance (ESG) indicators" in the Report of the Board of Directors and Board of Management.

P. Model risk

Model risk is the risk of adverse consequences, which may take the form of monetary loss or non-financial impacts (incorrect business and/or strategic decisions, damage to the firm's reputation, etc.), resulting from decisions based on incorrect or inappropriate use of model outputs. The sources of this risk are possible deficiencies in input data, development methodology, technological implementation, and business use.

The model risk of the Group is managed by a dedicated, independent risk management unit, which serves as the second line of defense for this risk. The Group policy on model risk, development, and model validation has been approved by the Board of Management and Board of Directors of the Bank. The Group policy establishes principles for the management of model risk. Model risk management encompasses independent validation, monitoring of risk-mitigation activities conducted by the various units, specification of roles, definition of risk appetite, and assessment of aggregate risk. Pursuant to the directive of the Bank of Israel of 2011, all models in use at the Bank require independent validation.

In light of the increase in uncertainty in the markets caused by macroeconomic changes, such as the increase in inflation and interest rates relative to preceding years, the potential risk arising from the use of models has grown, and model risk monitoring has therefore been increased with respect to the relevant models, with the aim of identifying weaknesses and mitigating risk in the models. In addition, the coronavirus crisis of 2020-2021 is expected to have a long-term effect on the manner and extent of future development of history-based models, such as models in the area of credit.

The developments in data and models in the banking industry and the growing use of models as part of the work plans of the Bank are expected to contribute to the increase in model risk, and pose challenges in the area of model risk management and new model development. The work plan of the Group reflects ways of addressing these challenges.

Q. Remuneration disclosure

For details regarding remuneration for senior officers of the Bank, in accordance with Regulation 21 of the Securities Regulations (Periodic and Immediate Reports), 1970, see the section on corporate governance, audit, and additional information regarding the Bank's business and the management thereof in the Annual Report of the Bank for 2021.

Q.1. Entities supervising remuneration

The entities supervising remuneration are the Board of Directors of the Bank, including through the Remuneration Committee of the Board of Directors. The Remuneration Committee consisted of four members in 2022, of which three external directors pursuant to the directives of the Companies Law, 1999 (the "Companies Law"), and one external director pursuant to Proper Conduct of Banking Business Directive 301. In January 2023, another non-external director joined the Remuneration Committee. The chairperson of the committee is an external director pursuant to the directives of the Companies Law. The powers of the Remuneration Committee are those granted to it in accordance with the applicable law – inter alia, in accordance with the directives of the Companies Law and the directives of the Supervisor of Banks (Proper Conduct of Banking Business Directive 301 and Proper Conduct of Banking Business Directive 301A), and as defined in the procedures of the Bank. The Remuneration Committee supervises the implementation of the remuneration policy and of the remuneration plans, and for that purpose is assisted by the risk management, control, and audit functions of the Bank. The Remuneration Committee, with the assistance of the risk management, control, and audit functions of the Bank, as necessary, has designed and designs the means of control to ensure that the principles of the remuneration policy are maintained, in such a manner as to ensure on a regular basis that the actual remuneration of the officers, the risk and performance indicators, and the results thereof are consistent with the chosen remuneration mechanisms and with the policy objectives.

The committee is also assisted in its work by external economic and legal advisors who advise the committee with respect to the remuneration policy and remuneration plans in accordance with applicable laws, and in connection with information required by the committee in order to make informed decisions, remuneration approval processes at the Bank, and various controls, all as required by the applicable laws.

The remuneration policy of the Bank contains a chapter addressing the Bank Group, which applies similar principles to those of the Bank's remuneration policy to selected subsidiaries of the Bank in Israel; with respect to the overseas subsidiaries and overseas branches of the Bank, there are certain adjustments which apply, in order to adjust the remuneration to the laws that apply in the relevant country and to the terms of the labor market there.

The key employees of the Bank (as defined in Directive 301A) include the senior officers, including the CEO of the Bank; the members of the Board of Management of the Bank; other executives who report directly to the CEO of the Bank; a group of employees under executive personal contracts who report to members of the Board of Management and who are not officers; several employees in the nostro units and dealing room who are not officers or senior executives; recipients of remuneration greater than NIS 1.5 million; and additional executives (not under senior contracts) with a material impact on the risk profile of the Bank.

Q.2. Planning and structure of remuneration processes

On October 22, 2020, the general meeting of shareholders of the Bank approved the remuneration policy of the Bank for officers, in effect for three years, beginning in 2021 (after the period of validity of the previous remuneration policy of the Bank ended at the end of 2020). The remuneration policy is consistent with the Financial Corporations Officer Remuneration Law (Special Approval and Non-Deduction of Expenses for Tax Purposes due to Exceptional Remuneration), 2016 (hereinafter: the "Remuneration Limit Law") and the ceiling established therein (hereinafter: the "Remuneration Ceiling"); the Companies Law; and the Banking Corporation Remuneration Policy Directive. On September 13, 2020, the Bank adopted a comprehensive remuneration policy for its senior executives, and on later dates it also adopted a policy for its employees who are not officers (all parts of the remuneration policy for all populations shall hereinafter be referred to, jointly, as the "2021 Remuneration Policy"), as well as a remuneration plan consistent with this policy (hereinafter: the "2021 Plan"), which have been updated from time to time.

The main characteristics and objectives of the policy are described below, including a reference to the way in which the Bank ensures that employees engaged in risk management and compliance are remunerated without dependence upon the business under their supervision, pursuant to the remuneration policy in effect as of 2021.

General information – The Bank aspires to remunerate officers and executives for their work and contribution to the Bank, and to retain them over the long term, while creating appropriate incentives and linking their best interests with the best interests of the Bank and of its stakeholders, in alignment with the goals of the Bank, its work plans, and its policies, from a long-term perspective. The remuneration policy is consistent with the Bank's strategy, work plans, and risk appetite. Its purpose is to lead to maximization of the Bank's value, while emphasizing the Bank's stability and the interchange between achieving returns and taking risks.

The main goals of the remuneration policy are:

- To motivate officers to act to create long-term economic value for the Bank and its stakeholders, in a manner that strengthens the connection between remuneration and the creation of value for the stakeholders of the Bank.
- To adjust the total remuneration to the risk appetite of the Bank.

- To maintain the Bank's competitiveness in recruiting and retaining high-quality personnel for senior executive positions; the remuneration amounts shall be proportionate and shall take into consideration the terms of the market, the structure of remuneration at the Bank, and the regulatory restrictions on remuneration.
- Officers' remuneration shall include a component reflecting attainment of the general objectives of the Bank with respect to risk management and compliance with laws and with the procedures of the Bank.
- To promote a remuneration structure that considers the effect of disparities in remuneration between different ranks at the Bank on labor relations at the Bank, and supports the preservation of sound labor relations.
- To adjust remuneration to the type of officers' activities and responsibilities, and to their skills.

Q.3. Inclusion of existing and future risks in the remuneration process

The annual and multi-annual work plans are constructed, among other matters, with reference to the volume and types of the risks that the Bank is willing to undertake. Pursuant to the remuneration policy in effect as of 2021, achievement of the objectives of the work plan along with the achievement of a return of equity greater than the minimum return on equity established by the Board of Directors for the relevant year set the threshold for the inception of the bonus plan. The Bank achieved the minimum return on equity established for 2022, in accordance with the 2021 Remuneration Policy and the 2021 Plan. The inclusion of risks in the remuneration process is also achieved through a ceiling on variable remuneration, and through postponement of the payment of part of the annual bonus, in certain cases, which is contingent on the Bank's performance in future years, so that executives are exposed to the consequences of materialization of the risks taken, and their remuneration decreases if or when the risks materialize in the future, beyond the risk indicators that are part of the performance metrics for all relevant executives.

Risk management, control, and audit functions at the Bank assisted the Board of Directors of the Bank and the Remuneration Committee of the Board of Directors in ensuring that risk indicators and performance indicators used in the remuneration mechanisms of the officers are consistent with the objectives of the remuneration policy, the objectives of the Bank, and its risk appetite.

The principal risks taken into consideration by the Bank in applying remuneration indicators include credit risks, market and liquidity risks, operational risks, compliance risks, reputational risks, strategic risks, and other risks.

Q.4. The process of building individual KPIs

Individual KPIs for 2022 include business metrics derived from the work plans of the Bank in various areas, including financial indicators such as profit and the C/I ratio, indicators of customer recommendations of the Bank, employee connectedness indicators, and risk-management indicators relevant to the position holder, in addition to evaluation by a manager. The structure of performance indicators for business positions is different from those established for positions in the areas of supervision and control, in accordance with regulatory directives.

Q.5. Adjustment of remuneration to long-term performance

In general, pursuant to the 2021 Remuneration Policy, variable remuneration consists, among other components, of an annual bonus contingent upon the financial performance of the Bank, based on return on equity, and shall also be determined according to the attainment of measurable quantitative and qualitative individual key performance indicators.

Under the circumstances established in Proper Conduct of Banking Business Directive 301A, 50% of the annual bonus may be deferred and spread over three years, in a manner that compensates for unsatisfactory performance during that period, if any, and shall be paid in three equal installments, in cash, a condition for the payment of which is that the Bank does not record a loss in its financial statements in respect of the year preceding the date of payment of the deferred bonus installment, provided that the variable remuneration in a given year is higher than 40% of the fixed remuneration in that year; otherwise, the deferral shall not be performed, all subject to the applicable law.

Pursuant to the 2021 Remuneration Policy, the Remuneration Committee and the Board of Directors shall be authorized to subtract up to 100% of the annual bonus of an executive, in cases in which the financial or business position of the Bank makes it necessary, and/or due to reasons related to the functioning of the executive, and/or in exceptional cases of failure to comply with the directives of the law or severe noncompliance with the procedures of the Bank, or reasons to be explained.

The 2021 Remuneration Policy states that in the event that it emerges that bonuses were paid to an executive based on data that are found to be erroneous and are restated in the financial statements of the Bank, the executive shall reimburse the Bank for the difference between the amount of the bonus the executive received and the amount to which they would have been entitled according to the revision, provided that, if the executive has left the Bank, no more than three years have elapsed from the date of the end of the executive's employment at the Bank. The executive shall not be required to reimburse the Bank for the part of the bonus that has been deducted and paid as tax to the Tax Authority. There are also additional directives concerning the obligation of reimbursement of variable remuneration, according to the Banking Corporation Remuneration Policy Directive.

Table Q-1: Remuneration in respect of the reported year for senior officers and other key employees (in NIS millions)

	2022		2021	
	Senior officers	Other key employees	Senior officers	Other key employees
Amount of remuneration				
Fixed remuneration				
Number of employees	**20**	**175**	17	191
Total fixed remuneration	**34**	**206**	34	210
Of which: cash-based	**33**	**163**	29	164
Of which: deferred	**-**	**-**	-	-
Of which: shares or other share-based instruments	**4**	**8**	4	8
Of which: deferred	**-**	**-**	-	-
Of which: other forms	**(3)**	**35**	1	38
Of which: deferred	**-**	**-**	-	-
Variable remuneration				
Number of employees	**19**	**139**	16	143
Total variable remuneration	**9**	**47**	8	51
Of which: cash-based	**9**	**47**	8	50
Of which: deferred	**-**	**-**	-	1
Of which: shares or other share-based instruments	**-**	**-**	-	1
Of which: deferred	**-**	**-**	-	1
Of which: other forms	**-**	**-**	-	-
Of which: deferred	**-**	**-**	-	-
Total remuneration	**43**	**253**	42	261

Table Q-2: Special payments in the reported year to senior officers and other key employees (in NIS millions)

	2022					
	Guaranteed bonuses		Signing bonuses		Severance pay	
	Number of employees	Total	Number of employees	Total	Number of employees	Total
Senior officers	**-**	**-**	**-**	**-**	**1**	**-**
Other key employees	**-**	**-**	**-**	**-**	**12**	**7**

	2021					
	Guaranteed bonuses		Signing bonuses		Severance pay	
	Number of employees	Total	Number of employees	Total	Number of employees	Total
Senior officers	-	-	-	-	-	-
Other key employees	-	-	-	-	13	10

Table Q-3: Deferred remuneration for senior officers and other key employees (in NIS millions)

	2022				
	Total unpaid amount of deferred remuneration balance	Of which: total unpaid amount of balance of deferred remuneration and retained remuneration exposed to explicit and/or implicit retroactive adjustments	Total amount of amendment performed during the year due to explicit retroactive adjustments	Total amount of amendment performed during the year due to implicit retroactive adjustments**	Total amount of deferred remuneration paid during the reported year
Deferred remuneration and retained remuneration					
Senior officers					
Cash	**-**	**-**	**-**	**-**	**-**
Shares*	**-**	**-**	**-**	**-**	**-**
Share-based instruments	**-**	**-**	**-**	**-**	**-**
Other	**-**	**-**	**-**	**-**	**-**
Other key employees					
Cash	**1**	**1**	**-**	**-**	**-**
Shares*	**-**	**-**	**-**	**-**	**-**
Share-based instruments	**-**	**-**	**-**	**-**	**1**
Other	**-**	**-**	**-**	**-**	**3**
Total	**1**	**1**	**-**	**-**	**4**

	2021				
	Total unpaid amount of deferred remuneration balance	Of which: total unpaid amount of balance of deferred remuneration and retained remuneration exposed to explicit and/or implicit retroactive adjustments	Total amount of amendment performed during the year due to explicit retroactive adjustments	Total amount of amendment performed during the year due to implicit retroactive adjustments**	Total amount of deferred remuneration paid during the reported year
Deferred remuneration and retained remuneration					
Senior officers					
Cash	-	-	-	-	-
Shares*	-	-	-	-	-
Share-based instruments	-	-	-	-	-
Other	-	-	-	-	-
Other key employees					
Cash	-	-	-	-	-
Shares*	-	-	-	-	-
Share-based instruments	2	2	-	-	1
Other	7	-	-	-	3
Total	9	2	-	-	4

* Does not exist at the Bank.

** Contingent RSU forfeited due to partial attainment of the ROE difference that would grant entitlement to the maximum amount.

R. Addendums

R.1. Addendum A: Connections between the financial statements and supervisory exposures

Table R-1: Connection between the balance sheet and supervisory capital components

	December 31, 2022	December 31, 2021	References to components of supervisory capital
	Consolidated supervisory balance sheet		
	NIS millions		
Assets			
Cash and deposits with banks*	**133,424**	189,283	
* Of which: collective allowance for credit losses included in Tier 2 capital	**(8)**	(1)	10
Securities*	**107,400**	71,105	
* Of which: investments in capital of financial corporations that do not exceed 10% of the share capital of the financial corporation	**436**	493	
* Of which: investments in capital of financial corporations that exceed 10% of the share capital of the financial corporation, and do not exceed the deduction threshold	**35**	-	
* Of which: other securities	**106,929**	70,612	
* Of which: collective allowance for credit losses included in Tier 2 capital	**(17)**	-	10
Securities borrowed or purchased under agreements to resell	**898**	1,253	
Credit to the public	**394,262**	357,729	
* Of which: investments in capital of financial corporations that exceed 10% of the share capital of the financial corporation, and do not exceed the deduction threshold	**-**	113	
* Of which: investments in capital of financial corporations that do not exceed 10% of the share capital of the financial corporation	**44**	934	
Allowance for credit losses*	**(5,535)**	(5,106)	
* Of which: collective allowance for credit losses included in Tier 2 capital	**(4,052)**	(3,880)	10
* Of which: allowance for credit losses not included in supervisory capital	**(1,483)**	(1,226)	
Net credit to the public	**388,727**	352,623	
Credit to governments	**2,157**	1,969	
* Of which: collective allowance for credit losses included in Tier 2 capital	**(21)**	(5)	10
Investment in equity-basis investees*	**1,198**	853	
* Of which: investments in capital of financial corporations that exceed 10% of the share capital of the financial corporation, and do not exceed the deduction threshold	**70**	72	
Buildings and equipment	**3,522**	3,555	
Assets in respect of derivative instruments	**21,832**	12,984	
Other assets*	**6,195**	5,156	
* Of which: deferred tax assets**	**3,440**	3,447	
** Of which: deferred tax assets excluding those attributed to timing differences	**4**	28	6
** Of which: other deferred tax assets	**3,436**	3,419	
* Of which: additional other assets	**2,755**	1,709	
Total assets	**665,353**	638,781	

Table R-1: Connection between the balance sheet and supervisory capital components (continued)

	December 31, 2022	December 31, 2021	References to components of supervisory capital
	Consolidated supervisory balance sheet		
	NIS millions		
Liabilities and capital			
Deposits from the public	**532,588**	525,072	
Deposits from banks	**8,696**	11,601	
Deposits from the government	**3,262**	752	
Securities lent or sold under agreements to repurchase	**13,877**	3,426	
Bonds and subordinated notes*	**26,866**	25,582	
* Of which: subordinated notes not recognized as supervisory capital	**586**	3,022	
* Of which: subordinated notes recognized as supervisory capital**	**9,517**	8,189	
** Of which: qualifying as supervisory capital components	**9,517**	7,851	
** Of which: not qualifying as supervisory capital components and subject to transitional directives	**-**	338	9
Liabilities in respect of derivative instruments*	**19,043**	14,350	
* Of which: in respect of own credit risk	**17**	14	8
Other liabilities	**14,518**	15,251	
* Of which: collective allowance for credit losses included in Tier 2 capital	**734**	659	10
Total liabilities	**618,850**	596,034	
Shareholders' equity*	**46,502**	42,735	
* Of which: ordinary share capital and premium, retained earnings, other comprehensive loss, and capital reserves**	**46,502**	42,735	
** Of which: ordinary share capital	**1,337**	1,336	1
** Of which: premium on ordinary shares	**6,875**	6,864	2
** Of which: retained earnings	**41,346**	36,117	3
** Of which: accumulated other comprehensive loss***	**(3,072)**	(1,598)	4A
*** Of which: adjustments for presentation of securities available for sale at fair value	**(1,857)**	103	
*** Of which: net losses in respect of cash-flow hedges	**-**	-	7
** Of which: capital reserves from a benefit due to share-based payment transactions	**16**	16	4B
Non-controlling interests*	**1**	12	
* Of which: non-controlling interests attributable to common equity Tier 1 capital	**-**	8	5
* Of which: non-controlling interests not attributable to supervisory capital	**1**	4	
Total capital	**46,503**	42,747	
Total liabilities and capital	**665,353**	638,781	

Table R-2: Connections between the financial statements and supervisory exposures

	December 31, 2022					
	Balance sheet balances as reported in the published financial statements and according to the supervisory consolidation base	Balance sheet balances of items:				
		Subject to a credit risk limit	Subject to a counterparty credit risk limit	Subject to a securitization limit	Subject to a market risk limit	Not subject to capital requirements or subject to deduction from the capital base
	NIS millions					
Assets						
Cash and deposits with banks	**133,424**	**133,424**	**-**	**-**	**-**	**-**
Securities	**107,400**	**98,271**	**-**	**-**	**9,129**	**-**
Securities borrowed or purchased under agreements to resell	**898**	**898**	**-**	**-**	**-**	**-**
Credit to the public	**394,262**	**394,236**	**-**	**26**	**-**	**-**
Allowance for credit losses	**(5,535)**	**(623)**	**-**	**-**	**-**	**(4,912)**
Net credit to the public	**388,727**	**393,613**	**-**	**26**	**-**	**(4,912)**
Credit to governments	**2,157**	**2,157**	**-**	**-**	**-**	**-**
Investment in equity-basis investees	**1,198**	**1,198**	**-**	**-**	**-**	**-**
Buildings and equipment	**3,522**	**3,522**	**-**	**-**	**-**	**-**
Assets in respect of derivative instruments	**21,832**	**-**	**21,832**	**-**	**-**	**-**
Other assets	**6,195**	**6,118**	**-**	**-**	**-**	**77**
Total assets	**665,353**	**639,201**	**21,832**	**26**	**9,129**	**(4,835)**
Liabilities						
Deposits from the public	**532,588**	**-**	**-**	**-**	**-**	**-**
Deposits from banks	**8,696**	**-**	**-**	**-**	**-**	**-**
Deposits from the government	**3,262**	**-**	**-**	**-**	**-**	**-**
Securities lent or sold under agreements to repurchase	**13,877**	**-**	**-**	**-**	**-**	**-**
Bonds and subordinated notes	**26,866**	**-**	**-**	**-**	**-**	**-**
Liabilities in respect of derivative instruments	**19,043**	**-**	**-**	**-**	**-**	**-**
Other liabilities	**14,518**	**-**	**-**	**-**	**-**	**-**
Total liabilities	**618,850**	**-**	**-**	**-**	**-**	**-**

Table R-2: Connections between the financial statements and supervisory exposures (continued)

	December 31, 2021					
	Balance sheet balances as reported in the published financial statements and according to the supervisory consolidation base	Balance sheet balances of items:				
		Subject to a credit risk limit	Subject to a counterparty credit risk limit	Subject to a securitization limit	Subject to a market risk limit	Not subject to capital requirements or subject to deduction from the capital base
	NIS millions					
Assets						
Cash and deposits with banks	189,283	189,283	-	-	-	-
Securities	71,105	62,166	-	-	8,939	-
Securities borrowed or purchased under agreements to resell	1,253	1,253	-	-	-	-
Credit to the public	357,729	357,703	-	26	-	-
Allowance for credit losses	(5,106)	(1,204)	-	-	-	(3,902)
Net credit to the public	352,623	356,499	-	26	-	(3,902)
Credit to governments	1,969	1,969	-	-	-	-
Investment in equity-basis investees	853	853	-	-	-	-
Buildings and equipment	3,555	3,555	-	-	-	-
Assets in respect of derivative instruments	12,984	-	12,984	-	-	-
Other assets	5,156	5,018	-	-	-	138
Total assets	638,781	620,596	12,984	26	8,939	(3,764)
Liabilities						
Deposits from the public	525,072	-	-	-	-	-
Deposits from banks	11,601	-	-	-	-	-
Deposits from the government	752	-	-	-	-	-
Securities lent or sold under agreements to repurchase	3,426	-	-	-	-	-
Bonds and subordinated notes	25,582	-	-	-	-	-
Liabilities in respect of derivative instruments	14,350	-	-	-	-	-
Other liabilities	15,251	-	-	-	-	-
Total liabilities	596,034	-	-	-	-	-

Table R-3: Main sources of differences between supervisory exposure amounts and balance sheet balances in the financial statements

	December 31, 2022				
	Total	Items to which the following apply:			
		Credit risk limit	Counterparty credit risk limit	Securitization limit	Market risk limit
	NIS millions				
Amount of balance sheet balance of assets according to supervisory consolidation base	**665,353**	**634,366**	**21,832**	**26**	**9,129**
Amount of balance sheet balance of liabilities according to supervisory consolidation base	**-**	**-**	**-**	**-**	**-**
Total net amount according to supervisory consolidation base	**665,353**	**634,366**	**21,832**	**26**	**9,129**
Off-balance sheet amounts	**210,744**	**68,389**	**-**	**-**	**-**
Additional differences caused by different netting rules	**(28,150)**	**(28,150)**	**-**	**-**	**-**
Differences caused by provisions	**4,912**	**4,912**	**-**	**-**	**-**
Other differences	**16,858**	**14,120**	**2,738**	**-**	**-**
Exposure amounts taken into account for supervisory purposes	**869,717**	**693,637**	**24,570**	**26**	**9,129**

	December 31, 2021				
	Total	Items to which the following apply:			
		Credit risk limit	Counterparty credit risk limit	Securitization limit	Market risk limit
	NIS millions				
Amount of balance sheet balance of assets according to supervisory consolidation base	638,781	616,832	12,984	26	8,939
Amount of balance sheet balance of liabilities according to supervisory consolidation base	-	-	-	-	-
Total net amount according to supervisory consolidation base	638,781	616,832	12,984	26	8,939
Off-balance sheet amounts	223,935	72,220	16,301	-	-
Additional differences caused by different netting rules	(29,915)	(13,516)	(16,399)	-	-
Differences caused by provisions	3,902	3,902	-	-	-
Other differences	5,680	5,110	570	-	-
Exposure amounts taken into account for supervisory purposes	842,383	684,548	13,456	26	8,939

Note:
Includes amounts below deduction thresholds (subject to 250% risk weight).

Establishing the fair value of financial instruments

Pursuant to ASC 820-10 (FAS 157), fair value is defined as the price that would be obtained from the sale of an asset, or that would be paid to transfer a liability, in an ordinary transaction between market participants at the date of measurement. In order to assess fair value, the standard requires the maximum possible use of observable inputs, and minimum use of unobservable inputs. Observable inputs represent information available in the market and received from independent sources, whereas unobservable inputs reflect the assumptions of the Bank. ASC 820-10 specifies a hierarchy of measurement techniques, based on whether the inputs used to establish fair value are observable or unobservable. These types of inputs form the following fair-value hierarchy:

- Level 1 data: Prices quoted (unadjusted) in active markets for identical assets or liabilities, accessible to the Bank at the measurement date.
- Level 2 data: Directly or indirectly observable inputs regarding the asset or liability other than quoted prices included in Level 1.
- Level 3 data: Unobservable inputs regarding the asset or liability.

The hierarchy requires the use of observable market inputs when such information is available. When the inputs used to measure fair value are classified into different levels of the fair-value hierarchy, the Bank classifies the overall fair-value measurement at the lowest level of an input significant for the overall measurement.

Fair-value measurements of financial instruments are performed without taking a blockage factor into consideration, both for financial instruments evaluated according to Level 1 data and for financial instruments evaluated according to Level 2 or 3 data, with the exception of situations in which a premium or discount would be taken into account in the fair-value measurement by market participants in the absence of Level 1 data.

Assessment of credit risk and nonperformance risk

FAS 157 (ASC 820) requires the Bank to reflect credit risk and nonperformance risk in measuring the fair value of debt, including derivative instruments, issued by the Bank and measured at fair value. Nonperformance risk includes the credit risk of the Bank, but is not limited to this risk alone.

The Bank assesses credit risk in derivative instruments in the following manner:

- When sufficient liquid collateral exists in respect of the exposure, specifically securing the derivative instrument at a high degree of legal certainty, the Bank takes such collateral into consideration in determining the credit risk.
- When exposure in respect of the counterparty is material, the Bank performs a fair-value assessment based on indications of the quality of credit of the counterparty from transactions in an active market, insofar as such indications are available with reasonable effort. The Bank derives these indications, among other matters, from prices of debt instruments of the counterparty traded in an active market, and from prices of credit derivatives the basis for which is the quality of credit of the counterparty. If no such indications exist, the Bank calculates the adjustments based on internal ratings (e.g. estimates of expected default rates and rates of credit losses in the event of default).

The calculation is performed based on an internal model that assumes various scenarios regarding the value of the transactions.

R.2. Addendum B: Securitization exposures

The volume of the Bank's exposure in respect of securitization is approximately NIS 26 million.

During the second quarter of 2018, the Bank entered into a transaction for the financing of receivables portfolios as an investor, within which the Bank granted loans in a total amount of approximately NIS 120 million, backed by receivables portfolios transferred by the initiator to a special purpose entity (SPE). The balance of the transaction as at December 31, 2022, totaled NIS 26 million, similar to the balance at the end of 2021.The risk weight applied to the amount of the exposure in respect of the transaction is determined according to the risk weight derived from the A- rating assigned by the rating agency S&P Global Ratings.