RISK MANAGEMENT REPORT 2022

Moving Forward While Staying Personal,
For 100 Years Now.

This report includes supplementary information to the Bank's financial statements and is prepared in accordance with the Supervisor of Banks' directives, which include disclosure requirements from Basel Pillar III and additional disclosure requirements by the Financial Stability Board (FSB). The Israel Securities Authority's MAGNA website includes the following reports: The periodic report and the financial statements in XBRL format, the actuarial assessment regarding employee rights at the Bank, this risk management report and additional supervisory information regarding supervisory capital instruments issued by the Bank. In conformity with the Supervisor of Banks' directives, the financial statements, including XBRL format, the Bank's "solo" financial statements, this risk management report and additional supervisory information, as stated, are also available on the Bank website at www.mizrahi-tefahot.co.il/en ▶ financial reports. In accordance with the Equal Rights for Persons with Disabilities (Service Accessibility Adjustments) Regulations, 2013, the website also includes accessible reports.

Bank Mizrahi Tefahot

2022 Risks Management Report

This report includes additional information to the Bank's financial statements and is compiled in conformity with directives of the Supervisor of Banks, which include disclosure requirements of Basel Pillar 3 and additional disclosure requirements of the Financial Stability Board (FSB).

The following reports are available on ISA's MAGNA website: The Periodic Report, actuarial assessment with regard to employees' rights at the Bank, this Risks Management Report and other supervisory information about supervisory capital instruments issued by the Bank.

In conformity with directives by the Supervisor of Banks, the financial statements, the Bank's solo financial statements, this Risks Report and other supervisory information are also available on the Bank's website:

-Hyperlink Removed- >> about the bank >> investor relations >> financial statements.

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Risks Report

This risks report includes additional information to the consolidated financial statements of Bank Mizrahi Tefahot Ltd. and its subsidiaries as of December 31, 2022. This report provides complementary and additional information to the Bank's consolidated financial statements and to the Report of the Board of Directors and Management as of December 31, 2022, and should be used in conjunction with the information presented in those reports.

The risks report and other supervisory disclosures are presented in conformity with directives and guidelines of the Supervisor of Banks, including disclosure requirements from Basel Pillar 3, disclosure requirements issued by the Financial Stability Forum (FSF) and further disclosure requirements of the Financial Stability Board (FSB).

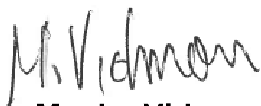
The disclosure in this report is designated to allow readers to evaluate significant information included with regard to implementation of the framework for capital measurement and capital adequacy and to implementation of provisions of "Basel III: Global supervisory framework to improve stability of the banking system".

All of the financial statements and accompanying information, including the risks report, are also available on the Bank website at:

www.mizrahi-tefahot.co.il About the Bank >> Investor Relations >> Financial Information

The financial statements and additional information to the financial statements, including the Report of the Board of Directors and Management, this Risk Management Report and other supervisory disclosures have been approved for publication by the Bank's Board of Directors at its meeting held on March 13, 2023.

In conformity with the Equal Rights for Persons with Disabilities Regulations (Service accessibility adaptations), 2013, the website also provides accessible reports.



Moshe Vidman

Chairman of the Board of Directors

Moshe Lari

President & CEO

Doron Klauzner

Vice-president, Chief Risks Officer (CRO)

Approval date of the financial statements and risks report:
Ramat Gan, March 13, 2023

Forward-looking information

Some of the information in the Risks Report, which does not relate to historical facts, constitutes “forward-looking information”, as defined in the Securities Law, 1968 (hereinafter: "the Law").

Actual Bank results may materially differ from those included in the forward-looking information, due to many factors including, inter alia, changes to capital markets in Israel and overseas, macro-economic changes, geo-political changes, changes to legislation and regulation and other changes not within the Bank's control, which may result in assessments not materializing and/or in changes to business plans.

Forward-looking information typically includes words or expressions such as: "we assume", "expected", "forecasted", "estimate", "intend", "plan", "may change" and similar expressions, as well as nouns such as: "plan", "objectives", "desire", "should", "may", "will be". Such forward-looking expressions involve risk and uncertainty, as they are based on current Bank assessments with regard to future events, which include the following: Forecasts of economic developments in Israel and worldwide, especially the state of the economy, including the effect of macroeconomic and geopolitical conditions; expectation of changes and developments in the currency markets and the capital markets, forecasts related to other factors affecting the exposure to financial risks, forecasts of changes in the financial stability of borrowers, the public’s preferences, changes to legislation and supervisory regulations, the behavior of competitors, the Bank’s image, technological developments and developments with regard to human resources.

The information presented below relies, *inter alia*, on publications from the Central Bureau of Statistics, Ministry of Finance, Bank of Israel, Ministry of Housing and others who publish data and estimates with regard to capital markets in Israel and overseas, and on forecasts and future estimates on various matters, as noted above, and any anticipated events or developments may fail to materialize, in whole or in part.

Application scope

The Group is supervised on consolidated basis by the Supervisor of Banks at the Bank of Israel. Consolidation of the consolidated entities and recording of the carrying amount of associates are in conformity with generally accepted accounting principles and in conformity with directives of the Bank of Israel. As of December 31, 2022, there were no differences between the consolidation basis based on accounting principles and the supervisory consolidation basis for capital adequacy purposes. As required by directives of the Bank of Israel, the data presented in conjunction with supervisory disclosure requirements in conformity with provisions of the Basel Committee included in this report, are only presented on consolidated basis and are based on the financial information presented on the financial statements, with adjustments mandated by application of the Basel Committee directives (such as: deductions from capital, debt instruments qualified for inclusion in regulatory capital, special treatment of accounting effect with respect to streamlining plan on Bank capital).

For more information about investees, see chapter "Major investees" on the Report by the Board of Directors and Management and in Notes to the financial statements as of December 31, 2022.

Key supervisory ratios and overview of risk management and weighted risk assets

Key supervisory ratios – key data

Below is key data relevant for the Bank risk profile:

	2022				2021			
	Fourth quarter	Third quarter	Second quarter	First quarter	Fourth quarter	Third quarter	Second quarter	First quarter
Key supervisory and financial ratios								
Available capital								
Tier I equity(1)	25,072	24,332	23,567	22,650	21,969	22,099	21,783	20,708
Tier I capital before effect of transitional provisions	24,791	24,047	23,277	22,355	21,935	22,045	21,709	20,607
Total capital	33,087	32,186	31,555	30,314	29,883	30,268	30,267	27,373
Total capital before effect of transitional provisions	32,828	31,923	31,287	30,097	29,402	29,767	29,746	26,825
Risk weighted assets								
Total risk weighted assets (RWA)	252,251	245,282	235,783	226,301	218,710	211,706	206,779	203,936
Capital adequacy ratio (in %)								
Tier I capital ratio[1]	9.94	9.92	10.00	10.01	10.04	10.44	10.53	10.15
Tier I capital ratio before effect of transitional provisions	9.78	9.75	9.85	9.86	10.03	10.41	10.50	10.10
Total capital ratio	13.12	13.12	13.38	13.40	13.66	14.30	14.64	13.42
Total capital ratio before effect of transitional provisions	12.95	12.94	13.25	13.28	13.44	14.06	14.38	13.15
Tier I capital ratio required by Supervisor of Banks	9.60	9.61	9.62	9.61	8.60	8.60	8.63	8.66
Available Tier I capital ratio, beyond what is required by the Supervisor of Banks[2]	0.34	0.31	0.38	0.40	1.44	1.84	1.90	1.49
Leverage ratio								
Total exposure	463,010	462,856	450,369	426,244	423,950	411,555	406,235	401,308
Leverage ratio (in %) [3]	5.42	5.26	5.23	5.31	5.18	5.37	5.36	5.16
Leverage ratio before effect of transitional provisions (in %)	5.35	5.20	5.17	5.24	5.17	5.36	5.34	5.13
Liquidity coverage ratio[4]								
Total high quality liquid assets	84,000	84,602	84,379	85,927	88,141	91,377	88,745	84,754
Total outgoing cash flows, net	71,431	70,909	70,430	71,724	70,541	72,679	66,992	63,729
Liquidity coverage ratio (in %)	118	119	120	120	125	126	132	133
Net stable funding ratio								
Total available stable funding[5]	277,605	285,733	274,230	258,878	259,631	-	-	-
Total required stable funding	241,884	246,196	240,140	223,862	218,447	-	-	-
Net stable funding ratio (in %)	115	116	114	116	119	-	-	-
Performance benchmarks								
Net profit return on equity[6][7]	18.5	20.8	19.4	[8]21.9	12.9	16.2	19.8	14.1
Net profit return on risk assets[6][7]	1.92	1.96	1.82	2.07	1.26	1.62	1.92	1.34
Deposits from the public to loans to the public, net	112.0	113.6	109.9	110.5	113.4	117.0	115.8	117.7
Key credit quality benchmarks								
Ratio of balance of provision for credit losses to total loans to the public	0.93	0.91	0.88	0.89	0.77	0.83	0.86	0.96
Balance of provision for credit losses, including estimated credit losses in balance of loans to the public at Union Bank, as percentage of loans to the public	0.93	0.94	0.91	0.94	0.85	0.91	0.95	1.07
Ratio of non-accruing debts or debts in arrears 90 days or longer to loans to the public	0.87	0.99	1.20	1.13	0.95	1.06	1.07	1.23
Expenses with respect to credit losses to loans to the public, net for the period[7]	0.25	0.20	0.14	0.11	(0.02)	(0.06)	(0.38)	0.02
Of which: With respect to group-based provision	0.17	0.14	0.08	0.03	(0.04)	(0.10)	(0.34)	(0.06)
Of which: With respect to commercial loans other than residential mortgages	0.65	0.43	0.25	0.26	0.11	(0.11)	(0.80)	0.16
Of which: with respect to residential mortgages	0.02	0.07	0.08	0.03	(0.09)	(0.02)	(0.14)	(0.06)
Ratio of net accounting write-offs to average loans to the public[7]	0.22	0.05	0.06	0.03	0.09	0.03	0.04	0.06

	For the year ended December 31	
	2022	2021
Performance benchmarks		
Net profit return on equity[6]	[8]20.1	15.8
Net profit return on risk assets[6]	1.91	1.53
Key credit quality benchmarks		
Expenses with respect to credit losses to loans to the public, net for the period	0.17	(0.10)
Of which: With respect to group-based provision	0.11	(0.13)
Of which: With respect to commercial loans other than residential mortgages	0.39	(0.15)
Of which: with respect to residential mortgages	0.05	(0.08)
Ratio of net accounting write-offs to average loans to the public	0.09	0.05

Financial ratios indicate as follows:

- Net profit return on equity in this year was 20.1%, due to increased business volume, higher Bank of Israel interest rate and higher Consumer Price Index.
- The ratio of Tier I capital to risk components increased to 9.94%. The minimum ratio required of the Bank is 9.60%.
- The Bank effectively manages its compliance with regulatory targets stipulated for capital adequacy, liquidity and leverage.

(1) The Bank has no capital instruments included in "Additional Tier I capital", so that total Tier I capital equals total Tier I equity.
(2) Including a capital requirement at 1% of the residential mortgage balance as of the date of the financial statements.
(3) Leverage Ratio – ratio of Tier I capital (according to Basel rules) to total exposure. This ratio is calculated in conformity with Proper Conduct of Banking Business Directive 218.
(4) Liquidity Coverage Ratio – ratio of total High-Quality Liquid Assets to net cash outflow. This ratio is calculated in conformity with Proper Conduct of Banking Business Directive 221, in terms of simple averages of daily observations during the most recent reported quarter.
(5) Net stable funding ratio – a liquidity ratio stipulated by the Supervisor of Banks, in conformity with recommendations of the Basel Committee, designed to maintain a sustainable financing structure over time, in addition to the liquidity coverage ratio. The requirement to calculate and maintain a minimum net stable funding ratio and the required public disclosure apply as from December 31, 2021.
(6) Net profit attributable to shareholders of the Bank.
(7) Annualized. In conformity with Bank of Israel circular 2664-06, the calculation method for presenting return for interim periods has been revised. Comparative figures were revised accordingly. Net profit return on equity in 2021 using the old method was: For the first quarter: 14.9%; for the second quarter: 21.3%; for the third quarter: 17.3%; for the fourth quarter: 13.5%.
(8) Excluding effect of capital gain, net from sale of assets, net profit return on equity in 2022 and in the first quarter of 2022 was 18.8% and 16.6%, respectively.

Bank approach to risk management (OVA)

The Bank's business activity is exposed to various financial and non-financial risks, whose materialization has potential to impact the Bank's financial results or image. The key financial risks managed by the Bank are: Credit risk, including concentration risk, liquidity risk and market and interest risk. Along with financial risks, Bank operations are also involved with non-financial risks, such as: compliance and regulatory risk, operational risk, IT risk, information and cyber security risk, legal risk, reputational risk and other risks, such as: climate and environmental risk, business model risk and sector competition.

Risks management and control processes at the Bank and at the Group are designed to identify, manage, monitor, quantify and mitigate all material risks associated with Bank operations and to support achievement of the Bank's business objectives.

This chapter describes how management and the Board of Directors assess and manage risks, in order to disclose to stake holders relevant and material information for understanding all significant risks to which the Bank is exposed, including an understanding of the Bank's risk tolerance and risk appetite with regard to major operations and to significant risks, the risk profile and material changes that took place in the reported period which have material impact on risks at the Bank and how they are managed.

General information regarding management of various risks and the risk profile

The Bank has in place an extensive framework for management and control of the risks to which the Bank is exposed, including an organizational structure to support management and control of such risks. The Bank operates in conformity with directives of the Supervisor of Banks with regard to risk management and control, and in conformity with Proper Conduct of Banking Business Directives, and in particular with Directive 310 "Risks Management", which is based on the Basel Committee recommendations, which specifies the principles for risks management and control in the Israeli banking system and stipulates the standards required of the banks for creating their risks management and control framework in line with regulatory requirements, the Bank's risk profile, risk strategy and its business targets. All Bank policy documents for risk control and management are based on these underlying principles.

Risk management at the Group is conducted based on an overview of Bank activity in Israel and at overseas affiliates, in conformity with regulatory requirements, to support achievement of the Group's strategic targets, while taking risk judiciously and maintaining a risk level in line with the overall risk appetite specified by the Bank Board of Directors.

The risk appetite defines, at the highest level, the overall risk level which the Bank is willing to assume. The risk appetite specifies where the Bank wishes to be in terms of return (proceeds/reward) vs. risk (cost) from a forward-looking viewpoint. Risk appetite is defined in qualitative and quantitative terms in the normal course of business and under stress scenarios, and is based on the risk strategy and on basic principles of the Bank's business and strategic plan, on the required liquidity and capital for achieving the strategic objectives and on results of the various stress scenarios tested by the Bank.

Risk tolerance is a specific setting of risk levels for all risks to which the Bank is exposed. Risk levels are determined by a range of qualitative and quantitative benchmarks, in support of achieving the business goals, while keeping the Bank within the overall limits of the specified risk appetite and subject to strict regulatory restrictions. These risk restrictions, on aggregate, reflect the overall risk level which the Bank is willing to assume.

Efficient, comprehensive risk management is a major pillar for ensuring bank stability over time. Risks management and control processes at the Bank and at the Group are designed to identify, manage, monitor, quantify, avoid and mitigate all material risks associated with Bank operations and to support achievement of the Bank's business objectives. Bank and Group business activity in diverse on- and off-balance sheet products and financial instruments is exposed to various financial and non-financial risks, whose materialization has potential to impact the Bank's financial results or image. The key financial risks managed by the Bank are: Credit risk, including concentration risk, liquidity risk and market and interest risk and so forth. Along with financial risks, Bank operations are also involved with non-financial risks, such as: compliance and regulatory risk, operational Risk (including IT risk, information and cyber security risk, legal risk, reputational risk and other risks, such as: environmental risk, business model rsk and sector competition.

Major and emerging risks

The Bank's business activity exposes the Bank to various financial and non-financial risks, with potential to impact the Bank's financial results or image. Top risks and evolving risks are derived from the Bank's business environment, which is impacted by the macro-economic environment, by risk associated with regulation and legislation, by changes to the business model and by social and consumer trends. In recent years, due to changes in the competitive landscape, in the consumer environment, in the regulatory environment and in technology, non-financial risks have been evolving.
The Bank reviews major risks, existing or new ones, arising from developments in the Bank's business environment, which may materialize over the coming year and with potential to materially impact the Bank's financial results and stability. The

Bank also identifies emerging risks, or risks which may materialize over the longer term, with uncertainty about their nature and impact on the Bank. The risk mapping at the Bank is regularly reviewed to ensure it covers all risks associated with the Bank's business activity, as well as those arising from market conditions and from regulatory requirements.

In recent months there has been uncertainty in view of Government plans to promote changes to the judicial system and the public disagreement with regard to this move. At this stage it is too early to assess the developments and impact of these events on Israel's economy.

Below are details of material major and emerging risks identified at the Bank:

Strategic business risk – is the risk, in real time or in future, to Bank profits, capital, reputation or status, which may arise from erroneous business decisions, improper deployment of decisions by the Bank or inappropriate alignment of the Bank to changes in the business environment in which it operates. This means the risk that the Bank chose the wrong strategy or that the Bank would not be able to implement the business and strategic plan as planned. The materiality of business-strategic risk requires the Bank to take measures which would allow it to manage this risk and take steps for assessment and early identification of events which may preclude implementation of the strategy.

Developments in the business environment which may impact strategic risk include increased local and global geo-political tension, its impact on local and global economic activity, effect of inflation and higher interest rates, which raised the cost of borrowing, technological developments in the world of finance and changes to consumer preferences, the impact of regulatory provisions in core areas of banking operations. The Bank is prepared for emergencies so as to reduce the impact to the Bank's business and strategic plan, should extreme economic or geo-political conditions evolve. Increased competition and further digitization of the banking system, as well as changes to customer behavior and to business model, that may result in material impact on the banking system over the medium to long range and impact the Bank's business results.

Impact of regulatory directives on core banking activities, including potential impact of the Increased Competition and Reduced Concentration in the Banking Market in Israel Law. The Law is designed to increase competition for retail banking services with regard to the supply side – by adding new players, and the demand side – by enhancing consumers' ability to compare the costs of financial services. Technological developments in the world of finance and changes to consumer preferences result in ever-growing transition to digital banking activities. The evolution of open banking may result in increased price competition, primarily for payments and money transfers. In view of these developments, there is growing risk of diffused consumption of banking products and increased competitive threat to the banking system, due to entry of non-banking financial entities and technology companies into areas of banking activity. The Bank is preparing for this changing technological world by adapting the banking production function through, inter alia, investments in technology. In 2022, regulatory risk increased due to proliferation of various proposed legislation.

On April 26, 2021, the Bank's Board of Directors approved a five-year strategic plan for 2021-2025 based, *inter alia*, on positioning the Bank as a key player in business banking, establishing the Bank Group's leadership position among households, providing personal, human banking services supported by advanced digital technology, including optimal combination of human and digital channels, with human service by expert bankers, including in digital, in accordance with customer choice and needs, as well as offering personalized value propositions across all channels, which are customized for customer needs, adapting the operating model to future challenges and further improvement in operating efficiency and leveraging the Union Bank merger to generate operating and business synergies and to realize economies of scale. For more information see Immediate Report dated April 27, 2021 (reference: 2021-01-071448).

Bank results in 2022 indicate that the Bank has surpassed the business objectives set in the strategic plan.

Macro-economic risk – The state of the local and global economy, changes to fiscal policy, significant changes in monetary policy and in interest rate curves, market volatility and changes in prices of financial assets in Israel and world-wide and in real estate prices may potentially impact Bank operations and the business-strategic risk.

Uncertainty with regard to increased geo-political tension globally, in particular between Western countries and Russia and between the USA and China is a major risk factor that may impact the global macro-economic environment.

In 2022, the pace of inflation was higher in Israel and world-wide, due to significantly higher demand following the Corona Virus crisis, which the supply side failed to deliver on due to disruptions in the global supply chain, along with higher prices of commodities, food and energy due to the war in the Ukraine.

Since the start of 2022, the pace of inflation in Israel has been increasing consistently, with higher prices of negotiable and non-negotiable goods. The rapid increase in monetary interest rates was designed to curb demand and to bolster the local currency in order to achieve more moderate inflation. The Bank of Israel started, in the second quarter of 2022, a string of interest rate increases, from 0.1% up to 3.25% at the end of 2022. In January and February 2023, two further interest rate increases brought the interest rate to 4.25%. There is concern that raising interest rates too sharply may result in a recession in developed economies. Therefore, central banks determine the pace of raising interest rates based on the stability of economic activity, state of the labor market and developments in the level of demand. The higher interest rate and inflation made for higher borrowing costs and may impact the Bank's credit risk. The Bank regularly monitors the potential effects on its business operations. Furthermore, there is still some uncertainty with regard to potential future implications of the higher interest rate environment on business and economic activity.

In 2022, the Corona Virus primarily impacted global economic activity in China, which had imposed many travel restrictions due to on-going waves of morbidity. These restrictions affected global demand, but also extended the disruption to the global

supply chain. There is still uncertainty with regard to future outbreaks of the virus, its future attributes and potential future impact on business and economic activity.

Information security risk – Information security risk is risk arising from faults in protection of the Bank's computer systems and information stored there. Cyber risk arises from an event including an attack on computer systems by or on behalf of internal or external adversaries of the Bank.

Cyber threats towards financial institutions continues to evolve and increase. Attack incidents show increased sophistication and motivation, with a significant increase in the number of cyber events and in the extent of losses due to such events world-wide. Moreover, technology and digital developments to the banking system increased the threat surfaces and increased the cyber risk. The Bank's information security department continues to reinforce the defense mechanisms applied in Bank systems, in order to limit the ability to defraud customers and to conduct un-authorized transactions in customer accounts. These actions are part of the debrief and lesson learning processes in place at the Bank with regard to this evolving threat.

The Bank's information security team operates fully and continuously throughout the year, constantly improving and bolstering defense capabilities and mechanisms, in conformity with expansion of threats and challenging needs which the Bank is required to face.

Technological risk – Technological risk is a significant risk to the banking system. The risk is affected by more rapid technological and digital development, in response to changing customer needs. The legacy core systems at banks, along with multiple banking regulatory requirements within short timeframes increase the potential damage that may arise from technology risk that is material for proper operation of the Bank. In 2022, the Technology Division continues to fully operate in support of normal Bank operations and in providing a response to current and future technology requirements for such operations.

As part of bolstering its technology infrastructure, the Bank invests in technology systems, in order to address the evolving challenges in the business environment. The rapid pace of change in technology, changes to how services are made accessible to customers and expansion of the range of channels used by the Bank and its customers, require constant investment in technology. Investments are also made to upgrade the business capabilities and for compliance with new regulatory requirements, such as preparing for Open Banking. The Bank is also developing advanced tools for handling data and extracting information from data, in order to improve its measuring capacity and decision making, both from business marketing aspects and from risk management aspects.

Compliance and regulatory risk – Bank business operations are subject to regulation. Compliance risk is the risk of imposition sanctions, material financial loss or damage to reputation, which the Bank may incur due to its failure to comply with compliance provisions. Compliance provisions also include the following laws: ISA Enforcement Proceeding Streamlining Law (Legislative Amendments), 2011; Securities Law 1968; Mutual Investment Law, 1994; Arrangement of Engagement in Investment Consultancy, Investment Marketing and Management of Portfolios Law, 1995 (hereinafter: "the Advisory Law"); hereinafter jointly – "securities laws" as well as the Economic Competition Law, 1988. Compliance with these laws is also handled by internal enforcement programs of securities laws and economic competition laws, respectively. Compliance risk also includes fairness issues and privacy protection laws.

Note that the Bank has practically zero risk appetite for compliance and regulatory risk, with regard to compliance with statutory provisions applicable to the Bank. Therefore, the Bank has determined that any deficiencies found in compliance with statutory provisions should be addressed by Bank units as a top priority. The Bank has specified a multi-annual work plan, which includes required action for reducing compliance risk.

Moreover, due to the ongoing Russia-Ukraine war, the Bank continues to monitor the sanction list (including sector-specific sanctions) published with regard to this matter by the USA, EU and the UK and applies these.

Environmental risk and climate risk

Environmental risk – This is risk due to potential impact of environmental changes on financial institutions. The Bank is exposed to potential loss due to deterioration in the borrower's financial position due to high costs incurred as a result of environmental hazard and regulation concerning environmental protection, or due to impairment of collateral exposed to environmental risk or to the Bank being indirectly liable for an environmental hazard caused by a project funded by the Bank. Environmental risk also includes other, derived risks: reputation risk, third-party liability risk and so forth.

Climate risk is risk due to increased frequency and intensity of weather events due to global warming. The Bank faces risk of financial loss or impact to its reputation, due to materialization of physical events or processes or adjustment to transition risk due to climate change.

Climate risk includes transition risk, which is regarded as long-term risk. Such risk is due to the accommodation process to a low-carbon economy (such as transition to renewable energy sources, carbon taxation, improved energy efficiency and so forth), as well as physical risk that may materialize due to direct impact of extreme events, such as fire, flooding and so forth, and due to prolonged, chronic change that may result from higher sea levels and higher temperatures that may affect the eco-system, desertification processes and so forth.

In December 2022, the Supervisor of Banks issued a directive updating the Public Reporting Regulations with regard to disclosure of ESG aspects. This directive expands the disclosure requirements with regard to management of ESG risk (Environment, Social and Governance); this directive is to be implemented as from the 2022 ESG Report. Moreover, in December 2022, the Supervisor of Banks issued a draft directive on "Principles for effective management of financial risks related to climate", based on guidance from the Basel Committee. The full, final implementation date has yet to be decided.

For more information about management of these risks, see chapter "Environment, society and governance" in the Report by the Board of Directors and Management.

This information constitutes forward-looking information, as defined in the Securities Law, 1968, based on assumptions, facts and data (hereinafter jointly: "assumptions") brought before the Bank's Board of Directors. These assumptions may not materialize due to factors which are under the Bank's control.

Corporate governance of risks management at the Bank

Corporate governance at the Bank is supportive of maintaining a risk management culture, and is based on three lines of defense: First line of defense – the business lines; Second line of defense – the Risks Control Division headed by the Bank CRO, which is the primary control function, along with control functions from other divisions; and the third line of defense – the Internal Audit Division.

The Board of Directors and management constitute additional lines of defense, acting to supervise operation of the three lines of defense.

These lines of defense are intended to ensure that the Bank has deployed an appropriate framework for risks management and control. Below is specification of the business functions in the three lines of defense:

Lines of Defense

Line	Function	Reporting to	Role
First line of defense	Lines of business	Business line managers, reporting directly to the President & CEO	Unit management that is fully responsible for risks management and for implementing an appropriate control environment for its operations
Second line of defense	Risks Control Division, which is the primary control function, and other units.	President & CEO	The Risks Control Division, headed by the CRO, is independent of the business units, acts in concert with control functions of other divisions, including the Financial Information and Reporting Division and the Legal Division, in order to complete the risk management activities of the first line of defense, and to assist management in promoting an integrated, cross-corporate vision of risks, plan and develop the risks management framework, challenge and ensure completeness and effectiveness of the risks management framework and internal controls.
Third line of defense	Internal Audit	Chairman of the Bank's Board of Directors	Acts independently, reviews the effectiveness and efficiency (mostly in retrospect) of work processes and risk management in conformity with a risk-based multi-annual program, identify weaknesses in internal controls which may impact the effectiveness of control and monitoring remedial action taken for such identified weaknesses.

Different interfaces have been specified between the lines of defense, including forums and reporting channels deployed under normal and emergency conditions. A strong risk management culture and good communications of risk-related information between the three lines of defense are features of appropriate risk management governance. Communication of risk-related information is designed to ensure the information flow which allows the Bank to address the material risks for its operations, or the potential for development of such risks, while achieving the Bank's business targets.

Corporate governance of risks management at subsidiaries

Risk management is conducted at Bank level and at Group level, including overseas affiliates and subsidiaries, and the Bank has Group-wide responsibility for the overall risk management framework. In this context, risks management and control policy is coordinated with Bank subsidiaries, with regular supervision and control over subsidiaries. The subsidiaries manage risk in conformity with Group policy and report their exposures to various risks to the Bank.

The functions involved in risks management and control at the Bank are as follows:

Bank's Board of Directors

The major roles of the Board of Directors with regard to risk management are: Setting risk strategy, determination of the Bank's risk appetite, approval of the risk management and control framework consistent with the risk management, control and mapping policy, and setting principles in specific policy documents for risk management for each risk, to guide the Bank in its day-to-day operations. The Board of Directors supervises and controls management actions and their consistency with Board policy, ensures that clear areas of responsibility and reporting paths are in place at the Bank, instills an organizational culture supportive of risk management which demands implementation of high standards of professional behavior, integrity and fairness, ensuring that the Bank is operating in compliance with the Law and regulation.

The Board of Directors operates through multiple professional committees, tasked with conducting comprehensive and in-depth discussion of the various matters before they are brought for discussion and approval by the Board plenum.

Risks Management Committee

A committee which advises the Board of Directors, discusses matters concerning risk management and control at the Bank and risk strategy, including current and future risk appetite, capital planning and management. The Committee also supervises how executive management implements the risk strategy.

The committee is responsible for approval of the Bank's risks mapping and approval of dedicated policy documents for each of the Bank's material risks. These documents specify the corporate governance, the nature of the risk and the risk appetite adjusted for strategic operations, as well as the risk management and measurement processes and methods applied by the Bank to mitigate it, including effective monitoring and control processes.

The committee conducts a quarterly discussion of the Bank's risks document, which presents an overview of the current and future risk profile and concise, clear reporting of all risks and their evolution over time, with emphasis on events in the reported quarter, on the quarterly and annual risks document and on the annual ICAAP (Internal Capital Adequacy Assessment Process) document and results of the Bank of Israel Uniform Stress Scenario and its impact on Bank data, profitability and stability of Bank capital.

The committee regularly receives extended reviews on various topics. The committee also discusses new products subject to approval by the Board of Directors, new and revised regulatory directives and guidance with regard to risk management at the Bank, significant debriefs which took place with regard to risk management and any other topic of relevance to risk management at the Bank.

IT and Technology Innovation Committee

The Committee discusses and advises the Board of Directors on matters of technology risk strategy, IT policy and management and technology innovation, including information and cyber security policy and strategy, technology infrastructure at the Bank Group, administration and use of data bases, technology innovation in support of business innovation, and aligning these with the overall strategy and policy of the Bank Group, including targets, annual work plans and resources, with regard to IT and technology innovation. The summary risk overview discussed by the Committee is reported semi-annually to the Board of Directors' Risk Management Committee.

Audit Committee

The Committee acts to ensure that the Bank maintains the internal control framework, so as to ensure proper conduct of Bank operations. The Audit Committee is tasked with supervising the work of the Bank's Internal Auditor and that of the Bank's Independent Auditor. Thus, the committee discusses the Bank's financial statements and risks report and makes its recommendation to the Board of Directors with regard to its approval. The Audit Committee discusses work plans of internal audit and of the Independent Auditor, as well as audit reports of the Internal Auditor, the Independent Auditor as well as those of the Supervisor of Banks or any other competent authority. The Audit Committee points out faults in business management at the Bank, including those arising from organizational shortcomings, in consultation with the Internal Auditor or with the Independent Auditor and proposes to the Board of Directors ways to amend them.

Credit Committee

The committee is responsible for approval of the credit policy document (by joint discussion with the Board of Directors' Risks Management Committee) prior to bringing it for approval by the Board of Directors. It is also tasked with approval of credit applications which deviate from limits specified in the credit policy. The committee also discusses credit control reports and current credit reports, as well as general credit-related topics.

Union Bank Onboarding Committee

An ad-hoc Board of Directors' committee, that was established and operated in 2022 to assist the Union Bank merger, being a material, complex and large-scale process associated with a wide range of risks. This committee concluded its activity in the first quarter of 2023.

Remuneration Committee

The Committee discusses and makes recommendations to the Board of Directors on remuneration policy for officers and employees. The committee also approves the terms of office and employment of officers (prior to approval by the Board of Directors).

President & CEO

The Bank President & CEO is responsible for on-going management of Bank operations, subject to policies set by the Board of Directors and subject to guidance from it, in particular with regard to implementing the Bank's strategy and business plans. In this regard, the President & CEO is responsible for management of all risks at the Bank, for leadership of management and risks managers in comprehensive and integrative management of risks and capital and implementation of an effective internal controls system.

The Bank President & CEO receives regular, current reviews and reports at least about the Bank's risk profile in such layout and timing as stipulated by Board resolutions and in conformity with Proper Conduct of Banking Business Directives. The Bank President & CEO is responsible for reporting to the Board of Directors, in conformity with the outline specified in Bank procedures, including reporting concerning risk management by the Bank and, in particular, any unusual events and/or deviations from the risk appetite.

Bank management

Bank management is tasked with ensuring that Bank operations are in conformity with the business strategy and targets specified by the Board of Directors and within the specified risk appetite. Management is responsible for regularly managing the material risks facing the Bank. Each Risks Officer, in his own area, is responsible for implementation of the principles specified by the Bank Board of Directors for addressing such risks. Formulating risks management policy, setting limits and guidelines, deployment and implementation of risks management and control processes, reporting on the risk profile in the normal course of business and under stress scenarios, and approval of new products and activities prior to the launch thereof.

The Bank's organizational structure is designed to support achieving the Bank's business targets while maintaining proper risks management and control processes.

Note that in similar fashion to business processes, risks management processes are not static, but rather change and evolve constantly, both due to local regulation and/or global practice and in conformity with business needs.

The Bank operates risks management committees at all management levels. These committees act as professional management forums, designed to foster discussion of issues related to risks management and control and to promote the necessary moves for on-going upgrade of the Bank's risks management framework.

Chief management committees include: Regular weekly management forum, Senior Credit Committee, the Asset and Liability Management Committee, the Overseas Affiliates Committee, the Management Committee for Operational Risk Management, the Management Committee for Risk Management, which discusses in particular the quarterly Risks Document. The Chief Risks Officer and other representatives of the Risks Control Division, as the case may be, are also members of these committees. The committees operate in normal times and during emergency, in conformity with detailed procedures.

Chief Risk Officer (CRO)

The Manager, Risks Control Division serves as the Bank's Chief Risks Officer (CRO) and is responsible for the risk management and control function and for the risk management framework at the Bank. The Risks Control Division is a key foundation of the Bank's second line of defense, acts independently of the risk-taking units. The CRO has direct access to the Bank President & CEO and to the Bank Board of Directors, through direct, regular reporting processes. The CRO is responsible for maintaining appropriate risks management and control at the Bank, for maintaining a Bank-wide reporting platform, with active involvement in the capital planning process and responsibility to ensure that all processes are taken to ensure that the Bank's risk profile is compliant with the risk appetite, as specified by the Board of Directors.

The CRO is responsible for ensuring that effective processes are in place for identification, measurement, monitoring and control, mitigation and regular reporting of all risks inherent across all business operations at the Bank, and that the Bank risk profile is in line with the risk appetite.

The CRO is responsible for specifying the Bank's risk appetite framework, including leading the creation of all policy documents on risk management and control, challenging material processes and risks at the Bank, including challenging capital planning, challenging work plans and challenging the strategic plan. Also analysis of material failure events and debriefing and learning lessons arising from such events.

The CRO is directly responsible for multiple risks associated with internal control risks at the Bank. He is also responsible for control over credit risks and credit analysis, as an independent party to credit approval.

Compliance Officer

The Compliance Officer heads the Compliance Department (reporting to the Manager, Risks Control Division) whose role is to assist Bank management and the Board of Directors in effective management of compliance risk.

The Compliance Officer acts in conformity with a letter of appointment approved by the Board of Directors, to deploy a compliance culture at the Bank, its subsidiaries and overseas affiliates by implementing a Group policy, to deploy a compliance culture across the organization and to supervise implementation of appropriate compliance processes at subsidiaries and affiliates.

The Compliance Officer handles issues of Bank compliance with obligations arising from securities law, economic competition law and privacy protection in general, and in accordance with the enforcement program in particular.

The Compliance Officer is a member of different forums at the Bank, in order to ensure an enterprise-wide view of various compliance aspects. In order to ensure compliance with all statutory provisions, the Compliance Officer maintains a control system in line with control plans. These controls are designed to verify compliance of the Bank with various statutory provisions, as well as the effectiveness of controls applied by the various business and headquarters departments.

Internal Audit Division

Internal Audit is the third line of defense within corporate governance for risks management, reporting directly to the Bank Board of Directors and acting to test the effectiveness of the internal control framework at the Bank. This is typically done in retrospect, using various tools in accordance with a multi-annual risk-focused work plan based, inter alia, on the outcome of the ICAAP process, Internal Audit reports, audit reports by external parties, as well as inquiries and reviews by various entities at the Bank, including risk surveys. The Audit findings and recommendations are sent to the Chairman of the Board of Directors, Chairman of the Audit Committee, Bank President & CEO, the CRO, the Chief Accountant and to relevant recipients at the Bank and implementation of these recommendations is monitored.

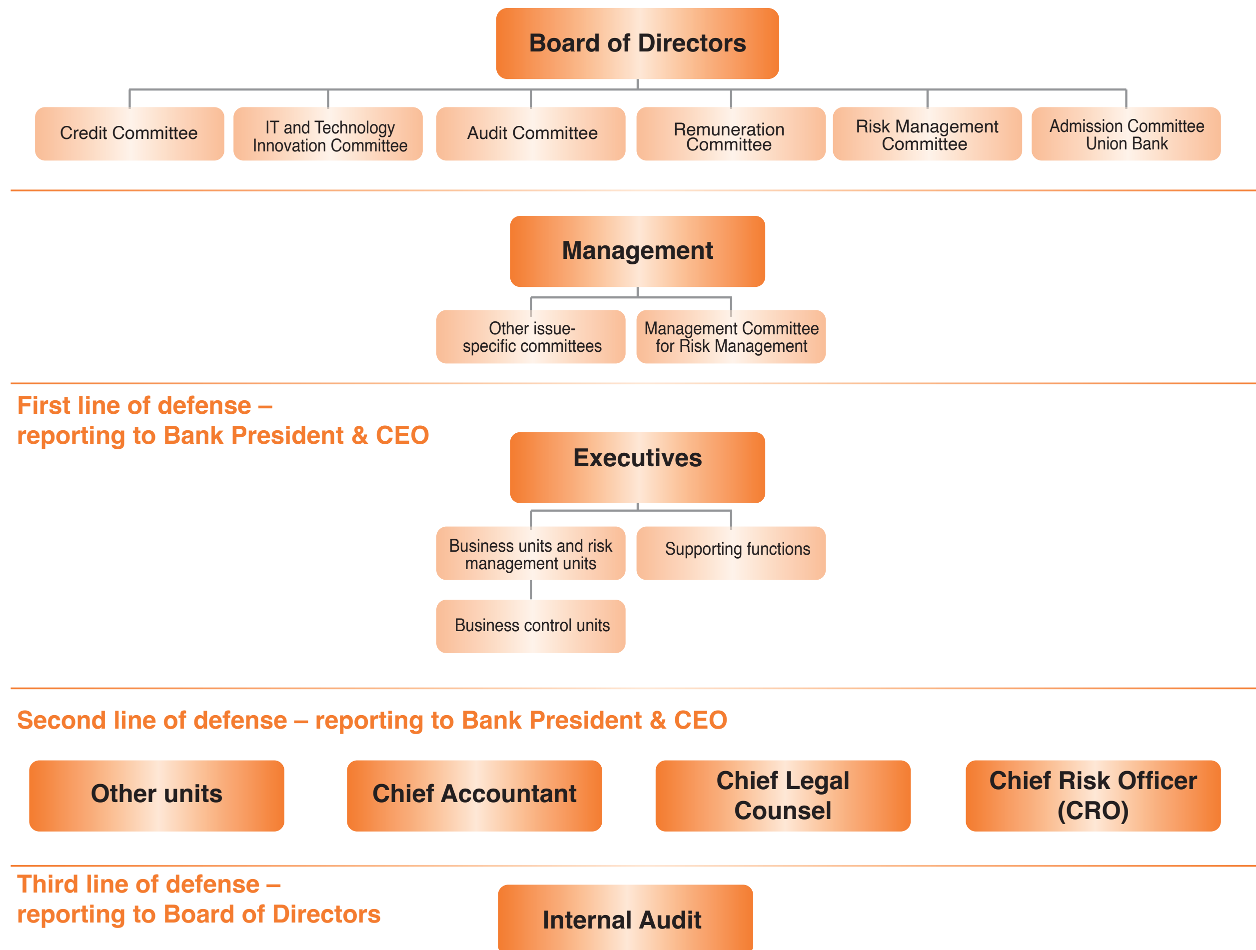
For more information about operations of the Internal Audit Division, see chapter "Corporate governance" in the financial statements.

Other forums for risks management and control operating at the Bank

As part of corporate governance for risks management and in line with the Bank's overall framework policy on risk management and control, the Bank has other forums for risks and capital management and control, including:

- Internal controls forum – maintaining integration of diverse Bank entities responsible for implementing an internal controls framework at the Bank.
- Capital planning and management forum – monitors the development of Bank capital in view of Bank targets.
- Risks Monitoring Forum (RMF) – diverse forums by specific risk, led by the Chief Risks Officer together with business unit managers, who engage in approval of methodology for risk management, stress scenarios and the outcome thereof, review of generally accepted practice and regulation, model validation and recommendations on implementation, approval of policy documents and procedures and operational risk aspects, including the risk map, risk assessment surveys, material events and lesson learning processes, as well as various other issues arising from risks management and internal controls of each business unit.
- Dedicated compliance-related forums, including cross-border risks management.
- Operational risks steering committee – advisory committee to the CRO on operational risks.
- Cyber and information security steering committee – advisory committee to the CRO on cyber and information security risks.

Organizational structure for risk management at the Bank:



Risk management culture at the Bank

Principles of risk management organizational culture at the Bank are based on the overall risk management framework and on corporate governance supportive of efficient risk management, increased risk awareness, identification and handling of evolving risk and informed risk taking. These principles include reporting between different entities which provide risks management, including the Bank's Board of Directors, Bank President & CEO, executive management and the three lines of defense. The Bank constantly acts to develop and reinforce its risks management processes, to create a risks management culture in line with Bank operations and in support of achieving the Bank's business targets. Risks management is an integral part of regular Bank operations and the Risks Control Division is involved in material processes at the Bank in all areas.

This activity is reflected, *inter alia*, in these processes:

- Challenging of business and strategic processes – The Risks Control Division challenges the strategic plan, annual work plans and capital planning, as well as material projects and projects, such as business and technology projects.

  The Division also monitors heat maps to identify major risks associated with operations of the various divisions, monitor and mitigate such risks and their impact on realization of business plans.
- Approval process for new product or a new activity at the Bank (and for revision of an existing product or activity) – A new product has the potential for deviating from the specified risk management and control framework and in particular, from the risk appetite. Therefore, the Bank's Board of Directors and management have specified, in the general

framework policy on risk management and control, how the Bank addresses a new product or activity, used by the Bank to assess the impact of launching the new product or activity on all risks mapped by the Bank, including reference to business, operating, technology and compliance aspects associated with such launch. The effect of the new product / activity on the Bank's current risk profile determines how it would be approved: products and activities having potential material effect on the Bank's risk profile are approved by the Board of Directors.

- Risks surveys – periodic processes whereby risks surveys are conducted in various areas: both in operational and technological areas and those related to compliance and internal controls. These surveys are supporting tools for dynamic, active management of the risks map.
- Debriefs and ad-hoc tests – A continuous internal process maintained by the various lines of defense conducts debriefs and ad-hoc tests, following materialization of internal or external failure events, including events which occur in the global banking system. Learning lessons from these events, to be applied by the Bank. Material debriefs conducted with regard to risks management are brought for discussion by the Bank's Board of Directors.
- Reporting system – Reporting and communicating risk-related information is a key pillar of the Bank's capacity to manage its risks. The Bank has a specified set of reports, in the general framework policy on risk management and control, specifying the required reports under normal conditions, in case of an exceptional event and under stress (emergency) conditions between all lines of defense specified by the Bank, as needed and in conformity with potential situations.
- The quarterly risks document is a report used as a primary tool by management and by the Board of Directors to maintain effective monitoring of Bank operations and compatibility of the risk profile with the specified risk appetite and risks management framework. This document includes the following: Clear, concise presentation of developments in the current and future risk profile vs. risk appetite, both quantitative and qualitative, with reference to major and emerging risks in the banking world, risk meters showing the distance from the specified limit, reporting of exceptions and actions taken by management's to return to the outline, results of stress scenarios and forward-looking analysis to review Bank stability, material lessons learned with regard to various risks, monitoring of Bank activities to bolster the effectiveness of risk management and control, and material issues raised in the ICAAP process, in conformity with risks identified in the risks map, and other quantitative / qualitative information with regard to anticipated developments at the Bank and/or in the banking system.
- Emergency conduct – The Bank has policy documents and structured procedures to ensure business continuity in times of emergency, both systemic emergencies, such as: geo-political event, earthquake, epidemic, cyber event etc. and Bank-specific events, such as failure of Bank systems. The Bank also has a procedure for business activity in case of a financial stress event in the markets, and special emergency forums that would be activated at the Bank by the Risks Managers in case of occurrence, or potential occurrence, of such events related to credit, market and liquidity risk.
- Training – Maintaining a comprehensive training system, consisting of different means, including: remote eLearning kits, custom training with regard to risks management, regulation and internal controls, dedicated seminars etc. In addition, constant contact is maintained between Risks Managers at headquarters and field units, in particular with representatives of each Bank unit appointed to be responsible for various risk areas, to disseminate operating principles and to communicate information to the various units.
- Information systems – risks management and monitoring using controlled, computer-based systems with minimal dependence on manual processes and with near-real time update frequency. The Bank has many measurement systems used to estimate all material risks to which the Bank is exposed, as well as IT systems to support risks monitoring and reporting.

The Bank's risk management policy and culture, as described in this chapter, apply to all risk types and to all Bank units. Later on in this report we include further specific references to each risk type individually. The Bank has in place a remuneration policy designed to ensure that remuneration of Bank employees is consistent with the Bank's risk management framework. For more information about remuneration policy for all Bank employees other than officers for the 3 years through December 31, 2023, approved by the Board of Directors in July 2021, see Note 22 to the 2022 financial statements.

For more information about the remuneration structure at the Bank and how it supports the risk management culture, see chapter "Remuneration" below.

Deployment, limitation and enforcement of risk culture

The Bank has various action options and means to reinforce, deploy and enforce the risk culture across the different lines of defense, including, *inter alia*:

- Maintain regular contact between business functions in the first line of defense and risk control functions in the second line of defense.
- Regular reporting procedures in case of materialization of unusual events, including approaching the limits or deviation from the risk appetite. These procedures are in addition to the policy documents and include, other than the reporting chain, the management process for handling such events.
- Regular, structured mapping of all Bank of Israel regulations on various topics, the person in charge of each regulation and the various lines of defense in charge of proper handling of all of the risks.
- Maintaining regular contact between risks control functions in the second line of defense, and the internal audit function, which is the third line of defense, in the Internal Control Forum and by specific discussions to identify and discuss lateral risk hubs and material specific events.
- Internal Audit conducts, as part of the organized Audit work plan, specific audit of activity of the Risks Control Division, including over the ICAAP process, as part of the independent overview. These include a review of the effectiveness of control, deployment of the organizational culture across the lines of business, processes for handling events and so forth.
- Compliance Officer's Report – this report is quarterly discussed by management and by the Board of Directors' Audit Committee, and annually by the Board of Directors' plenum, highlighting activities in various compliance areas, including enforcement of securities laws and the Economic Competition Law. This report is from a Group-wide view point and combines operations of the Bank, its subsidiaries and overseas affiliates.
- The Chief Risks Officer conducts an annual discussion, in person, with the Board of Director's Audit Committee.
- The Compliance Officer conducts an annual discussion, in person, with the Board of Director's Audit Committee.
- The Chief Accountant conducts an annual discussion, in person, with the Board of Director's Audit Committee.
- The Chief Legal Counsel conducts an annual discussion, in person, with the Board of Director's Audit Committee.

Hedging and risk mitigation

The organizational culture for risks management and corporate governance at are significant means for risks mitigation at the Bank. Proper corporate governance supports the risks management culture and processes for risks management and control at the Bank are efficient, comprehensive and ensure its stability over time. A strong risk management culture and regular communications processes between the three lines of defense are key features of appropriate risk management governance. All risks to which the Bank is exposed are regularly and effectively managed and monitored by the relevant units.

The Bank's business model is based on the business strategy and overall risk appetite principles of the Bank.

The Bank is acting in conformity with the outline of the five-year strategic plan for 2021-2025.

Bank management regular monitors the achievement of work plan targets. Bank results in 2022 indicate that the Bank has surpassed the business objectives set in the strategic plan.

The Risk Control Division maintains regular processes to challenge the work plans and achievement of strategic plan targets.

Rapid evolution of technological developments and customer behavior in recent years has been changing the landscape of the financial world in terms of increased competition. These changes impact the survivability and nature of banks in future. Such technology changes, as well as growing competition in the financial world, may impact the Bank's business model in the long term.

To this end, the Bank acts in systematic fashion, in the permanent steering committee on innovation, designed to monitor activity in the banking system, mapping of technology gaps and regular review of alternatives to be recommended for Bank operations, in line with the Bank's strategic principles. This is based on a strategic perception of the customer experience, reinforcing the trust-based relationship with customers, while providing the best service experience, with a choice of relevant products and services available.

The Bank has the business, legal and operating infrastructure to manage these exposures and to take proactive action to mitigate and/or hedge risk, in order to limit its exposure. The Bank has flexibility in management of physical assets as well as financial assets and liabilities, and in making changes to risk assets and capital, in the course of normal operations, so as to achieve the strategic targets.

Code of Ethics

Full transparency is a prerequisite of corporate governance, and in particular as relates to efficient risks management. Policies of proper disclosure of events, support processes and appropriate organizational structure create regular work interfaces which support the Board of Directors and allow it to discharge its duties. The Bank's Board of Directors and management promote, throughout the organization, a high level of ethics and integrity. One of the key means for instilling ethics and integrity is the preparation of the Bank's Code of Ethics and its deployment among all Bank employees.

In late 2019, Bank management and the Bank Board of Directors revised the Code of Ethics. The key changes are as follows: Highlighting the values of excellence, professional and service-oriented approach, adding a new value – social and community responsibility, including activity regarding doing business from the viewpoint of social and environmental benefit through, *inter*

alia, promoting recycling processes, improved energy efficiency and reducing consumption, reference to all stake holders at the Bank and reference to manager responsibility for ethical conduct at their units. The Bank also operates the Ethics Committee convenes monthly, consists of representatives from HQ units and branches, and acts to regularly deploy the Code of Ethics by publishing dilemmas to Bank staff, discussing dilemmas raised from the field and reviewing the deployment process of the Code of Ethics.

Scope and key features of risks measurement system

In general, it is Bank policy to manage and to monitor risks using controlled, computer-based systems with minimal dependence on manual processes and with near-real time update frequency.

The Bank has many measurement systems used to estimate all material risks to which the Bank is exposed, as well as IT systems to support risks monitoring and reporting, as described below in this report for each risk type separately:

Reporting risk information to the Board of Directors and to management

The risk management culture at the Bank includes the set of reports by various entities which comprise the risk management system, including: The Bank Board of Directors, Bank President & CEO and management, as well as the Bank's three lines of defense.

Below are the principles for the Bank's reporting system:

- Maintain effective communications processes between different pillars, for effective information sharing by reporting, stipulated in conformity with the nature of the risk and the needs of the Board of Directors and management, so as to allow them to make informed decisions.
- Reporting information in a complete, understandable and accurate manner, at the frequency and layout as specified.
- Individual reports on the individual risk level, and overview reports.
- Providing disclosure with regard to significant assumptions underlying the report, as well as any limits on risk estimates.
- Regular review of the volume and quality of information received by the Board of Directors, to ensure that risk-related information is conveyed in a concise, clear manner

Specific policy documents for each risk faced by the Bank, including reference to the set of reports based on these principles, and based on the Reporting Framework, as follows:

- Current reports – current reporting processes at a specified frequency, as specified in risk control and management policy documents and in operating procedures for the various risks. These reports include, *inter alia*, reports for the quarterly risks document for the Board of Directors, reports for Bank management, reports for the Board of Directors' Risk Management Committee and for the Board plenum, as well as reports for various forums involved in risk management and control.

  The Bank's quarterly risks document is the main reporting tool by Bank management with regard to the risk profile given the risk appetite. This document also presents a qualitative and quantitative view over development of all risks benchmarks specified; in discussions, emphasis is placed on benchmarks which are getting close to the risk appetite limits, the implications of such closeness on the risk profile and action required in order to reduce the risk level.
- Exception reporting – material exceptional events, deviating from normal operations, which may impact Bank operations or reputation.
- Emergency reporting:
  - Business continuity – When the Bank is required to apply its Business Continuity Plan (BCP), the system is required to be used in line with existing action plan at the Bank, including unique reporting chains, customized for the situation, as specified in the Bank's BCP policy.
  - Financial emergency – a condition requiring special measures due to unusual changes in financial activity and/or financial or other unusual event, which may impact the markets, increasing the potential exposure to loss by the Bank due to various risks, should they materialize.
  - The ICAAP document, which is presented annually and submitted to the Bank of Israel, includes qualitative and quantitative comments with regard to all risk aspects at the Bank.

Use of stress scenarios in risk management

Stress scenarios are risk management techniques used to assess Bank exposure to risks, both currently and from a forward-looking viewpoint. Stress scenarios allow the Bank to understand the impact of various stress events on Bank stability and provide an additional integral tool to approaches, benchmarks and models used in risk management. The outcome of stress scenarios are used by the Bank to challenge the risk appetite and capital planning, to identify significant risk concentrations and weaknesses in the portfolio, provide a tool to support business decision making and provide an additional tool for risks measurement in quantitative models for identification of risks not identified by the models. The Bank has a diverse range of methodologies for conducting stress scenarios, calculated to assess the potential impact of various risks to the Bank's business and financial targets.

System-wide scenario

In line with customary world-wide practice, the Supervisor of Banks annually conducts a uniform macro-economic stress scenario for the banking system. This process contributes to understanding the risk concentrations to which the banking system and the individual banking corporation are exposed, and is designed to test the bank's capacity to perform the scenario and to incorporate it into risk management processes.
In December 2022, the Supervisor of Banks published a uniform macro-economic stress scenario, originating from a global shock due to disruption to supply chains and the war in the Ukraine, resulting in world-wide shortage of basic raw materials and causing sharply higher inflation and economic slow-down. In response to the higher prices, central banks in Israel and around the world continue to adopt a restrictive monetary policy and sharply raise interest rates. Continued slow-down in local and global activity, along with sharply higher unemployment, impact to private consumption and lower prices of shares and bonds. These, along with curbing the inflation, cause the central banks to change direction and to sharply lower interest rates, in an attempt to revive economic activity and to prevent an even worse recession. Towards the end of the scenario, activity in Israel and world-wide recovers, inflation returns to its normal track and accordingly, the Bank of Israel starts to gradually raise interest rates.
Results of the stress scenario, showing the expected evolution of the Bank's balance sheet, profitability data and capital and leverage ratios throughout the scenario, as well as the methodology documents, are to be provided to the Bank of Israel as required, in March 2023.

ICAAP process (Internal Capital Adequacy Assessment Process)

ICAAP is an internal process for assessment of capital requirements (Pillar 2 of capital assessment under Basel directives), designed to ensure that overall capital at the Bank is in line with its risk profile, specified capital targets and business targets, in conformity with the work plan and with current capital planning. This is done both in the normal course of business and under stress scenarios. Moreover, this pillar includes qualitative assessment processes for the level of various risks, the quality of their management, and the direction of their evolution for a one-year horizon, as well as creation of the risk map and identification of risk hubs.

The ICAAP document is extensively discussed and approved by Bank management, Board committees (Risks Management Committee and Audit Committee) and by the Board of Directors plenum. The document was submitted to the Bank of Israel in late 2022 and includes qualitative and quantitative references to all risk aspects at the Bank.

The ICAAP document consists of several chapters which describe corporate governance for risks management at the Bank, concise qualitative and quantitative analysis of material risks to the Bank, the capital targets, current risk profile and from a forward-looking perspective for 2023, as well as developments during the year in conformity with the risk self assessment process and presentation of the Bank's overall risk map. Capital planning and risk assessment in the annual ICAAP document are prepared from a Group viewpoint.

The key part of the ICAAP document is the internal capital planning process, applied to a three-year forward planning horizon, from June 30, 2022 through June 30, 2025. This framework was used to calculate the required capital allocation with respect to each of the risks, from the requirements specified in Pillar 1 with additional capital required with respect to Pillar 2. Pillar 2 includes capital allocation for risks not included in Pillar 1, such as: Credit concentration risk and interest risk in the banking portfolio and additional capital allocations with respect to risks included in Pillar 1, but the Bank assumes require additional capital allocation. The capital allocation is calculated both for normal conditions and for stress scenarios. Stress scenarios are applied at variable frequency, intensity and levels, from scenarios at the individual risk level, a system-wide scenario to test concurrent materialization of multiple risks, based on the Bank of Israel Uniform Scenario, and through to application of stressed scenarios. These scenarios are intended to ensure that the Bank has sufficient capital cushions to survive even stressed scenarios, with high impact and very remote likelihood of materializing, and that the Bank is in compliance with the limit on Tier I equity ratio for the stressed scenario – minimum Tier I equity ratio of 6.5%. The Bank also applies reverse stressed scenarios test (RST) scenarios that consider, based on the Bank's risk profile, which event may bring the Bank close to the Tier I equity limit for the stressed scenario.

The annual internal assessment process at the Bank to review capital adequacy indicates that the Bank has sufficient capital to face the various risks associated with Bank operations, both in the normal course of business and under stress scenarios. Over the entire planning period, the Bank has available total capital higher than the total capital required by ICAAP, even after applying stress and stressed scenarios. Moreover, the Tier I capital ratio under the stressed scenario, for each year of the scenario period, does not drop below 6.5%.

Risk management and control policy documents

In 2022, Bank management and the Bank’s Board of Directors approved all of the Bank's risk management and control policy documents. Changes to policy documents were primarily due to updates to Proper Conduct of Banking Business Directives, expectations and instructions of the Supervisor of Banks, actions to reinforce the risk management and control infrastructure and risk mitigation processes across the various lines of defense.

Risk factor severity

The Bank has specified a framework for risks management and control by the Group, which includes mapping of material risks and their materiality threshold, as well as assignment of Risk Owners for all risks. For each risk, the Bank estimates its potential impact on business operations over the coming year.
The table below lists the risk factors, executives appointed as Risk Owner (RO) for each one and management assessment of the impact of each risk factor, on a scale of five risk levels: Low, Low-medium, Medium, Medium, Medium-High and High. The Bank assesses risk levels based on the estimated impact (potential impact) on Bank capital, during the year under scenarios of different magnitudes, under business as usual conditions and under stress conditions, based on the severity levels set forth in the general framework for risk management and control. Note that the impact of potential damage on Bank equity is assessed by reviewing both quantitative and qualitative benchmarks, including the quality of risk management, emergency plans in place and the Bank's capacity to rapidly and dynamically respond to minimize damage upon materialization of stress events. The assessment of risk level for each risk is subjective, with some of the risks having clear quantitative benchmarks and other with a more significant subjective assessment. This is in conformity with the Bank's annual ICAAP process and its outcome, including self-assessment of risk levels, quality of risk management processes and risk control, including direction of risk development over the coming year and alignment with work plans of the various departments. These results are extensively discussed by Bank management and Board of Directors.

Below is a mapping of risk factors, their potential impact on the Bank Group and executives appointed Risk Owners for each risk factor:

Risk factor	Effect of the risk factor	Risk owner
Overall effect of credit risks(1)	Medium	Manager, Corporate Division
Risk with respect to borrower and collateral quality	Medium	
Risk from industry concentration(1)	Low-Medium	
Risk with respect to concentration of borrowers / borrower groups	Low	
Risk with respect to mortgage portfolio	Low-Medium	
Overall effect of market risk	Low-Medium	Manager, Financial Division
Interest risk	Medium	
Inflation risk	Low-Medium	
Foreign currency risk	Low	
Liquidity risk	Low-Medium	Manager, Financial Division
Overall effect of operational risk	Medium	Manager, Risks Control Division
Cyber and information security risk	Medium	Manager, Risks Control Division
IT risk	Medium	Manager, Mizrahi Tefahot Technology Division Ltd.
Legal risk	Low-Medium	Chief Legal Counsel
Compliance and regulatory risks(2)	Low-Medium	Manager, Risks Control Division
Reputation risk(3)	Low	Manager, Marketing, Promotion and Business Development Division
Business-strategic risk(4)	Low-Medium	President & CEO

(1) Includes concentration in construction and real estate sector.
(2) Includes AML and terror financing risk and cross-border risk.
(3) The risk of impairment of the Bank's results due to negative reports about the Bank.
(3) The risk of impairment of the Bank's results due to negative reports about the Bank.
(4) The definition of business-strategic risk includes the capital planning and management process.

Below are major developments with regard to risk factors during the reported period:

In 2022, the Bank's risk assessment and overall risk profile were slightly higher. This was primarily due to uncertainty with regard to impact of global geo-political stress, the state of the global and local economies, changes to the macro-economic environment, market volatility and uncertainty regarding the development and impact thereof on the Bank that may affect credit and financial risks.

In recent months, more uncertainty was added to this uncertainty, in view of Government plans to promote changes to the judicial system and the public disagreement with regard to this move. At this stage it is too early to assess the developments and impact of these events on Israel's economy.

The overall effect of credit risk and risk associated with quality of borrowers and collateral remained Medium.

Despite the significant decrease in impact of the Corona Virus crisis on economic activity in Israel and on business and economic activity at the Bank, the current risk assessment remained Medium and is slightly higher than previously due to changes to the macro-economic environment in Israel and world-wide and continuation of the Russia-Ukraine war, which increase uncertainty in the market. Interest rates continue to rise and inflation in Israel and world-wide continues to be high, primarily due to fluctuation in energy and commodity prices around the world. These changes may affect Bank operations, further increase borrowing costs and affect credit risk.

Risk level in the mortgage portfolio increased from Low to Low-Medium, due to uncertainty with regard to potential future impact of higher interest rates and inflation on borrowers' repayment capacity, due to how material the mortgage portfolio is for the Bank, and even though at this time, the risk measures do not point to material deterioration or material change in the risk level. The Bank constantly reviews the risk measures and risk levels, adapting them as required to current business activity, subject to and in line with the risk appetite, and should the potential future risk decrease, the risk level in the residential mortgage portfolio would decrease back to Low.

The overall risk level of market and interest risk remained Low-Medium. Interest risk increased from Low-Medium to Medium, due to the higher interest rates, high uncertainty and potential impact for borrower and depositor behavior. Note that in 2022, the Bank completed onboarding of Union Bank's nostro portfolio, which includes *inter alia* exposure to corporate bonds and shares. The exposure level in this portfolio, relative to Bank capital, is Low-Medium.

Due to continued uncertainty with regard to potential developments in changes in the macro-economic environment in Israel and world-wide and continuation of the Russia-Ukraine war, and their impact on the Bank, close monitoring of potential future impact of such changes on Bank activity and risk assessment continues, even to a higher degree.

The assessment of the total impact of credit risks and sector concentration includes the risk assessment with respect to Bank exposure to the construction and real estate sector. The Bank is mostly focused on extending credit for construction using the financial support method (closed assistance). Most of the credit risk in the construction and real estate sector is backed by real estate fully pledged to secure loan repayment, and for credit not secured by real estate collateral, there is other collateral in place, such as: deposits, securities etc.

In 2022, the Bank continued to expand its lending operations in the construction and real estate sector, while adhering to appropriate underwriting procedures and credit spreads to reflect the risk and is regularly monitored.

The Bank assessment is that these operations have no material impact on the Bank's overall credit risk. (and this risk is not assessed as a separate risk in the risk factors table). The share of the construction and real estate sector in Israel out of total credit risk to the public at the Bank remained relatively low at 15.3% (compared to 14.7% at end of 2021 and to 14.1% at end of 2020).

For more information about this risk, see chapter "Credit risk" in the Report of the Board of Directors and Management.

Liquidity risk remained low-medium. Since early March, the alert level at the Bank was raised to Yellow, due to the continued war in the Ukraine and due to market volatility and further interest rate increases. In practice, no events and/or indications were observed which would indicate realization of a liquidity event. In the fourth quarter and throughout 2022, the Bank maintained appropriate liquidity by investing excess liquidity in liquid assets of very high quality – Level 1 assets. The average liquidity coverage ratio (consolidated) for the fourth quarter of 2022 was 118%. Net stable funding ratio (on consolidated basis) as of December 31, 2022 was 115%. No deviations from the risk appetite limitations were recorded.

In 2022, technology risk remained Medium. This is a material risk for the Bank, and the potential damage due to materialization of such risk may be significant under normal circumstances, and even more so during emergencies. Technological activity is focused on changing needs in line with the Bank's business strategy, and taking most of the steps to mitigate potential risk in as much as possible. Note that the Union Bank merger project, which entailed material technology risk, was concluded and in actual fact, there were no material events related to technology.

Information security and cyber risk – In 2022, this risk remained Medium. In this quarter, a small number of fraud attempts against customers (through fishing attacks) were identified, in which their account credentials were stolen in order to conduct un-authorized transactions in their accounts. Thanks to defensive measures applied by the Bank, despite these fraud attempts, no unauthorized transactions in customer accounts were identified.

The Bank continues to reinforce the defense mechanisms applied in Bank systems, in order to further limit the ability to defraud customers and to conduct un-authorized transactions in customer accounts. These actions are part of the debrief and lesson learning processes in place at the Bank with regard to this evolving threat.

The Bank's information security team operates fully and continuously throughout the year, constantly improving and bolstering defense capabilities and mechanisms, in conformity with expansion of threats and challenging needs which the Bank is required to face. Note that despite the increase in cyber risk world-wide and in Israel, due inter alia to increased use of cloud environments, increased remote working and more sophisticated attacks, primarily ransom attacks – the actions taken by the Bank in recent years have maintained risk at the Bank unchanged.

In 2022, compliance and regulatory risk remained Low-Medium. On May 9, 2022, the Bank of Israel issued a circular with regard to AML and terror financing risk management (amendment of Proper Conduct of Banking Business Directive 411). Due to increase in customer activity involving virtual currency and since the Supervisor of Banks regards payment services provided by banking corporations incidental to activity involving virtual currency as carrying high risk with regard to AML and prohibition of terror financing, the amendment to the Directive stipulates the unique requirements of the banking system with regard to AML and prohibition of terror financing risk management associated with providing payment services involving activity in virtual currency. The amendments to this Directive apply as from November 9, 2022 and the Bank has completed

preparations to comply with the Directive on said date. Application of the circular is not expected to have any material impact on the Bank's financial statements.

The Bank continues to monitor the sanction list (including sector-specific sanctions) published with regard to the Russia-Ukraine war by the USA, EU and the UK and applies these as part of the Bank's risk management policy.

In 2022, reputational risk remained Low, with the Bank constantly monitoring various benchmarks and indicators with regard to the Bank's reputation, including activity of competitors in the market, media coverage of interest rate increases and its various effects on the mortgage and deposit market, and impact of regulatory steps (such as: the mortgage track reform). To date there was no material impact on the Bank's reputational risk.

Legal risk is the risk of loss due to exposure to fines, lawsuits and/or punitive action due to breach of contract or disagreements. Legal risk also includes risks arising from legal exposure due to Bank conduct with its various stakeholders (such as: customers, suppliers and other third parties).The Bank's Legal Division regularly analyzes the legal risk components, the risk boundaries (arising, for example, from the counter-party identity, from creation of collateral etc.) as well as specific risk attributes while reviewing its risk level and exposure with attention to the different lines of business at the Bank and provides current legal advice to the Bank and its various units. In 2022, legal risk remained Low-medium.

Developments in management of business operations

Strategic plan

On April 26, 2021, the Bank’s Board of Directors approved a strategic 5-year plan for 2021-2025, based on the following:

- Position the Bank as a key player in business banking, based on supporting action including: set up operations for investments in non-banking corporations, lead large and complex transactions and expand the Bank's international operations at its branches in London and in the USA in areas focused on business banking;
- Establish leadership position of the Bank Group among households: Maintain the leadership position in the mortgage market while introducing innovations in products and processes, and increasing synergies with commercial operations, expand operations among target populations and set up a desk for unique consumer credit products;
- Provide personal, human banking services supported by advanced digital technology, including optimal combination of human and digital channels, with human service by expert bankers, including in digital, in accordance with customer choice and needs, as well as offering personalized value propositions across all channels, which are customized for customer needs.
- Adapt the operational model to future challenges and improve operational efficiency, including through relocating Bank headquarters to the central campus in Lod, adapt the branch structure to future challenges, optimize real estate, automate bank operations and streamline the work environment.
- Leverage the Union Bank merger to create operational and business synergy and to realize economies of scale.

Bank results in 2022 indicate that the Bank has surpassed the business objectives set in the strategic plan.

For more information about the Bank's strategic plan for 2021-2025, see chapter "Business goals and strategy" of the Report of the Board of Directors and Management for 2022 and Immediate Report dated April 27, 2021 (reference no. 2021-01-071448).

Union Bank merger

On September 30, 2020, the Bank completed the proposed exchange tender for Union Bank shares and acquired 100% of the issued and paid-in share capital of Union Bank and of voting rights in Union Bank. In 2022, the merger of Union Bank into the Bank continued. This includes continued integration of Union Bank customers at the Bank, closing of all Union Bank branches, and transfer of other operations, in as much as possible, from Union Bank to Mizrahi Tefahot, including Union Bank's nostro operations.

The merger transaction was a material, large-scale and highly complex process which entails a wide range of risks. The merger process was carried out by several extensive joint work teams of Bank Mizrahi Tefahot and Union Bank, managed by a steering committee headed by the Bank President & CEO, with administrations established to carry out the merger plan and a designated Board committee established to supervise this process. The process of customer transition, started in the second quarter of 2021, was gradual and concluded with IT transition of banking activity from Union Bank systems to Mizrahi Tefahot systems, including any accounts not previously transitioned. The automated conversion processes were conducted with close on-going supervision both by the lines of defense of the Bank – the Risks Control Division and Internal Audit – and by external experts hired to provide control, with emphasis on ensuring integrity of conversion of all customer-related aspects.

The Bank managed the merger project gradually and separately from current business, in order to allow for achievement of the work plan targets concurrently with the merger process.

On August 1, 2022, the process of merging Union Bank insurance agencies with and into Tefahot Insurance Agency Ltd. of Bank Mizrahi Tefahot Group was concluded.

After the balance sheet date, on January 15, 2023, the merger of Union Systems Ltd. with and into the Mizrahi Tefahot Technology Division Ltd. (a Bank Group company) was completed.

On December 29, 2022, the merger of Union Bank with and into the Bank was completed. Upon completion of the merger, Union Bank ceased to exist as a separate legal entity, and all its assets and obligations have been assigned to the Bank.

For more information about retirement program for Union Bank employees, see chapter "Significant developments in human resources and administration" below.

For more information about the agreement signed by Igud Systems Ltd. and Mizrahi-Tefahot Technology Division Ltd. and the Employee Union of Union Bank Systems Ltd., which governs onboarding of Igud employees, see chapter "Significant developments in human resources and administration" below.

Macro-economic developments

In 2022, the outbreak of demand after the Corona Virus crisis, together with higher prices of commodities, food and energy due to the war in the Ukraine, resulted in higher inflation around the world. Due to this higher inflation, central banks adopted restrictive monetary policies, including higher interest rates and discontinued plans to purchase bonds. This was in order to curb demand and to bolster the local currency.

The global trend of higher inflation reached Israel, too, although to a lesser extent compared to most OECD countries. In response, the Bank of Israel started, in the second quarter of 2022, a string of interest rate increases, from 0.1% up to 4.25% in early 2023.

There is concern that such sharp, rapid interest rate increase would slow down the economy, increase unemployment and reduce trade – which would be reflected in shrinking import and export.

The higher interest rate environment and more costly loans, along with price increases in the market, affect public consumption and may impact private consumption. The change in Bank of Israel interest rates increases monthly mortgage payments and the repayment ratio to total borrower income. Higher cost of financing in the real estate sector may increase credit risk in projects under way, and may curb new project starts.

Update to Proper Conduct of Banking Business Directive 451 regarding "Procedures for extending residential mortgages"

In November 2021, the Bank of Israel issued an update regarding procedures for extending residential mortgages (update to Proper Conduct of Banking Business Directive 451), designed to enhance transparency and to aid customers in making informed decisions in the process of obtaining a mortgage. The update to the Directive refers to multiple aspects, including: Simplicity to enhance customer understanding, transparency and uniformity of information for the customer, to enable comparison of offers from multiple banks, online tools to be used by the customer and shorter time frame for providing approval in principle.

The Directive specifies 3 uniform baskets which banking corporations are required to offer to customers in the approval in principle, and the bank is allowed to offer one or more tracks without restrictions imposed by the Bank of Israel. based on the bank's discretion as to the mix appropriate for the customer. The amendments to the directive also include an instruction to banking corporations to provide to the public an online calculator which allows for simulation of various loan mixes over various time frames, including the uniform tracks stipulated in the directive, so as to obtain an estimate of the impact of changes to the loan mix on the monthly payment and total amount payable throughout the loan term. Calculated loan repayments would include estimated effect of inflation and interest rate updates under the variable interest tracks, in conformity with forecasts based on the capital market with regard to future developments of these parameters.

The Bank applied the Directive with respect to various business and operating aspects, as from August 31, 2022.

Adoption of US GAAP with regard to provisions for expected credit losses (CECL)

As from January 1, 2022 the Bank applies the new directive. For more information see Note 1 to the financial statements (Reporting rules and accounting policy).

Overview of weighted risk assets (OV1) (NIS in millions)

	Risk weighted assets		Minimum capital requirements[1]
	December 31, 2022	September 30, 2022	December 31, 2022
Credit risk (standard approach)[2]	225,684	218,977	28,272
Counter-party credit risk (standard approach)	2,437	3,159	305
Credit risk value adjustment (CVA)[3]	1,230	1,393	154
Settlement risk	7	–	–
Amounts lower than discount threshold (subject to 250% risk weighting)	5,025	4,887	628
Total credit risk	**234,383**	**228,416**	**29,359**
Market risk (standard approach)	1,301	1,497	163
Operational Risk[4]	16,567	15,369	2,071
Total	**252,251**	**245,282**	**31,593**

(1) Capital requirement in conformity with required overall minimum capital ratio of 12.5%.
(2) Credit risk excludes counter-party credit risk, credit risk value adjustment and amounts lower than the deduction thresholds.
(3) Credit Value Adjustments – mark to market with respect to credit risk of counter-party, in conformity with Basel III provisions.
(4) Capital allocation with respect to operational risk was calculated using the standard approach.

The change in risk assets in the fourth quarter of 2022 was primarily due to growth in the business loans and to growth in residential mortgage portfolio.

For more information about links between financial statements and supervisory exposures, see Addendum A below.

Additional information about weighted risk assets

Below is the movement in weighted risk assets during the period, for each type of weighted risk asset (NIS in millions):

	For the year ended December 31	
	2022	**2021**
Movement in credit risk assets		
Balance as of January 1	202,611	185,392
Change in credit exposure risk assets	27,702	16,043
Change in securities exposure risk assets	113	(66)
Change in derivatives exposure risk assets	(191)	(660)
Change in off-balance sheet exposure risk assets	223	1,172
Change in CVA	701	42
Regulatory changes	2,716	-
Other effects	508	688
Credit risk assets at end of period	234,383	202,611
Movement in operating risk assets		
Balance as of January 1	13,831	12,864
Change in revenues from financing operations (including commissions)	2,536	900
Change in non-interest financing revenues	288	23
Change in gross revenues of subsidiaries	(88)	44
Operating risk assets at end of period	16,567	13,831
Movement in market risk assets		
Balance as of January 1	2,268	2,228
Change in equity risk	4	-
Change in basis risk	(53)	(448)
Change in interest risk – general market risk	(947)	518
Change in options risk	29	(30)
Market risk assets at end of period	1,301	2,268

Capital and leverage

Composition of supervisory capital

For more information about the link between the balance sheet and supervisory capital components, see Addendum B below.

		December 31, 2022	December 31, 2021
Tier I equity: Instruments and retained earnings			
1	Ordinary share capital issued by the banking corporation and ordinary share premium for shares included in Tier I equity	3,618	3,573
2	Retained earnings, including dividends proposed or announced after the balance sheet date	20,676	17,500
3	Cumulative other comprehensive income and retained earnings disclosed	(497)	(270)
5	Ordinary shares issued by consolidated subsidiaries of the banking corporation, which are held by a third party (non-controlling interests)	543	447
6	**Tier I equity before regulatory adjustments and deductions**	24,340	21,250
Tier I equity: Supervisory adjustments and deductions			
8	Goodwill, net of any deferred tax liabilities	87	87
9	Other intangible assets, excluding mortgage service rights, net of deferred tax liabilities payable[1]	60	80
10	Deferred tax assets to be realized based on future profitability of the banking corporation, excluding deferred tax assets due to temporary differences	–	6
11	Accumulated other comprehensive income with respect to cash flows hedging of items not listed at fair value on the balance sheet	–	(12)
14	Un-realized gains and losses from changes to fair value of liabilities arising from changes to the banking corporation's own credit risk. Furthermore, with regard to liabilities with respect to derivative instruments, all accounting value adjustments (DVA) arising from the bank's own credit risk should be deducted	6	5
21	Deferred tax assets arising from temporary differences, whose amount exceeds 10% of Tier I equity	–	–
26	Supervisory adjustments and other deductions stipulated by the Supervisor of Banks[1]	(885)	(885)
26.C	Of which: Additional supervisory adjustments to Tier I equity, not included in sections 25.A. and 25.B.	–	–
28	**Total supervisory adjustments and Tier I deductions**	(732)	(719)
29	**Tier I shareholders' equity**	25,072	21,969
44	**Additional Tier I capital**	–	–
45	**Tier I capital**	25,072	21,969
Tier II capital: Instruments and provisions			
46	Instruments issued by the banking corporation (not included in Tier I capital) and premium for such instruments	2,150	2,006
47	Tier II capital instruments issued by the corporation qualifying for inclusion in supervisory capital during the transition period	–	447
48	Tier II capital instruments issued by subsidiaries of the banking corporation to third-party investors	3,287	3,480
49	Of which: Tier II capital instruments issued by subsidiaries of the banking corporation and held by third-party investors, gradually deducted from Tier II capital	–	–
50	Group provisions for credit losses by effect of related tax	2,578	1,981
51	**Tier II capital before deductions**	8,015	7,914
Tier II capital: Deductions			
57	**Total deductions from Tier II capital**	–	–
58	**Tier II capital**	8,015	7,914
59	**Total capital**	33,087	29,883
60	**Total risk weighted assets**	252,251	218,710
Capital ratios and capital preservation cushions			
61	Tier I shareholders' equity	9.94%	10.04%
62	Tier I capital	9.94%	10.04%
63	Total capital	13.12%	13.66%

		December 31, 2022	December 31, 2021
Minimum requirements stipulated by the Supervisor of Banks			
69	Minimum Tier I equity ratio required by Supervisor of Banks	9.60%	8.60%
70	Minimum Tier I equity ratio required by Supervisor of Banks	9.60%	8.60%
71	Minimum capital ratio required by the Supervisor of Banks	12.50%	11.50%
Amounts lower than the deduction threshold (before risk weighting)			
72	Investments in capital of financial corporations (other than banking corporations and subsidiaries thereof), up to 10% of ordinary share capital issued by the financial corporation, which is below the amortization threshold	3	100
73	Investments in Tier I equity of financial corporations (other than banking corporations and subsidiaries thereof), over 10% of ordinary share capital issued by the financial corporation, which is below the amortization threshold	3	3
75	Deferred tax assets created due to temporary differences, which is below the amortization threshold	2,007	1,759
Cap for inclusion of provisions in Tier II			
76	Provision qualifying for inclusion in Tier II with regard to exposures under the standard approach, before application of the cap	2,785	1,981
77	Cap for inclusion of provision in Tier II with regard to exposures under the standard approach	2,930	2,533
84	Current cap for instruments included in Tier II capital subject to transition provisions (pursuant to transition provisions of Directive 299)	–	1,195
85	Amount deducted from Tier II capital due to cap	36	2,334

Report on movements in supervisory capital components during the period, including changes to Tier I equity, Tier I capital and Tier II capital (NIS in millions):

	December 31, 2022	December 31, 2021
Tier I capital		
Balance as of January 1	21,969	20,137
Changes to capital components:		
Issuance of ordinary share capital and share premium	22	52
Change in capital reserve from benefit from share-based payment transactions	24	(11)
Net profit for the period	4,472	3,188
Dividends	(941)	(1,236)
Adjustments from translation of financial statements of associates	–	(1)
Capital reserve from securities available for sale	(555)	16
Capital reserve from cash flows hedging	12	(23)
Capital reserve with respect to employee rights	316	(100)
Others, including regulatory adjustments	(1)	(2)
Non-controlling interests	96	15
Acquisition of a controlling interest in Union Bank	–	–
Changes to effect of supervisory adjustments and deductions		
Deferred taxes	6	–
Goodwill and intangible assets	20	121
Accumulated other comprehensive income with respect to cash flows of items not listed at fair value on the balance sheet	(12)	20
Accumulated gains or losses from changes to fair value of liabilities, arising from change to the Bank's credit risk	(1)	23
Others	–	5
Acquisition of a controlling interest in Union Bank	–	(235)
Balance as of end of period	**25,072**	**21,969**
Tier II capital		
Balance as of January 1	7,914	7,176
Deduction of equity instruments	(195)	(853)
Changes to group provisions for credit losses before related tax effect	597	(334)
Issue of equity instruments	701	1,925
Redemption of bonds with contingent conversion	(1,002)	–
Balance as of end of period	**8,015**	**7,914**

Supervisory capital

Supervisory capital is composed of two tiers: Tier I capital (including Tier I equity and Tier I additional capital) and Tier II capital.

Tier I capital includes equity attributable to equity holders of the Bank and the interest of external shareholders in equity of subsidiaries (excess capital at subsidiaries is not taken into account).

Tier I capital includes supervisory adjustments and deductions from capital – goodwill, investments in capital components of financial institutions, cumulative other comprehensive income with regard to cash flow hedges for items not presented at fair value on the balance sheet adjustments with respect to liabilities for derivative instruments, due to change in the Bank's credit risk (DVA) and other supervisory adjustments and deductions.

Additional Tier I capital consists of equity instruments which fulfill the requirements specified in the directives. As of December 31, 2022, the Bank had no capital instruments included in additional Tier I capital.

Tier II capital consists of a group provision for credit losses and equity instruments which fulfill the specified requirements.

Restrictions on capital structure:

- Tier II capital shall not exceed 100% of Tier I capital after required deductions from such capital.
- Capital instruments qualified for inclusion in Tier II capital shall not exceed 50% of Tier I capital after required deductions from such capital.

Bank approach to capital adequacy assessment

The risks management and control framework at the Bank, as recommended by the Basel Committee, specifies three pillars for capital adequacy assessment:
Pillar 1 – minimum capital – minimum capital allocation requirements with respect to credit risk, market risk and operational risk calculated by standard models.
Pillar 2 – Supervision and control process over capital adequacy, the Internal Capital Adequacy Assessment Process (ICAAP) conducted by the Bank, as well as the Supervisory Review and Evaluation Process (SREP).
Pillar 3 – "market discipline" – reporting and disclosure requirements to supervisory entity and to the public.

Minimum capital ratio requirement

Capital ratios are calculated as the ratio of capital to weighted risk assets. Tier I equity ratio us calculated as the ratio of Tier I equity to weighted risk assets, and the total capital ratio is calculated as the ratio of total capital to weighted risk assets.

As per instructions of the Supervisor of Banks, the Bank is required to maintain a minimum Tier I equity ratio of no less than 9% and a minimum total equity ratio of no less than 12.5%.

An additional capital requirement was added to the Tier I equity ratio at 1% of the residential mortgage balance as of the report date, except for residential mortgages, which are subject to relief provided in the interim directive for addressing the Corona Virus crisis.

Regulatory directives that impact capital adequacy ratios

Circular concerning Proper Conduct of Banking Business Directive 250 "Adjustments to Proper Conduct of Banking Business Directives for addressing the Corona Virus (Interim Directive)"

Due to the Corona Virus outbreak and as part of adaptations of Proper Conduct of Banking Business Directives, the Supervisor of Banks issued Proper Conduct of Banking Business Directive 250 which includes, inter alia, an interim directive with regard to update to Directive 201, including reduction of minimum capital requirements applicable to banks by one percentage point, and update to Directive 329, eliminating the capital requirements of one additional percentage point for residential mortgages for purchase of a residential apartment extended from March 19, 2020 through September 30, 2021 and for general purpose residential mortgages extended as from March 19, 2020.

Over the crisis period, the Supervisor of Banks issued updates extending validity of the interim directive, and on December 27, 2021, the Supervisor of Banks issued a circular whereby the interim directive expired as from January 1, 2022. Furthermore, an update was made to Proper Conduct of Banking Business Directive 329 regarding "Restrictions on residential mortgages" whereby the additional capital requirement at 1 percentage point would only apply to residential mortgages and would not apply to residential mortgages other than for purchasing interest in real estate and by mortgage on an apartment (hereinafter: "General-purpose loan").

Consequently, the Bank's current required minimum ratio of Tier I equity ratio and minimum total capital ratio as of December 31, 2022 are 9.60% and 12.50%, respectively.

As from January 1, 2022 the Bank applies the new directives with regard to expected credit losses (CECL).

For more information about effect of application of these directives on supervisory capital, see Note 25 to the financial statements.

Circular regarding update to Proper Conduct of Banking Business Directive 203 "Capital measurement and adequacy" – Standard approach – credit risk

On May 22, 2022, the Supervisor of Banks issued a circular updating Proper Conduct of Banking Business Directive 203 ("Capital measurement and adequacy – Standard approach – credit risk"). According to the circular, loans designated for purchase of land for development or construction, with an LTV higher than 80% of the purchased property value, shall carry an increased risk weighting of 150%.
See Note 25 to the financial statements for additional information.

Circular revising the directive with regard to the standard approach for calculation of counter-party credit risk exposure (SA-CCR)

On July 24, 2022, the Supervisor of Banks issued a circular updating the Public Reporting Directives, following the issue of Directive 203, which became effective as from July 1, 2022, which revises the calculation of capital requirements with respect to derivative instruments.
See Note 25 to the financial statements for additional information.

For more information about issue and redemption of CoCo subordinated notes, see Note 25 to the financial statements.
For more information about dividends, see Note 25 to the financial statements.

Capital planning and management

The Bank manages the capital adequacy ratio so as to comply with minimum capital requirements of the Supervisor of Banks. Bank capital is subject to changes due, *inter alia*, to the following:

- Growth in business activity.
- Actuarial changes due to changes to interest rates used to calculate Bank liabilities with respect to employees benefits, or other actuarial assumptions such as: mortality rates, retirement rates and so forth.
- Impact of changes to capital reserves from bonds available for sale due to changes in interest rates.
- Impact of changes to inflation and exchange rates on the Bank's risk asset balances.
- Impact of changes to the State of Israel's credit rating on the risk weighting assigned to Israeli corporations, which is based on the State rating.

The Bank regularly monitors its capital adequacy and leverage ratio, in order to ensure compliance with requirements of the Supervisor of Banks, as well as to prepare in advance to respond to evolution of risk assets and capital requirements at the Bank. To this end, the Bank's Board of Directors has specified a policies document which set the principles required for management of the capital adequacy ratio and the leverage ratio, as well as the Bank's capital targets ("risk appetite"), which provide a safety margin beyond the minimum regulatory requirements for capital and leverage. The policy document specifies the safety margins for planning, as well as the required reports and actions to be taken should the capital ratio drop below the minimum required. Capital management and planning is conducted by a special forum headed by the Manager, Finance Division (CFO) and including the Manager, Risks Control Division (CRO), Manager, Financial Information and Reporting Division (Chief Accountant) and managers of business divisions at the Bank. On-going capital planning is based on the assumptions in the Bank's work plan, subject to capital and leverage targets and to the dividend distribution policy.

The Bank prepares a detailed, multi-annual capital planning forecast, taking the following into consideration: Expected growth rate of risk assets and profitability, the strategic plan, dividend distribution policy, capital and leverage targets, appropriate safety margins and other factors.

The Bank regularly monitors actual vs. forecast results, and revises the forecast as needed, considering any required action to comply with the specified capital targets.

The Risks Control Division conducts processes to challenge the capital planning which review, *inter alia*, the appropriateness of safety margins used in capital planning; the outcomes of these processes are brought for discussion by the Capital Management Forum, by Bank management and by the Board of Directors' Risks Management Committee.

Below is analysis of the impact of changes on Tier I equity ratio as of December 31, 2022:

	Impact of change by NIS 100 million in Tier I equity	Impact of change by NIS 1 billion in total risk assets
Bank (consolidated data)	0.04%	0.04%

Raising of capital sources

As part of the Bank work plan, determined by the Board of Directors and including growth targets for diverse areas of operation, the Bank assesses the impact of achieving these targets on total risk assets at the Bank and, consequently, on the capital adequacy ratio. Accordingly, along with business and profitability objectives, a plan is set to raise capital sources in order to maintain capital adequacy, in accordance with instructions of the Board of Directors concerning capital adequacy.

The plan includes issue of contingent subordinated notes (Contingent Convertibles – CoCo) as needed and should ensure that the overall capital ratio would not be lower than the minimum capital ratio required by the Supervisor of Banks. This information constitutes forward-looking information, as defined in the Securities Law, 1968, based on assumptions, facts and data (hereinafter jointly: "assumptions") brought before the Bank’s Board of Directors. These assumptions may not materialize due to factors which are under the Bank's control.

Leverage ratio

The Bank applies the rules in Proper Conduct of Banking Business Directive 218 with regard to leverage ratio, which adopts the Basel Committee recommendations with regard to leverage ratio, stipulated in January 2014.

The leverage ratio is reflected in percent, defined as the ratio of Tier I capital to total exposures. Total exposure for the Bank is the sum of balance sheet exposures, exposures to derivatives, to financing transactions for securities and off-balance sheet items.

According to the directive, banking corporations must maintain a leverage ratio of 5% or higher on a consolidated basis.

On November 15, 2020, the Supervisor of Banks issued a circular regarding "Adjustments to Proper Conduct of Banking Business Directives for addressing the Corona Virus (Interim Directive)", updating Proper Conduct of Banking Business Directive 250, whereby the leverage ratio shall be at least 4.5% on consolidated basis, compared to 5% prior to this change.

On May 15, 2022, the Supervisor of Banks issued another circular, whereby this relief shall apply through June 30, 2024, provided that the leverage ratio would be no less than the leverage ratio as of December 31, 2023, or the minimum leverage ratio applicable to the banking corporation prior to the Interim Directive, whichever is lower.

The Bank's leverage ratio as of December 31, 2022 is 5.42%, compared to 5.18% as of December 31, 2021.

Comparison of assets on balance sheet and exposure measurement for leverage ratio (NIS in millions):

	NIS in millions	
	As of December 31, 2022	As of December 31, 2021
Total assets according to consolidated financial statements	428,292	392,271
Adjustments with respect to financial derivatives	2,612	333
Adjustments with respect to securities financing transactions	-	-
Adjustments with respect to off-balance sheet items	29,358	29,729
Other adjustments	2,748	1,617
Exposure for leverage ratio	463,010	423,950

Composition of exposures and leverage ratio (NIS in millions):

	As of December 31, 2022	As of December 31, 2021
On-balance sheet exposures		
Assets on balance sheet	423,160	387,501
Amounts with respect to assets deducted to determine Tier I capital	(147)	(173)
Total on-balance sheet exposures	**423,013**	**387,328**
Exposures with respect to derivatives		
Subrogation cost for all transactions with respect to derivatives	2,972	3,808
Additional amounts with respect to future potential exposure for all transactions with respect to derivatives	5,113	1,542
Gross-up of collateral provided with respect to derivatives, deducted from assets on the balance sheet in conformity with Public Reporting directives	-	-
Deductions of receivable assets with respect to variable cash collateral provided in derivatives transactions	-	(1,638)
Exempt central counter-party leg of commercial exposures disposed by the customer	-	-
Adjusted effective par amount of credit derivatives written	281	249
Adjusted effective par offsets and deduction of additions with respect to credit derivatives written	-	-
Total exposure with respect to derivatives	**8,366**	**3,961**
Exposure with respect to securities financing transactions		
Gross assets with respect to securities financing transactions (without offsets), after adjustment for transactions accounted for as an accounting sale	2,273	2,932
Offset amounts of cash payable and cash receivable from gross assets with respect to securities financing transactions	-	-
Credit risk exposure for central counter-party with respect to securities financing assets	-	-
Exposures with respect to transactions as agent	-	-
Total exposure with respect to securities financing transactions	**2,273**	**2,932**
Other off-balance sheet exposures		
Off-balance sheet exposure in par value, gross	98,930	105,760
Adjustments with respect to conversion to credit equivalent amounts	(69,572)	(76,031)
Off-balance sheet items	**29,358**	**29,729**
Capital and total exposure		
Tier I capital	**25,072**	**21,969**
Total exposure	**463,010**	**423,950**
Leverage ratio		
Leverage ratio in conformity with Proper Conduct of Banking Business Directive 218	5.42%	5.18%
Minimum leverage ratio required by the Supervisor of Banks	4.50%	4.50%

Credit risk

This chapter discusses credit risk, in conformity with disclosure requirements of the Basel Committee and the FSB; the chapter structure and topic order (adjusted for the nature of Bank operations) are also in conformity with these requirements.

The chapter "Counter party credit risk" below includes qualitative and quantitative disclosures about the capital requirement with respect to this risk and adjustment to capital requirements with respect to credit risk (CVA).

General information regarding credit risk quality (CRA)

Credit risk is the risk that a borrower or counter party of the Bank would not meet their obligations to the Bank. Credit risk is a material risk for Bank operations. This risk is affected by these major factors: Business risk due to customer activities, concentration risk due to over-exposure to a borrower / borrower group and to economic sectors, geographic concentration risk, risk due to exogenous changes which mostly involve changes to the borrower's macro-economic environment, environmental risks and climate risks, overseas credit risks and operational risks which, should they materialize, would have implications for credit risks. Moreover, such risk is interrelated to multiple other risks, such as market and interest risk, liquidity risk, compliance risks and other risks.

Credit is at the core of banking activity, and therefore this is the primary risk of all risk types addressed by the banking system. Consequently, the lion's share of capital allocated in Pillar 1 is due to credit risk.

Credit risk management – objectives and policies

Mizrahi Tefahot Group has a conservative, stable credit risk profile thanks, *inter alia*, to the composition of its credit portfolio, which is oriented more towards retail and mortgage operations, which account for more than 73% of credit activity at the Bank Group.

As noted above, in April 2021, the Bank's Board of Directors approved a five-year strategic plan for 2021-2025. The Bank's strategic plan has material effect on the nature of credit operations, risk level and business focus on various segments. Bank results in 2022 indicate that the Bank has surpassed the business objectives set in the strategic plan; consequently, the Bank is acting to formulate a new strategic plan.

The credit risks management policy seeks to balance the desire to minimize risks in as much as possible against Bank objectives to maximize profit by extending credit to customers. This is done taking into account affecting factors, such as: the regulatory environmental, market conditions, overall economic conditions, product type and behavior of competing banks.

The Bank's Board of Directors is responsible for setting the Bank's credit policies, which prescribe principles and rules for making credit available and for the management and control over the loan portfolio, in order to preserve its quality and mitigate its inherent risk. These principles and rules enable controlled management of the risks involved in granting loans to borrowers, at the level of the individual borrower, group of borrowers and the level of economic and business sectors – to the level of the entire portfolio. The Bank's Board of Directors annually approves the Bank's credit policy and reviews the need to revise this policy throughout the year, in view of development in the business environment in which the Bank and its customers operate. The credit policies includes other policy documents which discuss the relevant risks to the Bank's credit operations, including: Credit concentration policy, which ensures that the credit concentration level at the Bank is regularly managed and monitored; policy on customer trading activity in derivatives and securities, which stipulates the principles for management and monitoring of Bank customers with activity involving derivatives and securities; collateral policy, which stipulates the principles required for management of customer collateral, safety factors required by transaction type and risk factors; and the environmental risks policy.

Concentration – credit risk consists of multiple layers and requires various entities at the Bank to monitor and take action so as to allow the Bank to control such risk. Therefore, the Bank has specified different quantitative limits for activities involving risk factors.

Business model

The Bank manages its credit operations in multiple segments, primarily: mortgages, business banking, commercial banking, households and small businesses. These segments differ by customer attributes, credit types and credit volumes requested, and by the organizational unit which handles each of these segments. Credit provided to these segments includes business credit, including credit for foreign trade operations and exposure due to operations involving derivatives, retail credit and mortgages. For more information about customer attributes in each segment, see chapter "Supervisory Operating Segments" in the Report by the Board of Directors and Management. The structure of lines of business with regard to credit is based on two divisions, reporting to the President & CEO, as follows:

- Retail Division – This division consolidates the banking activity of individual customers (including international private banking in Israel serving foreign residents) and mortgages and the activity of small business customers. Bank branches and business centers operate under this division in seven geographic regions.
- Business Banking Division – This division handles most banking activity of business customers (including from the construction and real estate sector) who are medium-sized and over and international operations overseas.

Approach to credit risk policy and setting limits

The Bank’s credit risk management policies prescribe principles and rules for making credit available and for the management and control over the loan portfolio, in order to preserve its quality and reduce the inherent risk. This is done taking into account affecting factors, such as: the regulatory environmental, market conditions, overall economic conditions, product type and behavior of competing banks. The policy principles enable controlled management of the risks involved in granting loans to borrowers, at the level of the individual borrower, group of borrowers and the level of economic and business sectors – to the level of the entire portfolio. The credit policies includes other policy documents which discuss the relevant risks to the Bank's credit operations, including: Credit concentration policy, which ensures that the credit concentration level at the Bank is regularly managed and monitored; policy on customer trading activity in derivatives and securities, which stipulates the principles for management and monitoring of Bank customers with activity involving derivatives and securities; collateral policy, which stipulates the principles required for management of customer collateral, safety factors required by transaction type and risk factors; and the environmental risks policy for credit.

The credit policies document is discussed and approved by the Senior Credit Committee and then by the Board Credit Committee and by the Board Risks Management Committee, prior to being approved by the Board plenum. The Senior Credit Committee, headed by the Bank President & CEO, is the most senior forum for credit approval at the Bank. The Credit Risk Owner is the Manager, Corporate Division.

The Manager, Risks Control Division (CRO) is responsible for the policy document. The policy document specifies the risk appetite, consisting of a long list of benchmarks and risk factors relevant to the Bank's credit operations, including: Economic sectors, borrower groups, risk factors in the mortgage portfolio, unique activity types, quality of credit portfolio, overseas operations etc. and other risk factors relevant for the Bank's credit risk profile and its business operations.

Credit risk is also monitored using a range of stress tests, which estimate the potential impact of stress events on the Bank's credit portfolio. This is done, inter alia, in order to review the stability of Bank capital to various stress events and as part of the ICAAP process.

Lines of defense for credit risk management

The Bank's risks management setup consists of all management and control layers at the Bank, from the Bank’s Board of Directors, management and business units to control functions and Internal Audit. The Risks Control Division (headed by the Bank's CRO) is the overall entity tasked with risks management at the Bank, including credit risk management.

In this regard, and in conformity with Proper Conduct of Banking Business Directive 301, the Bank has specified these three lines of defense:

- **First line of defense – credit-related business lines at the Bank**

  Credit at the Bank involves several key areas, supported by an organizational structure based on divisions and units with specific specializations, with credit extended to customers in various operating segments divided among different divisions (Retail, Business) and within those divisions, among different organizational units. Lines of business management are fully responsible for risks management and for implementing an appropriate control environment for its operations. The professional units in each of these customer segments are responsible for regularly verification, monitoring and control of exposure to customers and operating segments for which they are responsible. This line of defense includes specific control units, such as division controllers, control over customers capital market exposures and other control functions. A set of procedures ensures the actual implementation of policy guidelines.

- **Second line of defense**

  Risks Control

  The Risks Control Division acts as the Bank's independent risks management function, thus serving as the second line of defense within corporate governance for risks management. Division operations and responsibilities include the following: With regard to credit risk management, the Division operates through multiple independent units:

  - Credit risks control – *post-factum* assessment, independent of Bank entities which approve credit, of the borrower quality and quality of the Bank's credit portfolio.
  - Analysis – a professional entity tasked with producing an independent opinion for credit to material customers, as part of the credit approval process.
  - Risks Control – responsibility for credit models.

  Financial Information and Reporting Division – Chief Accountant

  The Chief Accountant is responsible for appropriate credit classification and for determination of provisions for credit losses.

  Legal Division

  Responsible for review of implications of statutory provisions and legislative changes for Bank operations and for providing current legal counsel to Bank units, as well as handling lawsuits brought against the Bank.

- **Third line of defense – Internal Audit**

  Internal Audit serves as the third line of defense within corporate governance for risks management, conducting audits of credit risk management as part of its annual and multi-annual work plan.

As part of the credit granting process, transaction data is reviewed in accordance with criteria specified by the Bank. The decision making process for granting credit is hierarchical, from branch level to Board of Directors level. Each unit which provides credit monitors on a regular basis credit repayment in accordance with terms agreed as well as the financial status of the customer, based on their level of indebtedness. Any findings requiring action are reported to the relevant credit entity. In addition, as noted above, the credit granting process involves the Analysis Department, which is part of the Bank's risks management function. This involvement includes (with regard to major credit exposures and to economic sectors, as stipulated by Bank of Israel directives and Bank procedures) independent analysis of credit applications and presentation of conclusions and recommendations in a written document attached to the credit application and brought for discussion by the appropriate credit committee.

The purpose of the credit approval process is to review and assess the risk associated with extending credit to any customer, primarily verifying that the requested credit is in fact appropriate for customer needs and repayment capacity. This review is conducted both for approval of new credit and for renewal of or changes to existing credit.

The guidelines for the process of review and approval of credit applications, as listed in the Bank's credit policy, refer to any case where new credit approval is requested for a customer or renewal of existing credit or changes to credit composition, collateral, AOC and covenants. The general process for review and approval of credit applications includes the following steps:

- Review of the credit objective and its alignment with the requested credit type.
- Review of customer quality: borrower payment ethic, quality of owners and management. Business scope, sector situation, borrower standing in the sector, profitability, financial stability and repayment capacity of existing liabilities and for repayment terms of the requested credit.
- Review of external information sources, as needed.
- Review of the quality of proposed and required collateral and alignment with the requested credit type.
- Review of existing exposure to the customer and to the borrower group and profitability for the Bank at these levels.
- Specification of business terms and conditions, such as: interest rate, commissions etc. And testing of profitability and returns.
- Summary opinion of the business entity, including summary of credit risk associated with the application and how it is addressed / mitigated with reference to stress scenarios at transaction level and at borrower level.
- Recommendation – approve / reject / set conditions / modify in line with residual credit risk and customer profitability.
- Decision.

Credit risk management tools – risk measurement systems

In general, it is Bank policy to manage and monitor risk using controlled computer systems, with minimum dependence on manual processes and with an update frequency that is as close as possible to real time.

The Bank uses computer systems to manage, locate, control and minimize credit risk. The systems are used, *inter alia*, as computer-based control tools to locate changes in rating, flag deviations from credit facilities and collateral differences, and locate development in credit risk arising from various other parameters in development and management of the customer account. There are many systems for control of credit management and risks monitoring, which play an important role in credit management, risks management and control processes. These are he key systems used to control credit management and for risks monitoring:

- System for flagging alerts at account level, such as deviation from maximum open credit.
- Central system for mortgage management, used to originate and manage residential mortgages and mortgages, including built-in controls over the process.
- System used to locate and flag customers with credit risk characteristics.
- Problematic debt system (HOVAV), used to locate, flag and classify problematic debt, management of provisions for credit losses and accounting, business and legal write-offs at the Bank, and to locate and monitor accounts on the watch list based on criteria specified in the system.
- Information system used to alert to business information of a negative nature, collected by D&B and by BDI, with regard to business customers of the Bank.
- Real Estate system for control and management of closed-assistance projects in the Construction and Real Estate Sector.
- System for recording and monitoring financial covenants applicable to customers.
- Custom system in the trading system, used to manage, locate and control exposure with respect to customers active on the capital market.
- IT control systems for international operations, used for management and monitoring of credit exposure at overseas affiliates.
- Criteria model – for business credit rating system used to rate all debt for a single borrower. The customer credit rating is determined by a process of determination of the business quality of the borrower, which is then combined with the collateral coverage ratio to provide a rating that reflects the quality of credit extended to the borrower.
- MADHOM (advanced rating, underwriting and management system) for rating the retail credit portfolio for individuals and small businesses. The system has been deployed in branches and incorporated into lending processes, with credit authorizations specified for high-risk customers based on MADHOM ratings, and the system is being used for monitoring the portfolio.
- Credit application system for retail customers (corporations, private-business customers and individual customers) in the Retail Division – supporting credit application processes at Bank branches.
- Model for determination of differential risk premium – This model was developed by the Bank, based on past empirical data, for rating the individual borrower risk for residential mortgages.

Reports to management and to the Board of Directors

The Bank has specified two limit types for most of these areas. Board of Directors limitation and management limitation, according to the following approach:

Board of Directors' limit – The Board of Directors' limit on risk appetite reflects the maximum exposure allowed by the Bank Board of Directors for all risk areas. The Board of Directors' limit may be modified by the Bank Board of Directors, after discussion of the reasons for the required modification and its implications for the Bank's risk profile, based on developments in business directions of the Bank.

Management limits – Management limits are stricter than the Board limits and are designed to serve as a management tool for close monitoring of credit risk at the Bank and allowing exposures to be reduced even prior to exceeding the risk appetite specified by the Board of Directors. Management limits may be modified by the Bank's Senior Credit Committee, after discussion of the reasons for the required modification and its implications for the Bank's risk profile, based on developments in business directions of the Bank. The Bank regularly monitors compliance with risk appetite limits of the Bank. In case of any deviation from the limits specified by management, the relevant division reports, in conformity with reporting rules specified in the policy, to the various entities. The report includes the reasons for the deviation, implications of the deviation and steps taken, or recommended, in order to remedy the deviation.

Deviation from the Board of Directors limitation is only allowed subject to approval from the Board of Directors or from a Board committee.

Credit quality of credit exposures (CR1) (NIS in millions)

	December 31, 2022			
	Gross balances[(1)]			
	Non-accruing or in arrears 90 days or longer	Others	Provisions for credit losses	Net balances
Debts, except for bonds	2,690	393,974	2,884	393,780
Bonds	–	11,548	–	11,548
Off-balance sheet exposures[(2)]	–	99,117	220	98,897
Total	2,690	504,639	3,104	504,225

	December 31, 2021			
	Gross balances[(1)]			
	Impaired or in arrears 90 days or longer	Others	Provisions for credit losses	Net balances
Debts, except for bonds	2,667	362,598	2,104	363,161
Bonds	–	13,755	–	13,755
Off-balance sheet exposures[(2)]	81	104,387	211	104,257
Total	2,748	480,740	2,315	481,173

(1) Gross balances in conformity with reported carrying amounts on the financial statements for on- and off-balance sheet items, creating exposure to credit risk pursuant to Proper Conduct of Banking Business Directive 203.

(2) Off-balance sheet exposures are before credit conversion factors (CCF)

Details of provision for credit losses with respect to residential mortgages, in conformity with the CECL model. As from January 1, 2022 the Bank applies the new directive. For more information see Note 1 to the financial statements (Reporting rules and accounting policy).

Additional disclosure with regard to credit quality of credit exposures (CRB)

Handling of non-performing loans and collection of debts
The handling of problem loans requires specific focus and professionalism, other than the level that approved or processed the credit extended and collateral received. Initial identification is typically computer-based by designated departments for identification and control in the Corporate Division and in the Retail Division. Identified customers are handled by business divisions or by the Special Customer Sector of the Corporate Division (first line), as the case may be and as specified in Bank procedures.
In order to identify credit risk materializing, or which may materialize, at the Bank, the Bank regularly conducts a process to review and identify debts, based on specified criteria. Some of these criteria require debt to be classified as problematic debt, while others provide a warning and allow the professional entity to exercise discretion. Debts are reviewed by a ranking of authorizations specified in Bank procedures. This authorization ranking includes individual authorizations, from branch and headquarters staff, to authorizations at higher levels with regard to classifications and provisions granted to committees headed by the Manager, Accounting and Financial Reporting Division and to the Bank management committee. The Chief Accountant forms a second line in the classification and provision setting process; he is responsible, in conformity with Proper Banking Conduct Directive 311, for being the independent factor in charge of classification and setting the provision for credit losses.
A computer system which supports application of measurement and disclosure provisions for non-accruing debts, credit risk and provision for credit losses, including in identification and control processes, carries out logical, criteria-based testing and determines defaults for debts classification as debts under special supervision, inferior debt, non-accruing debt or debt in restructuring, as required.
Identification of residential mortgages (mortgages) with risk attributes is automated by identifying criteria for arrears and other qualitative criteria. In early stages of arrears, the Bank applies automated collection processes. Later on, the Bank applies proactive processes, both internal and external, including legal proceedings, if needed.

Debt in arrears – The state of arrears for debt is determined with reference to the contractual repayment terms. Below are three potential states of arrears:
1. Debt, including principal or interest, not paid by 30 days after the specified payment date, with reference to the original debt terms.
2. Deviation from credit facility approved and reported in checking account.
3. Low turnover – for as long as no amounts were credited to the account to cover the debt within the specified period, even if the debt is within the credit facility.

Policy on debt re-structuring and treatment of problematic debt under re-structuring
In order to determine whether a debt re-structuring conducted by the Bank constitutes re-structuring of problematic debt, the Bank conducts a qualitative review of all terms and conditions of the re-structuring and the circumstances thereof, in order to determine whether:
(1) the creditor is in financial duress; and (2) the Bank made a concession to the debtor in conjunction with the arrangement.
In order to determine whether the creditor is in financial duress, the Bank considers if there are any indications that the creditor is in duress upon the re-structuring date, or existence of a reasonable likelihood that the creditor would be in financial duress if not for the re-structuring.
The Bank also concludes that a concession was made to the debtor in conjunction with the arrangement, even if the contractual interest rate was increased in the arrangement – if one or more of the following exists:
- Due to re-structuring, the Bank is not expected to collect the entire debt amount (including interest accrued in conformity with contractual terms and conditions);
- The current fair value of collateral, for debts contingent on collateral, does not cover the contractual debt balance and indicates that the entire debt amount may not be collectable;

The Bank does not classify debt as restructured problematic debt, if the re-structurung results in insignificant delay in repayment considering the payment frequency, the contractual term to maturity and the original term to maturity of the debt. For this matter, if multiple arrangements took place involving changes to debt terms, the Bank accounts for the accumulated effect of previous structurings in order to determine whether the deferral of payments is insignificant.
In general, re-structuring which results in delayed payments by 90 days or longer compared to the contract is considered a re-structuring that results in significant delay in repayment.

Identification and classification of non-accruing debt (in lieu of impaired debt)

The Bank has specified procedures for identification of problematic credit and for classification of debt so as to distinguish between problematic debt, including non-accruing debt, and debt in good standing. According to these procedures, the Bank classifies all its problematic debt and off-balance sheet credit items under these classifications: special supervision, inferior or non-accruing. Debt classified as non-accruing debt, where based on current information and events it is expected that the Bank would not be able to collect all amounts due in conformity with contractual terms and conditions of the debt agreement.

For classification and treatment of problematic credit, the Bank distinguishes between the following:

A. Commercial credit with respect to debt with contractual balance over NIS 1 million

Decisions with regard to debt classification and the required provision are made based, inter alia, on the past-due status of the debt, assessment of the borrower's financial standing and repayment capacity, assessment of the primary debt repayment source, existence of collateral and its status, the financial standing of guarantors, if any and their commitment to support the debt and the borrower's capacity to obtain financing from third parties.

In any case, such commercial debt is classified as non-accruing debt when its principal or interest is in arrears for 90 days or longer, unless the debt is well secured and is in collection proceedings, or if the debt has undergone restructuring of problematic debt.

As from the classification date as non-accruing debt, debt is treated as debt not accruing interest income (such debt is known as "non-accruing debt").

B. Credit to individuals, residential mortgages and commercial credit with respect to debt with contractual balance below NIS 1 million

Decision on debt classification is based on the state of arrears of such debt. To this end, the Bank monitors the arrears days determined with reference to contractual repayment terms thereof.

Such debt, in arrears 90 days or longer, is classified as inferior debt when the Bank does not discontinue accrual of interest income, except for residential mortgages which are classified as debt not accruing interest income when principal or interest with respect there to is in arrears 90 days or longer.

Differences between definitions of arrears and default for accounting and supervisory purposes

- Debt is defined to be "in arrears" for accounting purposes after being 30 days in arrears, and for measurement of capital adequacy, "loans in arrears" are so defined after being 90 days in arrears.
- Off-balance sheet credit would be classified as problematic debt if realization of the contingent liability is "possible" and if debts recognized due to realization of the contingent liability may be classified as problematic. Conversely, off-balance sheet credit exposures would be classified as exposures in arrears for capital adequacy purposes consistently with classification of on-balance sheet exposures of the same borrower.

Provision for credit losses

As from January 1, 2022, the Bank applies generally acceptable accounting practices by US banks with regard to measurement of credit losses from financial instruments, as set forth in topic 326 of the codification (ASC 326) "Financial instruments – credit losses".

As part of the application of this standard, the Bank has put in place procedures for classification of credit and for measurement of provision for credit losses, in order to maintain an appropriate provision to cover expected credit losses with regard to the Bank's loan portfolio. Further, the Bank has put in place procedures to be followed for an appropriate provision to cover expected credit losses with regard to bonds held to maturity and the portfolio of bonds available for sale and certain off-balance sheet credit exposures.

The estimated provision for expected credit losses is calculated over the contractual term of the financial asset, taking into account estimated early repayment.

In developing the estimated expected credit losses, the Bank accounted for the effects of past events, current terms and conditions and reasonable forecasts which can be founded about collectability of the financial assets.

In general, calculation of the provision for expected credit losses is estimated on group basis when assets have similar risk attributes. These attributes include the following: (1) Credit score or rating, either internal or external; (2) risk rating or risk classification; (3) type of financial asset; (4) type of collateral; (5) size; (6) borrower's operating sector.

For each group of financial assets with similar risk attributes, the Bank calculates the provision for expected credit losses using one of the methods for measurement of such provision as allowed by the standard, which the Bank expects should result in the best estimate of provisions for credit losses.

In order to estimate expected credit losses over the contractual terms of the assets, the Bank relies on historical information, reviewing the need to adjust such historical information to reflect the extent to which current conditions and reasonable forecasts which can be founded differ from those in the period when the historical information was assessed.

The Bank has a computer system used to locate and rate debt with existing or potential risk of credit losses. The system is connected to various infrastructure systems at the Bank, combining data to allow for debts review designed to assess their stability and expected cash flows. The new system applies automated processes for identification, review, classification and determination of provisions, including process documentation and hierarchical approvals based on authorities specified in Bank procedures. The system also allows for handling problematic debts not identified by the automated identification processes, but rather using qualitative tests of the Bank's loan portfolio.
For more information about provision for credit losses, including with regard to securities and off-balance sheet credit, see Note 1 to the 2022 financial statements.

Credit risk[2] by economic sector

As of December 31, 2022

Below are details of credit risk by economic sector (NIS in millions):

	Total credit risk[1]				Off balance sheet debts[2] and credit risk (other than derivatives)[3]						
		Of which:							Credit losses[4]		
	Total	**Credit performance rating[4]**	**Credit in good standing other than at performing credit rating**	**Problematic[5]**	**Total**	**Debts**	**Problematic[5]**	**Non-accruing**	**Expenses with respect to credit losses**	**Net accounting write-offs**	**Balance of provision for credit losses**
Borrower activity in Israel											
Public – commercial											
Agriculture, forestry and fishing	1,215	1,179	13	23	1,215	945	23	13	4	3	20
Mining and excavation	982	967	-	15	834	323	15	10	1	-	6
Industry and production	15,185	14,303	283	599	14,878	9,568	599	273	31	90	306
Of which: Diamonds	1,785	1,580	65	140	1,785	1,195	140	76	19	12	36
Construction and real estate – construction[6]	50,120	48,065	1,430	625	50,035	25,918	625	159	118	36	340
Construction and real estate – real estate operations	8,429	8,012	251	166	7,910	7,248	166	106	18	-	116
Electricity and water delivery	9,101	9,051	47	3	8,828	5,223	3	2	16	19	76
Commerce	14,891	13,947	571	373	14,757	11,183	373	169	11	(46)	292
Hotels, dining and food services	1,985	1,807	86	92	1,974	1,532	92	50	-	10	95
Transport and storage	2,476	1,698	608	170	2,451	1,926	170	129	(8)	(12)	81
Information and communications	2,295	2,235	27	33	2,219	1,497	33	28	13	14	28
Financial services	18,924	18,856	45	23	14,696	9,246	23	20	15	47	45
Other business services	7,162	6,761	123	278	7,155	4,798	278	127	40	7	162
Public and community services	3,375	2,992	218	165	3,347	2,705	165	130	44	1	88
Total commercial	136,140	129,873	3,702	2,565	130,299	82,112	2,565	1,216	303	169	1,655
Private individuals – residential mortgages	208,125	205,976	820	1,329	208,125	196,703	1,329	1,329	99	-	902
Private individuals – other	41,047	40,459	360	228	41,043	26,535	228	56	97	67	512
Total public – activity in Israel	385,312	376,308	4,882	4,122	379,467	305,350	4,122	2,601	499	236	3,069
Banks in Israel	3,417	3,417	-	-	1,648	1,149	-	-	-	-	-
Government of Israel	11,065	11,065	-	-	18	18	-	-	-	-	-
Total activity in Israel	399,794	390,790	4,882	4,122	381,133	306,517	4,122	2,601	499	236	3,069
Borrower activity overseas											
Total public – activity overseas	7,371	6,850	482	39	7,171	5,006	39	11	33	33	35
Overseas banks	17,764	17,764	-	-	17,502	17,485	-	-	-	-	-
Overseas governments	1,757	1,757	-	-	300	300	-	-	-	-	1
Total activity overseas	26,892	26,371	482	39	24,973	22,791	39	11	33	33	36
Total	426,686	417,161	5,364	4,161	406,106	329,308	4,161	2,612	532	269	3,105

(1) On- and off-balance sheet credit risk, including with respect to derivatives (NIS in millions): Debts[2] – 329,308; bonds – 14,492; securities borrowed or acquired in conjunction with resale agreements – 315; (on- and off-balance sheet) credit risk with respect to derivatives – 5,773; and Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower indebtedness limits – 76,798.

(2) Loans to the public, loans to governments, deposits with banks and other debts, except for bonds and securities borrowed or acquired in conjunction with resale agreements.

(3) Includes with respect to off-balance sheet credit instruments (included on balance sheet under Other Liabilities).

(4) Credit risk whose credit rating as of the report date matches the credit rating for new credit performance, in conformity with Bank policies.

(5) On- and off-balance sheet credit risk, which is non-accruing, inferior or under special supervision.

(6) Includes on-balance sheet credit risk amounting to NIS 1,352 million and off-balance sheet credit risk amounting to NIS 1,779 million, provided to certain purchase groups in the process of construction and includes off-balance sheet credit risk amounting to NIS 7,310 million for which insurance has been acquired to cover the portfolio of housing bonds and performance guarantees pursuant to the Sale Law from international re-insurers.

Credit risk[2] by economic sector – Consolidated – continued

As of December 31, 2021

Details of credit risk by economic sector – Continued (NIS in millions):

	Total credit risk[1]				Off balance sheet debts[2] and credit risk (other than derivatives)[3]						
		Of which:							Credit losses[3]		
	Total	Credit performance rating[4]	Credit in good standing other than at performing credit rating	Problematic[5]	Total	Debts	Problematic[5]	Non-accruing	Expenses with respect to credit losses	Net accounting write-offs	Balance of provision for credit losses
Borrower activity in Israel											
Public – commercial											
Agriculture, forestry and fishing	1,203	1,179	8	16	1,203	939	16	8	(1)	1	9
Mining and excavation	750	750	-	-	651	158	-	-	(6)	-	4
Industry and production	13,280	12,517	298	465	13,116	7,689	465	300	14	37	188
Of which: Diamonds	1,552	1,390	23	139	1,552	1,031	139	68	8	4	27
Construction and real estate – construction[6]	44,695	43,288	1,004	403	44,603	19,881	403	197	43	(1)	265
Construction and real estate – real estate operations	7,562	7,271	178	113	7,360	6,228	113	84	(16)	1	43
Electricity and water delivery	7,686	7,637	36	13	7,427	4,655	13	1	11	(4)	35
Commerce	14,146	13,410	380	356	13,993	10,531	356	234	(42)	19	231
Hotels, dining and food services	2,082	1,773	142	167	2,082	1,577	167	73	(44)	8	55
Transport and storage	2,877	2,523	140	214	2,858	1,992	214	176	21	10	99
Information and communications	1,864	1,744	27	93	1,807	1,181	93	16	(2)	(2)	35
Financial services	16,457	16,387	28	42	13,165	8,143	42	7	(35)	(20)	129
Other business services	6,211	5,825	213	173	6,192	4,229	173	117	(12)	(8)	102
Public and community services	3,350	2,963	351	36	3,343	2,582	36	19	(13)	(2)	21
Total commercial	122,163	117,267	2,805	2,091	117,800	69,785	2,091	1,232	(82)	39	1,216
Private individuals – residential mortgages	195,368	193,185	883	1,300	195,368	175,599	1,300	-	(133)	7	803
Private individuals – other	38,707	38,201	306	200	38,617	24,842	200	56	(55)	45	254
Total public – activity in Israel	356,238	348,653	3,994	3,591	351,785	270,226	3,591	1,288	(270)	91	2,273
Banks in Israel	3,690	3,690	-	-	2,588	2,333	-	-	-	-	-
Government of Israel	11,827	11,827	-	-	74	74	-	-	-	-	-
Total activity in Israel	371,755	364,170	3,994	3,591	354,447	272,633	3,591	1,288	(270)	91	2,273
Borrower activity overseas											
Total public – activity overseas	5,869	5,437	373	59	5,431	3,305	59	6	(7)	37	41
Overseas banks	9,081	9,081	-	-	7,286	7,260	-		(1)	-	1
Overseas governments	2,438	2,437	-	1	403	403	1	1	-	-	-
Total activity overseas	17,388	16,955	373	60	13,120	10,968	60	7	(8)	37	42
Total	389,143	381,125	4,367	3,651	367,567	283,601	3,651	1,295	(278)	128	2,315

(1) On- and off-balance sheet credit risk, including with respect to derivatives (NIS in millions): Debts[2] – 283,601; bonds – 14,307; securities borrowed or acquired in conjunction with resale agreements – 1332; Assets with respect to derivatives – 3,652; and Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower indebtedness limits – 86,251.

(2) Loans to the public, loans to governments, deposits with banks and other debts, except for bonds and securities borrowed or acquired in conjunction with resale agreements.

(3) Includes with respect to off-balance sheet credit instruments (included on balance sheet under Other Liabilities).

(4) Credit risk whose credit rating as of the report date matches the credit rating for new credit performance, in conformity with Bank policies.

(5) On- and off-balance sheet credit risk, which is non-accruing, inferior or under special supervision.

(6) Includes on-balance sheet credit risk amounting to NIS 1,699 million and off-balance sheet credit risk amounting to NIS 2,096 million, provided to certain purchase groups in the process of construction and includes off-balance sheet credit risk amounting to NIS 5,699 million for which insurance has been acquired to cover the portfolio of housing bonds and performance guarantees pursuant to the Sale Law from international re-insurers.

(7) Re-classified in conformity with new disclosure format for non-accruing debts, in lieu of disclosure for impaired debts.

The following are credit exposures by remaining term to maturity (NIS in millions):

	As of December 31, 2022					
	Up to 1 year	**1-5 years**	**5-15 years**	**Over 15 years**	**Total**	**Average term to maturity (in years)**
ı-balance sheet credit exposure:						
›mmercial	55,630	25,840	5,463	230	87,163	1.54
ivate individuals – residential mortgages	17,909	66,238	214,968	8,634	307,749	11.50
ivate individuals – other	11,986	13,896	5,551	2	31,435	3.81
;sets with respect to derivatives[(1)]	4,112	1,115	500	112	5,839	0.66
ıtal public	**89,637**	**107,089**	**226,482**	**8,978**	**432,186**	**8.49**
ınks and governments	93,699	7,809	5,761	128	107,397	0.65
ıtal credit exposure on balance sheet	**183,336**	**114,898**	**232,243**	**9,106**	**539,583**	**2.23**
which: Bonds	3,149	6,014	5,180	560	14,903	2.93
ıtal off-balance sheet credit exposure	**71,598**	**25,467**	**897**	**1,106**	**99,068**	**1.83**

	As of December 31, 2021					
	Up to 1 year	**1-5 years**	**5-15 years**	**Over 15 years**	**Total**	**Average term to maturity (in years)**
ı-balance sheet credit exposure:						
›mmercial	42,506	24,500	5,929	211	73,146	1.69
ivate individuals – residential mortgages	18,202	52,819	154,149	4,560	229,730	10.32
ivate individuals – other	11,831	12,072	4,242	1	28,146	2.82
;sets with respect to derivatives[(1)]	2,974	322	35		3,331	0.57
ıtal public	**75,513**	**89,713**	**164,355**	**4,772**	**334,353**	**7.49**
ınks and governments	92,950	10,790	7,922	133	111,795	0.82
ıtal credit exposure on balance sheet	**168,463**	**100,503**	**172,277**	**4,905**	**446,148**	**2.24**
which: Bonds	1,799	8,049	5,743	133	15,724	3.79
ıtal off-balance sheet credit exposure	**80,565**	**22,800**	**1,179**	**1,306**	**105,850**	**1.73**

(1) Assets with respect to derivative instruments include derivative instruments of banks and governments.

Exposure to foreign countries[1]

Part A – Information regarding total exposure to foreign countries and exposure to countries for which total exposure to each country exceeds 1% of total consolidated assets or 20% of capital, whichever is lower (NIS in millions):

	Balance sheet exposure[4]									Off-balance sheet exposure[4][5][6]			
Country	Cross-border balance sheet exposure			Balance sheet exposure of Bank affiliates in foreign country to local residents								Cross-border balance sheet exposure	
	To governments[4]	To banks	To others	Balance sheet exposure before deduction of local liabilities	Deduction with respect to local liabilities	Net balance sheet exposure after deduction of local liabilities	Total balance sheet exposure	On-balance sheet problematic credit risk	Impaired debts	Total off-balance sheet exposure	Of which: Off-balance sheet problematic credit risk	Maturing in under 1 year	Maturing in over 1 year
December 31, 2022[2]													
USA	1,318	312	2,919	16,971	-	16,971	21,520	18	-	1,483	-	306	4,243
Barbados[7]	-	-	5,803	-	-	-	5,803	-	-	-	-	-	5,803
Other	11	528	5,038	2,490	1,334	1,156	6,733	42	-	8,932	-	956	4,621
Total exposure to foreign countries	1,329	840	13,760	19,461	1,334	18,127	34,056	60	-	10,415	-	1,262	14,667
Of which: Total exposure to LDC countries	11	-	597	-	-	-	608	2	-	86	-	60	548
Of which: To Greece, Portugal, Spain and Italy	-	1	51	-	-	-	52	-	-	4	-	2	50
December 31, 2021[3]													
USA	8,358	824	2,164	467	4	463	11,809	21	1	742	-	6,971	4,375
Other	-	1,162	4,247	1,945	294	1,651	7,060	72	5	7,573	-	1,058	4,351
Total exposure to foreign countries	8,358	1,986	6,411	2,412	298	2,114	18,869	93	6	8,315	-	8,029	8,726
Of which: Total exposure to LDC countries	-	20	528	-	-	-	548	4	-	54	-	85	463
Of which: To Greece, Portugal, Spain and Italy	-	1	48	-	-	-	49	-	-	6	-	2	47

(1) Based on final risk, after effect of guarantees, liquid collateral and credit derivatives.
(2) On- and off-balance sheet credit risk with respect to derivative instruments is presented after credit risk mitigation, in conformity with revision of Public Reporting Directives in a circular dated July 24, 2022, following publication of Directive 203A.
(3) Reclassified.
(4) On- and off-balance sheet credit risk is stated before impact of provision for credit losses, and before impact of deductible collateral with respect to indebtedness of borrower and of borrower group.
(5) Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower indebtedness limits, in conformity with Proper Conduct of Banking Business Directive 313.
(6) The balance of off-balance sheet exposure includes NIS 7,343 million, mostly with respect to acquiring insurance from international reinsurers for the portfolio of housing bonds for borrowers in the real estate sector in Israel. (As of December 31, 2021: NIS 5,777 million).
(7) This exposure is with respect to insurance policies backing the mortgage portfolios in Israel. The insurer, incorporated in Barbados, is a subsidiary of an international insurance group incorporated in Canada.

Part B – Information regarding countries for which total exposure to each country is between 0.75%-1% of total consolidated assets or between 15%-20% of capital, whichever is lower (NIS in millions):

December 31, 2022	December 31, 2021
–	UK

As of December 31, 2022, there are no foreign countries for which the balance sheet exposure exceeds the threshold for this disclosure. (As of December 31, 2021, the balance sheet exposure with respect to the aforementioned country is NIS 3.2 million)

Part C – Information regarding balance sheet exposure to foreign countries facing liquidity issues

	For the year ended December 31, 2022
	Barbados[1]
Exposure at start of reported period	–
Net changes to exposure	5,803
Exposure at end of reported period	**5,803**

In conformity with Bank of Israel directives, a country which has received aid from the International Monetary Fund is deemed a country with liquidity issues. The aforementioned exposure is to an insurer that backs mortgage portfolios, and liquidity in the country should not affect the repayment capacity in case of future claims by the Bank.

(1) This exposure is with respect to insurance policies backing the mortgage portfolios in Israel. The insurer, incorporated in Barbados, is a subsidiary of an international insurance group incorporated in Canada.

As of December 31, 2021, the Bank had no on-balance sheet exposure to foreign countries facing liquidity issues nor to foreign countries undergoing re-structuring.

The exposure presented above represents, in accordance with directives of the Supervisor of Banks, exposure based on final risk. The party bearing the final risk is an individual, business, institution or instrument which provides "credit reinforcement" to the Bank, such as guarantees, collateral, insurance contracts or credit derivatives. When no "credit reinforcement" exists, the party bearing the final risk is the debtor.

The row "Total exposure to LDC countries" includes total exposure to countries classified as "Less Developed Countries" (LDC) in Proper Conduct of Bank Businesses 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 affiliates of the banking corporation in foreign country to local residents. Cross-border balance sheet exposure includes balance sheet exposure of Israeli offices of the banking corporation to residents of the foreign country and balance sheet exposure of overseas affiliates of the banking corporation to non-residents of the country where the affiliate is located.

Balance sheet exposure of affiliates of the banking corporation in a foreign country to local residents includes balance sheet exposure of affiliates of the banking corporation in that foreign country to local residents, less liabilities of these affiliates (deducted up to the exposure amount).

For more information about movement in balance of the provision for credit losses, aging of credit exposures in arrears and details of credit exposures which have been re-structured, see Note 30 to the 2022 financial statements.

Credit risk mitigation (CRC)

The Bank Group takes different actions to mitigate risks associated with extending credit and with credit concentration. Below is a description of major tools used to mitigate risk in conjunction with the Bank's credit policies.

Offset of assets and liabilities – The Bank applies the rules specified in the Supervisor of Banks' circular dated December 12, 2012.

In conformity with the directives, a banking corporation should offset assets and liabilities arising from the same counter-party and present their net balance on the balance sheet, when all of the following conditions are fulfilled:

- The banking corporation has an enforceable legal right to offset assets against liabilities with regard to said liabilities.
- The banking corporation intends to repay the liabilities and realize the assets on a net basis or concurrently;
- Both the banking corporation and the counter-party owe each other amounts which may be determined.

According to the directives, a banking corporation should offset assets and liabilities with two different counter-parties and present the net amount on the balance sheet when all of the aforementioned conditions are fulfilled, and provided that the three parties have an agreement which clearly stipulates the banking corporation's set-off rights with regard to those liabilities.

It was further stipulated that a banking corporation should offset deposits whose repayment to the depositor is contingent on the extent of collection of borrowing against those deposits, when the banking corporation has no risk of credit losses.

Currently, it is Bank policy to present exposures with transactions on a gross basis, except for deposits whose repayment to the depositor is contingent on the extent of collection of borrowing, as described above. Accordingly, designated deposits for extending credit, for which repayment to the depositor is contingent upon the collection of the loan (when the Bank Group is not at risk of credit loss) were set off against the loans issued out of these deposits. The interest margins from this activity are presented in the statement of profit and loss under “commissions”.

Collateral – Collateral received by the Bank is designed to secure repayment of credit extended by the Bank to the customer, in case of insolvency. The quality and extent of collateral required from the customer is determined based on the basic borrower attributes, transaction attributes and materiality of the risk of the customer being unable to repay the credit. The higher the risk, the larger and more liquid collateral required by the Bank. In general, customers are required to provide collateral types which match, to the extent possible, the credit extended based on parameters such as: Match with the transaction, amount and credit term.

Bank policies and procedures specify the asset types which may be recognized as collateral for providing credit. The commonly used collateral types at the Bank are: Deposits, securities, liens on real estate, vehicles, credit vouchers, checks, bank guarantees and institutional, corporate or individual guarantees. As part of the collateral policies, rules and principles were prescribed as to the level of reliance on each type of collateral, with regard to its character, marketability, price volatility, promptness of realization and legal status, in addition to assessing the repayment ability of a customer as a criterion for issuing the loans.

There are also other collateral types, such as a floating lien, receivables and/or financial and operating covenants imposed on the customer to secure their capacity to repay their debt to the Bank.

The collateral is matched, as far as possible, to the type of credit that it secures, while taking into account the period of time, types of linkage, character of loans and their purpose, as well as how quickly it can be realized. Collateral coefficients determine the extent to which the Bank is willing to rely on specific collateral to secure credit. The value of the collateral, with the use of safety factors, is, as far as possible, calculated automatically by the IT systems. The safety factors for different types of collateral are examined once a year and are approved by the Senior Credit Committee and by the Board of Directors' Credit Committee, by the Risks Management Committee and by the Board of Directors. There is also collateral in place which is not accounted for in calculating safety factors, but only used to reinforce existing collateral. The Bank also approves, on a limited, case-by-case basis, the granting of credit solely on the basis of the borrower’s obligation.

Guarantors – Sometimes, the Bank requires customers to provide guarantees or guarantors to secure credit. There are different types of guarantees, such as personal guarantees, various bank guarantees, State guarantees, insurance policies or letters of indemnification.

Credit syndication – The Bank participates in syndication through a professional department which allows the Bank to lead syndications of significant credit volumes. Syndicated financing allows the risk to be diversified among multiple financing providers in large credit transactions.

Debts sharing / sale – Another tool used to mitigate credit risk is sharing / selling parts of the Bank's credit portfolio in certain segments to financial institutions. In recent years, the Bank has established the business, legal and operational infrastructure for selling of credit risk.

Hedges – Borrowers with currency exposure are offered means of safety and protection (hedging transactions) in order to reduce their exposure, in addition to other measures that the Bank adopts to minimize the risk of the Bank’s exposure from the activities of these customers. The Bank has specified guidelines for the monitoring, control, and supervision of the activities of borrowers whose debts to the Bank are sensitive to exchange rate fluctuations, including the creation of simulations and future scenarios of changes in exchange rates. Special controls are also used for customers, when securities form a significant element of their collateral.

Residential mortgages

Collateral – In accordance with Bank procedures for mortgages, loans are only provided if secured by property collateral. In some cases, the Bank demands guarantors for the debt, in addition to property collateral. For verification of information about the property offered to the Bank as collateral and to determine its value, an assessor visit to the property is normally required, providing a report which describes the property, its location, physical condition and market value. Assessors are party to an agreement with the Bank and act in accordance with Bank guidance, including a structured procedure for conducting assessments, identifying exceptions etc. The common practice for assessment in the mortgage sector is to use an abbreviated assessment. However, the Bank requires an extended assessment for some of the loans for purchase of existing apartments, self-construction or general-purpose loans with high-risk property types, which includes additional tests subject to criteria set for this matter.

Insurance – According to Bank procedures and in conformity with directives of the Bank of Israel, all properties serving as collateral must be insured under property insurance. In addition, the borrowers are insured by life insurance assigned to the Bank in case of death prior to complete repayment of the loan. This credit insurance process is a key risk mitigator.

Loan To Value (LTV) Ratio – The maximum LTV ratio approved by the Bank is determined by the credit policies and is periodically reviewed. Generally, the Bank requires borrowers to contribute part of the financing for the acquisition. This self-equity payment forms a safety cushion in case the property is realized during a down-turn in the real estate market. Furthermore, the rate of the borrower’s participation is a further indication of the borrower's financial stability.

Credit risk mitigation methods (CR3) (NIS in millions)

	As of December 31, 2022									
	Non-secured	Secured								
		Total on-balance sheet balance[1]	Of which: Secured amount[2]	Of which: By collateral		Of which: By financial guarantees		Of which: By credit derivatives		
	Total on-balance sheet balance[1]			Balance sheet balance	Of which: Secured amount	Balance sheet balance	Of which: Secured amount	Balance sheet balance	Of which: Secured amount	
Debts, except for bonds	345,390	48,390	16,227	33,552	8,811	14,838	7,416	–	–	
Bonds	11,548	–	–	–	–	–	–	–	–	
Total	356,938	48,390	16,227	33,552	8,811	14,838	7,416			
Of which: Non-accruing or in arrears 90 days or longer	1,759	738	199	311	64	427	134			

	As of December 31, 2021								
	Non-secured	Secured							
				Of which: By collateral		Of which: By financial guarantees		Of which: By credit derivatives	
	Total on-balance sheet balance[1]	Total on-balance sheet balance[1]	Of which: Secured amount[2]	Balance sheet balance	Of which: Secured amount	Balance sheet balance	Of which: Secured amount	Balance sheet balance	Of which: Secured amount
Debts, except for bonds	329,532	35,420	10,157	27,452	8,281	7,968	1,876	–	–
Bonds	13,755	–	–	–	–	–	–	–	–
Total	**343,287**	**35,420**	**10,157**	**27,452**	**8,281**	**7,968**	**1,876**		
Of which: Non-accruing or in arrears 90 days or longer	2,034	346	154	19	15	327	138		

(1) Balance sheet balance in conformity with reported carrying amounts on the financial statements, after provisions for credit losses.
(2) Balance sheet balance of part of the debt amount secured by collateral, guarantee or credit derivative, after accounting for safety factors.

Credit risk using the standard approach

Calculation of credit risk using the standard approach is based on external credit ratings assigned by External Credit Assessment Institutions (ECAI).

Ratings from these rating agencies are used to determine the risk weighting of the following exposure groups:
- Sovereigns
- Public sector
- Banking corporations
- Insurance companies, provident funds and mutual funds
- Corporations

The appropriate risk weighting is assigned based on counter-party data.

The risk weighting for banks, public sector entities, insurance companies, provident funds and mutual funds is assigned based on the risk weighting of the country where the bank is incorporated and is one notch lower than the risk weighting for the rating of said country.

For investment in issuances with a specific issue rating, the risk weighting for the debt shall be based on this rating, unless the issuer is a banking corporation or a public sector entity, insurance companies, provident funds and mutual funds. In such cases, the risk weighting would be based on the issuer rating, rather than on the specific issue rating.
For this rating, the Bank used a single rating from S&P. As from the first quarter of 2022, the Bank started using the lower of ratings from S&P and from AM Best, used for rating of credit risk insurers, in order to mitigate credit risk so that the risk weighting is based on insurer rating, rather than on counter-party rating.

The following table maps the ratings by international rating agencies used by the Bank:

S&P	AM Best
AAA to AA-	A++ to A+
A+ to A-	A to A-
BBB+ to BBB-	B++ to B+
BB+ to BB-	B to B-
B+ to B-	C++ to C+
CCC+ or lower	C or lower

Note that the majority of credit risk at the Bank is not rated by an external rating.

Analysis and preparation of frameworks

As part of the Bank's business operations, in order to prepare operating frameworks for credit exposure and other risks with regard to foreign banks and financial institutions, the Bank uses in public information and ratings, and any other information available with respect to financial institutions to which it is exposed, which are used by the Bank for analysis as well as for setting exposure limits.

Standard approach – exposure to credit risk and effects of credit risk mitigation (CR4)

Below is the composition of net credit exposure by risk mitigation type) (NIS in millions)[(1)]:

	As of December 31, 2022					
	Exposures before conversion factors and collateral deduction		Exposures after conversion factors and collateral deduction		Risk assets and density	
	On-balance sheet amount[(2)]	Off-balance sheet amount[(2)]	On-balance sheet amount[(3)]	Off-balance sheet amount[(3)]	Risk assets	Risk asset density
Sovereigns, central banks thereof and national monetary authority	97,296	282	97,898	282	29	0%
Public sector entities (PSE) other than central Government	1,680	294	1,795	89	366	19%
Banks (including multilateral development banks)	3,189	2,311	3,607	618	1,267	30%
Securities companies	519	2,039	430	377	161	20%
Corporations	60,981	61,413	63,320	22,452	77,040	90%
Retail exposures to individuals	26,850	14,714	25,380	2,081	20,596	75%
Loans to small businesses	14,300	5,851	11,903	1,146	9,786	75%
Secured by residential property	194,359	11,422	188,192	1,204	102,599	54%
Secured by commercial property	5,496	619	4,937	199	5,136	100%
Loans in arrears	3,555	–	3,350	–	4,524	135%
Other assets	6,954	161	6,954	81	4,180	59%
Total	415,179	99,106	407,766	28,529	225,684	52%

	As of December 31, 2021					
	Exposures before conversion factors and collateral deduction		Exposures after conversion factors and collateral deduction		Risk assets and density	
	On-balance sheet amount[(2)]	Off-balance sheet amount[(2)]	On-balance sheet amount[(3)]	Off-balance sheet amount[(3)]	Risk assets	Risk asset density
Sovereigns, central banks thereof and national monetary authority	104,916	264	105,672	257	99	0%
Public sector entities (PSE) other than central Government	2,513	798	2,732	200	556	19%
Banks (including multilateral development banks)	4,292	1,977	4,559	476	1,318	26%
Securities companies	550	1,836	415	348	153	20%
Corporations	44,677	56,609	43,849	21,852	60,353	92%
Retail exposures to individuals	25,018	13,998	23,507	1,967	19,102	75%
Loans to small businesses	14,114	5,675	11,488	1,101	9,442	75%
Secured by residential property	174,084	19,744	173,762	1,542	92,416	53%
Secured by commercial property	6,149	3,356	5,540	482	6,022	100%
Loans in arrears	2,394	81	2,394	16	3,055	127%
Other assets	6,068	109	6,068	54	4,011	66%
Total	384,775	104,447	379,986	28,295	196,527	48%

(1) Balances in this disclosure include on- and off-balance sheet debt balances that reflect credit risk, excluding deferred tax amounts and investments in financial institutions below the discount thresholds (subject to 250% risk weighting), exposures with respect to counter-party credit risk and securitization exposures.

(2) The balances reflect the supervisory exposure amounts, net of provisions and write-offs, before credit conversion factors and before credit risk mitigators.

(3) The balances reflect the supervisory exposure amounts, net of provisions and write-offs, after credit conversion factors and after credit risk mitigation methods.

Standard approach – exposures by asset type and risk weighting (CRS)[(1)(2)] (NIS in millions)

Asset types / risk weighting	0%	20%	35%	50%	60%	75%	100%	150%	Other	Total credit exposures (after conversion factors and collateral deduction)
										As of December 31, 2022
Sovereigns, central banks thereof and national monetary authority	98,067	105	-	-	-	-	8	-	-	98,180
Public sector entities (PSE) other than central Government	148	1,683	-	48	-	-	5	-	-	1,884
Banks (including multilateral development banks)	-	2,987	-	1,136	-	-	102	-	-	4,225
Securities companies	-	807	-	-	-	-	-	-	-	807
Corporations	-	10,494	-	3,544	-	-	68,248	3,280	206	85,772
Retail exposures to individuals	-	-	-	-	-	27,461	-	-	-	27,461
Loans to small businesses	-	-	-	-	-	13,045	4	-	-	13,049
Secured by residential property	-	-	57,480	44,752	51,623	25,644	9,897	-	-	189,396
Secured by commercial property	-	-	-	-	-	-	5,136	-	-	5,136
Loans in arrears	-	-	-	-	-	-	1,003	2,347	-	3,350
Other assets	3,117	-	-	-	-	-	3,489	425	4	7,035
Of which: with respect to shares	-	-	-	-	-	-	259	190	-	449
Total	101,332	16,076	57,480	49,480	51,623	66,150	87,892	6,052	210	436,295

Asset types / risk weighting	0%	20%	35%	50%	60%	75%	100%	150%	Other	Total credit exposures (after conversion factors and collateral deduction)
										As of December 31, 2021
Sovereigns, central banks thereof and national monetary authority	105,765	82	-	-	-	-	82	-	-	105,929
Public sector entities (PSE) other than central Government	168	2,756	-	6	-	-	2	-	-	2,932
Banks (including multilateral development banks)	-	4,262	-	614	-	-	159	-	-	5,035
Securities companies	-	763	-	-	-	-	-	-	-	763
Corporations	-	6,426	-	420	-	-	58,855	-	-	65,701
Retail exposures to individuals	-	-	-	-	-	25,474	-	-	-	25,474
Loans to small businesses	-	-	-	-	-	12,584	5	-	-	12,589
Secured by residential property	-	-	57,437	42,318	39,247	34,787	1,515	-	-	175,304
Secured by commercial property	-	-	-	-	-	-	6,022	-	-	6,022
Loans in arrears	-	-	-	-	-	-	1,120	1,290	-	2,410
Other assets	2,314	-	-	-	-	-	3,492	312	4	6,122
Of which: with respect to shares	-	-	-	-	-	-	492	194	-	686
Total	108,247	14,289	57,437	43,358	39,247	72,845	71,252	1,602	4	408,281

(1) Balances in this disclosure include on- and off-balance sheet debt balances that reflect credit risk, excluding deferred tax amounts and investments in financial institutions below the discount thresholds (subject to 250% risk weighting), exposures with respect to counter-party credit risk and securitization exposures.

(2) The balances reflect the supervisory exposure amounts, net of provisions and write-offs, before credit conversion factors and before credit risk mitigators.

Additional information about credit risk

Risks in the residential mortgage portfolio

Residential mortgages account for a significant share of all credit risk at the Bank, but this segment is still highly diversified and has a Low-Medium risk level, due to extensive diversification of borrowers from various economic sectors, relatively low LTV ratios, extensive geographic diversification of pledged assets and use of various risk mitigators, including property and life insurance, to mitigate credit risk in this segment. The Bank's policies with regard to mortgages are based on a specific approach, limiting specific risk for each loan by reviewing various risk attributes. These attributes include: review of borrower quality and their capacity to make current repayments even under scenarios involving changes to interest rates, ratio of repayment to regular household income, review of transaction data and LTV ratio. The Bank sometimes requires additional bolstering for the loan, such as guarantors for the loan, proven repayment capacity not based on regular borrower income and other bolstering measures.

Risk level in the residential mortgages portfolio increased in the fourth quarter of 2022 to Low-Medium, due to uncertainty with regard to potential future impact of higher interest rates and inflation on borrowers' repayment capacity, due to how material the mortgage portfolio is for the Bank, and even though at this time, the risk measures do not point to material deterioration or material change in the risk level.

As part of its credit risk policies, the Bank has set various restrictions on residential mortgage operations, to account for major risk factors. These factors are reviewed from time to time and additional restrictions are imposed as needed, i.e. based on the actual risk profile of the mortgage portfolio and its trend, as well as on regulatory directives from the Bank of Israel. These restrictions, as a whole, form the Bank's risk appetite for mortgages is defined using multiple risk benchmarks, which evaluate credit risk and concentration risk aspects at regular performance level and the overall portfolio. These benchmarks include: LTV ratio, property location (geographic risk), credit quality benchmarks, loan repayment to income ratio, loan purpose, loan term, loan track mix, property type, document quality, normative interest rate, financial wealth and cross restrictions on combinations of multiple parameters.

The Bank acts regularly to control and manage the risk associated with residential mortgages, for which the Retail Division, the Risks Control Division and other Bank entities are responsible. This activity also includes portfolio analysis and monitoring by key risk factors and estimation of portfolio risk using an advanced model for rating residential mortgages, including rating of each loan and calculation of probability of default and potential loss given default, as well as conducting various stress scenarios to review the effect of changes to macro-economic factors on the portfolio risk level, primarily the impact of change in unemployment, change in housing prices and change in interest rates.

Constant monitoring of the risk profile of the mortgage portfolio and its development over time, in view of the specified risk appetite. shows that leading risk benchmarks remain stable and do not indicate material deterioration or change in risk level, despite the current uncertainty with regard to further developments in the macro-economic environment and its impact on the Bank. These benchmarks include: LTV ratios, repayment ratio, rate of obligation in default and, in particular, the rate of arrears for new loans (one year since origination), which is testimony to the high quality of underwriting at the Bank. Note that the average LTV ratio for the Bank's mortgage portfolio (at end of December 2022) was 54.6%, compared to 53.4% on December 31, 2021 and to 52.7% on December 31, 2020. (reflecting the LTV ratio upon loan origination – see more details below).

The Bank constantly reviews the risk measures and risk levels, adapting them as required to current business activity, subject to and in line with the risk appetite, and should the potential future risk decrease, the risk level in the residential mortgage portfolio would decrease back to Low.

Means for risk management in residential mortgages include:

- Underwriting process – residential mortgages are reviewed and approved by a process which includes the following:
  - Criteria specified in Bank procedures, reflecting the Bank's cumulative interest in residential mortgages. Loan approval criteria include: Nature of the transaction, borrower quality and repayment capacity, property collateral offered, including estimated credit risk in various regions of the country, and the guarantors.
  - Credit authorization – Specification of the party authorized to approve a loan is based on data in the credit application and the risk associated there with.
  - Model for determination of differential risk premium – This model was developed by the Bank, based on past empirical data, for rating the individual borrower risk.
  - Built-in controls in loan origination system – These controls include: Ensure information completeness; Control over transactions based on authorizations; Work flow process.
- Mortgage-related training – The Bank’s Training Center delivers courses for training, development and improvement of all those involved in provision of residential mortgages.
- Professional conferences – In these conferences, extensive reviews of developments in the mortgage market are presented, along with steps to be taken to handle the risks associated with such developments.
- Regular monitoring of borrower condition and of the residential mortgage portfolio – At the individual loan level, the Bank acts to identify as early as possible any symptoms indicating a decline in borrower repayment capacity, in order to identify as soon as possible any credit failure situation. The Bank applies multiple control types, including regular internal controls at branches, regions and headquarters.

Credit risk in construction and real estate economic sector

Credit operations in this sector account for a significant component of credit operations of the Bank. In financing the construction and real estate industry, specific analysis and monitoring tools are used to assist the Bank in reaching decisions on the granting of financial support to the various projects. Construction financing in this industry is focused mainly on residential construction in areas with strong demand. In addition, the financing is allocated between geographic regions, based inter alia on relevant demand. In extending credit for construction, the Bank focuses on the financial support method (closed assistance). The application of this method is designed to reduce the exposure to risks in the granting of the loans, because it incorporates current and close monitoring of the progress of the financed projects, both before the loans are provided, and as the project receives the financial support, while maintaining a distinction between the financed projects and the business risks inherent in the other activities of the developer-borrower. The Bank is assisted by outside construction supervisors, and also relies on liens on the land in the project, to secure the loans. Loans are issued for financed projects only by business centers and branches with professional knowledge of the subject, and under the supervision of the construction and real estate sector. The Bank has also set policy and rules for financing other types of real estate transactions, such as financing for rental property, purchase groups, urban renewal, National Zoning Plan 38 and so forth. Moreover, in order to minimize risk, the Bank insures the portfolio of housing bonds and performance guarantees in assisted projects with overseas reinsurers.

In the Real Estate sector, a dedicated control unit operates to control and review various aspects with regard to handling of real estate transactions by the Bank, credit operation at branches specialized in real estate. The unit also provides control and review with regard to rental real estate and provides control with regard to purchase groups.

In the construction and real estate sector, a computer system for control and management of closed-assistance projects in this sector. The system is designed for assistance and monitoring of closed projects, releasing funds, improving control over the real estate portfolio and project maintenance.

In financing the construction and real estate industry, specific analysis and monitoring tools are used to assist the Bank in reaching decisions on the granting of financial support to the various projects.

Credit risk data for the construction and real estate customers sector as of December 31, 2022 show that 55.8% of the on-balance sheet credit risk and 66.1% of the off-balance sheet credit risk is associated with closed assistance to real estate projects, mostly for residential construction in areas of strong demand in Central Israel, Haifa, Be'er Sheva and Jerusalem. Most of the off-balance sheet credit is due to housing bonds provided to apartment buyers.

Most of the credit risk in the construction and real estate sector is backed by real estate fully pledged to secure loan repayment. Note that for credit not secured by real estate collateral, there is other collateral in place, such as: deposits, securities etc.

In 2022, the Bank acted to expand its loan operations in the construction and real estate sector, as part of the trend of growing demand in this sector reflected, *inter alia*, in increased transaction volume. Consequently, the total credit exposure in the construction and real estate sectors increased by 12.0% in 2022.

Continued growth in lending to the real estate sector, even in view of competition, is achieved while adhering to appropriate underwriting procedures and credit spreads to reflect the risk and is regularly monitored. The risk level in this sector is also taken into account in the quarterly review process of the group-based provision.

Below is information about credit risk in the construction and real estate economic sector in Israel, by real estate collateral type (NIS in millions):

	December 31, 2022							
	Credit risk to the public[1]							
	Credit risk				Total problematic credit risk		Balance of provision for credit losses	
	On balance sheet[2]	Off balance sheet[3]		Of which:	Non-accruing	Other proble-matic[4]	On-balance sheet credit risk	Off-balance sheet credit risk
		Guarantees to home buyers[5]	Facilities and other commit-ments					
Secured by real estate:								
Housing	19,386	6,007	10,848	36,241	28	296	83	60
Commercial and industrial	9,016	189	2,373	11,578	128	138	123	5
Total secured by real estate	28,402	6,196	13,221	47,819	156	434	206	65
Not secured by real estate	5,352	5	5,373	10,730	109	92	160	25
Total for construction and real estate economic sector in Israel	33,754	6,201	18,594	58,549	265	526	366	90
Of which: Designated for project assistance	18,797	5,072	11,107	34,976	19	347	61	63

	December 31, 2021							
	Credit risk to the public[1]							
	Credit risk				Total problematic credit risk		Balance of provision for credit losses	
	On balance sheet[2]	Off balance sheet[3]		Of which:	Non-accruing	Other proble-matic[4]	On-balance sheet credit risk[6]	Off-balance sheet credit risk
		Guarantees to home buyers[5]	Facilities and other commitm ents					
Secured by real estate:								
Housing	13,472	5,517	13,708	32,697	69	87	105	57
Commercial and industrial	7,263	83	2,150	9,496	90	49	54	7
Total secured by real estate	20,735	5,600	15,858	42,193	159	136	159	64
Not secured by real estate	5,652	219	4,193	10,064	122	99	52	33
Total for construction and real estate economic sector in Israel	26,387	5,819	20,051	52,257	281	235	211	97
Of which: Designated for project assistance	12,788	5,549	12,348	30,685	39	72	122	59

(1) On- and off-balance sheet credit risk, problematic credit risk and non-accruing loans to the public are stated before impact of provision for credit losses, and before impact of deductible collateral with respect to indebtedness of borrower.
(2) Loans to the public, investment in bonds by the public, other debt by the public and other assets with respect to derivatives against the public.
(3) Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower indebtedness limits.
(4) On- and off-balance sheet credit risk with respect to the public, which is inferior or under special supervision.
(5) Off-balance sheet credit risk due to housing bonds / similar bonds, which are mostly backed by insurance purchased from international reinsurers.
(6) Re-classified in conformity with the new disclosure format for non-accruing debts in lieu of disclosure of impaired debts

Below is information about credit risk in the construction and real estate economic sector in Israel, by asset status (NIS in millions):

	December 31					
	2022			2021		
	Credit risk[1]			Credit risk[1]		
	On balance sheet	Off balance sheet	Of which:	On balance sheet	Off balance sheet	Of which:
Secured by real estate						
Real estate yet to be completely constructed:						
Raw land	15,710	703	16,413	8,795	1,276	10,071
Real estate under construction	5,791	16,833	22,624	5,698	18,865	24,563
Real estate completely constructed	6,901	1,881	8,782	6,242	1,317	7,559
Total credit secured by real estate in Israel	**28,402**	**19,417**	**47,819**	**20,735**	**21,458**	**42,193**
Not secured by real estate	5,352	5,378	10,730	5,652	4,412	10,064
Total credit risk for construction and real estate	**33,754**	**24,795**	**58,549**	**26,387**	**25,870**	**52,257**

(1) On- and off-balance sheet credit risk, problematic credit risk and non-accruing loans to the public are stated before impact of provision for credit losses, and before impact of deductible collateral with respect to indebtedness of borrower.

Credit risk to individuals

The individual customer segment is highly diversified – by number of customers and by geographic location. Most customers in this segment are salaried employees with an individual account or joint household account. A recession in non-banking operations is a major risk factor for household activity and higher unemployment may increase the number of customers who face difficulties.

Credit policies and work procedures with regard to extending credit, including to individual customers, include directives and guidelines with regard to credit underwriting and adapting credit to customer needs and repayment capacity: Review of credit objective, requested LTV, loan term, analysis of customer's repayment capacity and repayment sources, for all of their indebtedness. This includes review of various economic parameters of the customer based, *inter alia*, on the customer's regular income, pledged or unencumbered savings, knowledge of the customer and past experience working with the customer. There are also procedures, designated work processes and controls for proactive offering of loans to individual customers, in conformity with Bank of Israel directives.

The Bank regularly monitors the risk level in the credit portfolio for individuals using, *inter alia*, the internal credit rating model for individual customers, as well as through continuous monitoring and analysis of expenses with respect credit losses.

Loans to small businesses

The micro and small business segment is highly diversified in terms of customers in various economic sectors, mostly in small industry, trade, business and financial services. Financing in the micro and small business segment is mostly provided for short terms, for current operations and for financing of working capital, covering gaps in cash flow, financing trade receivables, inventory and import activities. Such financing is provided against appropriate collateral, such as checks for collateral / checks receivable, invoices, pledging of contracts and current liens, and against external collateral if possible, such as deposits, real estate and owner's guarantees.

As part of the credit underwriting process, the Bank analyzes the merchant's business activity, including by comparison to their economic sector. In this regard, and subject to review of repayment capacity and repayment sources, the credit amount and type are customized for the customer needs.

Major risk factors in operations of the small business segment are: macro-economic deterioration which would result in recession, which would have across-the-board impact on businesses operating in this segment; dependence on key persons in the business (primarily owners and managers); dependence on individual suppliers / customers who may face default. The Bank regularly monitors the risk level in the credit portfolio for micro and small businesses, including through custom credit rating models and by monitoring high-risk economic sectors and setting guidelines and differential credit authorizations for different management levels. In order to optimally support these operations, the Bank acts to improve infrastructure, banking processes and credit underwriting processes.

Credit for medium and large businesses

The medium business segment operates across all economic sectors, primarily industry, solar energy, commerce and services, construction and real estate.

Loans to medium businesses are typically highly diversified across customers, economic sectors and by geography. Financing is provided to this segment for current operations through financing of working capital, including financing of trade receivables and inventory, which is typically short-term financing, expansion and investment in the firm, which is typically medium- and long-term financing. This financing is backed by most existing collateral types, such as: deposits, securities, equipment, vehicles, current liens, various guarantees and personal guarantees. In addition, financial covenants are used for these customers, in order to mitigate risk.

Loans to large business customers is typically less diversified than in other segments. These customers typically have complex financial activities and diverse financing sources, both from the banking system in Israel and overseas, from institutional investors and from the capital market. Collateral for such loans is typically general collateral, such as a current lien, negative pledge along with financial covenants. These customers are involved with various credit products, including credit for the capital market.

The division control functions, operating on behalf of the Manager of the Corporate Division, are responsible for identification, assessment, measurement, monitoring, mitigation and reporting of risk inherent in products, activities, processes and systems under their responsibility, as well as for management of IT control systems and for maintaining an appropriate control environment with regard to risk management in the Division (hereinafter: "Control").

The control functions in the Corporate Division are responsible as follows:

- Division Control – responsible for control over credit extended to segments handled by the Division.
- Business Credit Control Department of the Corporate Division Headquarters Sector of the Corporate Division – responsible for control at the Corporate Division on several levels:
    - The division control function controls credit to customers of the Corporate Division. The division controller is also responsible for coordinating the Watch List Forum, to discuss accounts with risk characteristics, based on pre-determined parameters.
    - The Department is responsible for use of computer mechanisms to alert unusual accounts and customers, including based on information external to the Bank. The Department is responsible for control over business activity in accounts flagged due to risk indications, including for elaborating any deviations with the relevant front line credit staff (branches, regions, centers, sectors) and monitoring the elimination of such deviations.
- The Capital Market Exposure Control Unit – operations involving derivatives requires specific specialization and real-time control. This is due to the special nature of such activities and the exposure arising there from. The unit is responsible for control over customers specified in advance by the Corporate Division or by the various credit committees, for compliance with covenants and facilities.
- Compliance control – providing a professional response to Corporate Division staff with regard to compliance provisions and applying controls regarding compliance.

The Bank constantly monitors the risk level in the business credit portfolio using, *inter alia*, the Bank's criteria rating system. This system rates all debt of a single borrower to the Bank. The customer credit rating is determined by a process of determination of the business quality of the borrower, which is then combined with the collateral coverage ratio to provide a rating that reflects the quality of credit extended to the borrower.

Capital market

Credit risk in the capital market is the risk of the borrower failing to meet their obligations towards the Bank, including the obligation to cover losses due to capital market activity conducted through the Bank.
Debt may arise from failure or loss from transactions made in the customer's trading activity on the capital market, through the Bank.
Major exposures to trading activity on the capital market include exposure with respect to credit transactions, short selling and exposure with respect to transactions involving derivatives through the Bank.

There are three major risk factors associated with customer activity on the capital market through the Bank:

- Credit risk for the Bank, arising from customer transactions or from the customer portfolio composition, which may result in exposures which the customer is unable to cover.
- Concentration risk, arising from over exposure to a borrower / borrower group or to certain types of activities.
- Operational risk which, should they materialize, may impact credit risk.

Exposure frameworks for capital market trading activity are approved in conformity with the credit authorization ranking at the Bank.

The Bank provides its customers with a range of facilities for trading activity on the capital market (credit against securities, facility for short selling securities, facility for exposure to derivatives). These exposures are backed by monetary collateral and/or by securities.

Customers engaged in speculative trading – The Bank allows exposure by customers engaged in speculative trading, only if they are experienced and have proven specialization in this area, based on controlled activity and receiving appropriate collateral. The capital market exposure unit closely monitors the activity and exposure of such Bank customers, including on aggregate.

In conformity with Proper Conduct of Banking Business Directive 330 concerning management of customer trading activity on the capital market, the Bank has specified an aggregate exposure limit for capital market customers, including an aggregate exposure limit for customers with significant speculative activity, as well as limit on activity in the capital market for a single customer. The exposure to credit risk inherent in trading activity of customers on the capital market, vs. the risk appetite, is reported on quarterly basis to management and to the Board of Directors.

Commercial credit

The bank manages its commercial credit operations in multiple segments. The division into credit operating segments is supported by the Bank's organizational structure.
The decision making process with regard to extending commercial credit acts to minimize risk. To this end, an authorization ranking is specified for officers and credit committees at various levels, up to the Board of Directors' Credit Committee and the Board of Directors. The authorizations specify and limit the approving entity by credit volume, outstanding credit volume, collateral received, determination of the quality and value of collateral, as well as authorization to set interest rates.
The credit volume applicable for the authorization ranking is determined based on the aggregate credit volume for all components of the borrower group of which the borrower is part, not just for the individual borrower.
Branch managers and other officers in the business departments have authorization with regard to extending credit. More material credit-granting decisions are mostly made by credit committees in order to minimize the risk in relying on the judgment of a single individual.
The authorization procedures list the exposure amount that each of the credit extending entities and various credit committees is authorized to approve, subject to other Bank procedures with regard to extending credit.

Moreover, an authorization ranking has been specified with regard to approval of collateral to be received, authorization to determine the diversification, quality of collateral and authorization to determine the value of collateral.

Counter-party credit risk

Qualitative disclosure of counter-party credit risk (CCRA)

The Bank defines counter-party risk as in Proper Conduct of Banking Business Directive 203A – as credit risk arising from transactions involving derivative financial instruments. As from July 1, 2022, data with regard to counter-party risk is calculated using the SACCR approach.

Counter-party credit risk (CCR) is the risk that the counter-party to a transaction will be in default before final clearance of the transaction cash flows, including receipts with respect to any counter-party obligation. Economic loss would be incurred only when the transaction with the counter-party would have a positive economic value upon such default. Counter-party risk may be affected by other risks, including: credit risk, market risk, liquidity risk, operating risk and reputation risk of the counter-party to the transaction. Counter-party risk has been defined as a material risk at the Bank. The Risk Manager is the Manager, Finance Division.

The Bank has set specific policies on addressing counter-party risk for financial institutions and sovereigns and another document, which is part of the Bank's credit policies, concerns customer activities in financial derivatives. The trading in derivatives is part of the Bank's management of assets and liabilities, and is subject to restrictions prescribed by the Board of Directors. The Bank trades in these derivatives, both for its customers and for its own account, as part of the management of basis and interest exposure in the various linkage segments. Various procedures ensure that the Bank may offer to customers a wide range of financial instruments – while maintaining an appropriate framework for addressing such risk.

Exposure to financial institutions and foreign countries involves multiple risk factors, including country risk with regard to economic standing, geo-political standing and transfer risk, arising from administrative restrictions on transfer of foreign currency. In these operations, the Bank's risk appetite, as included in the policy document, involves routing most of the proactive operations to developed nations rated A or higher and to major financial institutions in these countries. Operations are carried out while maintaining proper diversification of exposures to sovereigns and financial institutions. The Bank has very little business with less developed nations rated lower, primarily in response to customer needs.

Risk measurement is based on stress tests which are conducted regularly in view of specific restrictions imposed on activity with the counter-party as well as on aggregate, with restrictions on total portfolio exposure. In cases where a market price may not be quoted, pricing and exposure estimation are based on commonly used pricing models. For business with financial institutions and sovereigns, the Bank has developed a methodology for calculating facilities with each counter-party, based on the quality, rating and capital of such financial institutions and sovereigns.

In order to estimate exposure, the Bank uses diverse systems, as in its business operations, with control based on information available in these systems and on a special control system developed by the Bank to estimate customer exposure and to alert any deviations. The control mechanism for operations with foreign financial institutions relies on special reports created

in the Bank's infrastructure system and exception reports generated to monitor business in Israel and overseas, including a Financial Institutions Report, which lists all exposures to banks as well as deviation reports, which reflect deviations from agreed facilities, if any. There are also automated mechanisms designed to flag deviations from trading limits with financial institutions and sovereigns, both in the trading room and in trading room control.

The Bank regularly adjusts its exposure to financial institutions and countries and regularly reviews publications about ratings of financial institutions to which the Bank is exposed, through the Financial Institution Relations Department of the Finance Division. Other indicators based on market benchmarks are regularly reviewed to alert any events which may indicate change in the financial standing of major financial institutions to which the Bank is exposed.

The Bank's current risk profile indicates that most of the Bank's exposure to counter-party risk is to foreign corporations and financial institutions, with a non-material exposure level. The Bank also has low exposure to sovereigns.

The Bank regularly reviews and monitors the action required to mitigate this risk.

Restrictions and controls – The Bank has operations involving financial derivatives, mostly vis-à-vis customers, which are required to maintain capital adequacy or to maintain collateral based on scenarios. These operations are regularly monitored by the Bank on intra-day basis by a dedicated control system developed by the Bank. The Bank has relatively little activity vis-à-vis customers who are mostly engaged in trading financial derivatives and short-selling or with customers who are not subject to capital requirements or collateral. These customers are closely monitored at a higher frequency than other customers.

At the Bank, a limit restriction applies for financial institutions and sovereigns, including reference to derivatives. Furthermore, a restriction applies to customer facilities based on certain parameters. The Corporate Division includes a dedicated department, specialized in control of exposure arising from capital market operations, which daily reviews customers active in this field. Furthermore, as part of Risks Control Division operations, trading room operations are controlled, including testing of compliance with various restrictions prescribed by the Board of Directors and Executive Management.

Risk mitigation - in order to participate in capital market activity, customers are required to provide collateral in accordance with Bank procedures. In its activities vis-à-vis financial institutions and sovereigns, the Bank signs ISDA agreements and CSA annexes. This allows for setting off transactions, so that the amount exchanged between parties to the transaction is limited to the net exposure amount, thereby reducing exposure of either party. CSA addendums regulate funds transfer between parties to a transaction whenever exposure reaches a certain pre-defined level, thereby reducing counter-party exposure.

In conformity with directives of the Supervisor of Banks (Appendix C to Directive 203), the Stock Exchange clearinghouse and of the MAOF clearinghouse are classified as qualified central counter-parties for calculation of capital requirements with respect to exposure to central counter-parties. Moreover, in conformity with the Europe Market Infrastructure Regulation (EMIR) legislation, the Bank operates through a central clearinghouse, LCH Ltd. In transactions settled in this way (whether mandatory or voluntary), Bank exposure is to LCH, rather than to the original counter party. Moreover, LCH delivers all payments and margin funds between counter parties to the transaction through leading financial institutions, authorized to conduct clearing transactions with LCH ("Clearing Members"). The Bank uses two Clearing Members for these operations.

Analysis of exposure to counter-party credit risk (CCR) based on the supervisory approach (CCR1) (NIS in millions)

	As of December 31, 2022				
	Subrogation cost	Future potential exposure	Alpha used to calculate regulatory EAD	Exposure after deduction of collateral	Risk assets
Standard approach for counter-party risk (SA-CCR) (for derivatives)	1,715	3,534	1.4	7,348	2,327
Comprehensive approach to credit risk mitigation (for securities financing transactions)	–	–	–	96	96
Total	**1,715**	**3,534**		**7,444**	**2,423**

	As of December 31, 2021			
	Subrogation cost	Future potential exposure	Exposure after deduction of collateral	Risk assets
Current exposure method	2,097	1,677	2,271	928
Comprehensive approach to credit risk mitigation (for securities financing transactions)	–	–	157	136
Total	**2,097**	**1,677**	**2,428**	**1,064**

Capital allocation with respect to credit risk valuation adjustment (CVA) (CCR2) (NIS in millions)

	As of December 31, 2022		As of December 31, 2021	
	Exposure after deduction of collateral	Risk assets	Exposure after deduction of collateral	Risk assets
Total – portfolios for which a CVA calculation is made using the standard approach	7,348	1,230	1,931	529

Standard approach – exposures to counter-party credit risk (CCR) by supervisory portfolio and risk weightings (CCR3) (NIS in millions)

	As of December 31, 2022			
Supervisory portfolio / risk weighting	**0%**	**20%**	**100%**	**Total credit exposure**
Sovereigns	7	–	–	7
Public sector entities (PSE) other than central Government	–	26	–	26
Banks (including multilateral development banks)	–	2,406	–	2,406
Securities companies	–	3,834	–	3,834
Corporations	–	–	1,061	1,061
Supervisory retail portfolios	–	–	14	14
Other assets	–	–	–	–
Total	7	6,266	1,075	7,348

	As of December 31, 2021			
Supervisory portfolio / risk weighting	**0%**	**20%**	**100%**	**Total credit exposure**
Sovereigns	11	–	–	11
Public sector entities (PSE) other than central Government	–	1	–	1
Banks (including multilateral development banks)	–	763	–	763
Securities companies	–	672	–	672
Corporations	–	406	411	817
Supervisory retail portfolios	–	–	7	7
Other assets	–	–	–	–
Total	11	1,842	418	2,271

Composition of collateral with respect to exposure to counter-party credit risk[1] (CCR) (CCR5) (NIS in millions)

	As of December 31, 2022					
	Collateral used in derivatives transactions				Collateral used in securities financing transactions	
	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		
Cash – local currency	–	1,470	–	297	1,500	–
Cash – other currency	–	1,319	–	2,039	3	–
Domestic sovereign debt	–	344	–	–	26	–
Other sovereign debt	–	238	–	–	–	–
Debt of Government agency	–	–	–	–	–	–
Corporate bonds	–	21	–	–	45	–
Shares	–	937	–	–	289	–
Other collateral	–	–	–	–	–	–
Total	**–**	**4,329**	**–**	**2,336**	**1,863**	**–**

	As of December 31, 2021					
	Collateral used in derivatives transactions				Collateral used in securities financing transactions	
	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		
Cash – local currency	–	666	–	–	1,051	–
Cash – other currency	–	1,007	–	–	3	–
Domestic sovereign debt	–	15	–	–	12	–
Other sovereign debt	–	–	–	–	–	–
Debt of Government agency	–	–	–	–	–	–
Corporate bonds	–	6	–	–	8	–
Shares	–	743	–	–	369	–
Other collateral	–	–	–	–	–	–
Total	**–**	**2,437**	**–**	**–**	**1,443**	**–**

(1) Amounts refer to collateral deposited or received with respect to exposures arising from counter-party credit risk related to transactions in derivatives or to securities financing transactions, including transactions settled by a Central Counter-Party (CCP)

Exposures to credit derivatives (CCR6) (NIS in millions)

	December 31, 2022	
	Protection acquired	Protection sold
Stated amounts		
Single-name credit default swaps	19	282
Credit options	–	–
Other credit derivatives	45	45
Total – stated amounts	64	327
Fair value – values		
Positive fair value (asset)	10	2
Negative fair value (liability)	(8)	–

	December 31, 2021	
	Protection acquired	Protection sold
Stated amounts		
Single-name credit default swaps	41	249
Credit options	–	–
Other credit derivatives	41	41
Total – stated amounts	82	290
Fair value – values		
Positive fair value (asset)	9	–
Negative fair value (liability)	(5)	–

Exposures to central counter parties (CCR8) (NIS in millions)

	As of December 31, 2022	
	Exposure after deduction of collateral	Risk assets
Exposures to qualified central counter-party (total)	1,746	162
Exposures to transactions with QCCP (excluding initial collateral and transfers to risk reserve), of which:	1,108	34
OTC derivatives	100	20
Transactions in derivatives traded on the stock exchange	736	14
Initial non-disconnected collateral	–	–
Funded transfers to risk reserve	38	8
Unfunded transfers to risk reserve	600	120

	As of December 31, 2021	
	Exposure after deduction of collateral	Risk assets
Exposures to qualified central counter-party (total)	1,399	210
Exposures to transactions with QCCP (excluding initial collateral and transfers to risk reserve), of which:	431	65
OTC derivatives	16	3
Transactions in derivatives traded on the stock exchange	408	62
Initial non-disconnected collateral	275	6
Funded transfers to risk reserve	34	7
Unfunded transfers to risk reserve	659	132

Market risk

General information about market and interest risk

Market risk – This is the risk of loss from on– and off-balance sheet positions, arising from change in fair value of financial instruments, due to change in market risk factors (interest rates, exchange rates, inflation, prices of equities and commodities).

Description of market risks to which the Bank is exposed:
Interest risk is the risk to Bank profit (change to revenues) or to Bank capital due to changes to interest rates. Interest risk consists of four major risk factors: Repricing risk, yield curve risk, basis risk and behavior risk, as explained below:

Repricing risk – This risk is due to timing differences in term to maturity (fixed interest) and in repricing dates (variable interest) of assets, liabilities and off-balance sheet positions. Mismatch of repricing dates may expose Bank profit and the value of Bank assets to unexpected fluctuations due to changes to interest rates.

Yield curve risk – This risk arises from unexpected shifting of the yield curve. Changes to links between interest rates for different terms are reflected in a change in curve slope (steepness) or shape (twist) and negatively impact the Bank's profit or economic valuation.

Basis risk – Risk arising from imperfect correlation in changes to interest rates in different financial markets, or in different instruments with similar repricing features. Differences in changes to interest rates may result in changes to cash flows and revenue spread between assets, liabilities and off-balance sheet instruments with a similar term to maturity, which are seemingly hedged.

Optionality risk – This risk is inherent in cash flows where the behavioral maturity differs from the contractual one. The risk arises from change in timing or extent of cash flow, due to changes in macro-economic conditions (such as changes to market interest rates). This risk is inherent in options embedded in the asset portfolio (such as early mortgage repayment), liability portfolio (such as deposit withdrawal at exit points) and in off-balance sheet instruments. These options entitle the customer to buy / sell or modify the financial instrument.

Exchange rate / inflation risk – This is the risk to Bank profit, arising from fluctuations in exchange rates / in the Consumer Price Index (due to currency mis-match between assets and liabilities).

Position risk in shares – This is the risk to Bank profit, arising from impairment of investment in shares.

The Bank has no exposure to commodities and its exposure to equities is not material, hence its main exposure to market risk is due to basis risk and to interest risk.

Strategies, policies and processes

The Bank's Board of Directors and management have established, as part of the Bank's orderly risk mapping and identification process, that market risk is a material risk and that management of this risk is vital for stability of the Bank. Therefore, the Bank's Board of Directors has created a specific policy document for handling market and interest risk.

The policy document on handling market and interest risk incorporates Bank policy on handling such risk, on management of the risk, risk appetite, risk measurement and risk mitigators. The document stipulates the principles whereby the Bank should act in order to identify, measure, monitor, review and control the market risk and interest risk on a regular basis, both in the normal course of business and in times of stress. This document is annually approved by Bank management, by the Board's Risks Management Committee and by the Board of Directors. Policy principles were specified in line with Bank strategy and with regulatory requirements, i.e. Proper Banking Conduct Directives of the Bank of Israel, relevant Basel Committee directives and in line with globally accepted best practice.

Market risk and interest risk are managed at Group level, including the Bank's overseas affiliates and subsidiaries.

Management of market risk and interest risk at the Bank consists of two main risk focus points:

- Bank portfolio – This portfolio, which is the Bank's primary activity and risk, consists of all transactions not included in the trading portfolio, including financial derivatives used to hedge the bank portfolio. This portfolio is exposed to interest and inflation risk. The measure of exposure which the Bank wishes to retain is due to the Bank's business activity. This exposure is limited by the risk appetite, specified individually for market risk and interest risk in the bank portfolio, which is reviewed by the Bank daily, using various tools and models. Any deviation from or even getting close to the specified exposure limits are regularly reported and immediately addressed, in conformity with principles specified in the policy document created by the Bank. Management of this risk is designed to maintain a risk level in conformity with the risk appetite specified, while taking advantage of opportunities and constant monitoring of the risk profile, so that the Bank would not be exposed to significant losses.
- trading portfolio – The portfolio consists of positions in financial instruments held for trade or for hedging of other components in the trading portfolio. The consolidated portfolio includes portfolios managed by the trading room and portfolios of bonds held for trade and strategy in Israeli currency and in foreign currency – as well as derivatives designated for execution of strategies. The portfolio also includes hedging transactions for instruments included in the trading portfolio. This portfolio is associated with risk that is not high.

The Bank of Israel directives relevant for market and interest risk management are: Proper Conduct of Banking Business Directive 339 "Market Risks Management"; Proper Conduct of Banking Business Directive 333 "Interest Risk Management", which expands the regulations with regard to interest risk, mostly with regard to Bank activity in the bank portfolio; and Proper Conduct of Banking Business Directive 208 "Capital Measurement and Adequacy", with regard to definition of revaluation management and capital allocation under Pillar 1 with respect to the trading portfolio.

The Bank is required to allocate capital with respect to interest risk and equities in the trading portfolio, for exchange rate risk for all banking activities and for options risk. The Bank uses the effective duration method in measuring interest risk, and the Delta Plus method in measuring options risk. This method quantifies the risk associated with operations of the options portfolio based on the discounting values. These reflect the sensitivity of the options portfolio to movements in the underlying asset and in standard deviation.

The Bank's exposure to equities is low; the Bank has a limited equity portfolio in the nostro portfolio and in the real investments portfolio. Bank operations in the trading portfolio, as noted above, are subject to restrictions which reflect low risk appetite and therefore, the Bank's capital allocation with respect to market risk is very low.

The structure of the Bank's assets and liabilities portfolio, which is weighted towards the mortgage portfolio, produces medium-term uses for which the Bank requires sources. Due to incomplete alignment of the average duration of uses and the average duration of sources, the Bank's economic value is exposed to changes in interest rate curves.

The market and interest risk profile is monitored on a daily level by the Finance Division and the Risks Control Division; on a weekly level by the Risks Management Committee, headed by the Manager, Finance Division; and on a monthly level by the Management Committee for the Management of Assets and Liabilities, headed by the Bank President & CEO. The market and interest risk profile in the bank portfolio is presented to the Bank's Board of Directors using the Bank's quarterly Risks Document. The discussion by the Board of Directors covers development of the risk profile, major action taken by the Bank in the different portfolios during the reviewed period and of market developments, in particular risks in markets in Israel and overseas which may potentially impact the business profile of Bank operations and its market and interest risk profile in the bank portfolio and Bank sensitivity to changes in risk factors. Any deviation, should it occur, is to be reported to the Board of Directors, along with action taken to eliminate it.

Tools for risk measurement management

Measurement of market and interest risks is supported by a wide range of information systems, models, processes, risk benchmarks and stress tests. The models and information systems involved in the calculation are regularly reviewed, through internal controls processes at the Bank, including continuous validation processes.

Market risk in both portfolios (bank and trading) are managed overall by using the VAR model and stress tests. The Bank operates within the Board of Directors' specified risk appetite for and interest market risk in terms of VAR and stress tests.

The risk appetite stipulates that the VAR for all of the Bank's activities in one-month investments, will not exceed 9% of shareholders' equity, and that the maximum loss in stress tests, the highest of all calculation methods, will not exceed 14.5% of equity. Management has also specified guidelines for these two restrictions. The Bank maintains a risk profile that is within these restrictions. For application of these models, the Bank's available capital is defined as a non-linked NIS-denominated source.

The VAR model is a statistical model that estimates the loss expected for the Bank in a certain investment period and at a predetermined statistical level of assurance. This model measures risk level in terms of money, where the Bank aligns the investment horizon for the portfolios reviewed using this benchmark. The Bank applies a method that combines the historical method and the analytical method, for effective monitoring of risk factors. The VAR calculation is in addition to a back testing calculation, designed to review the quality of its calculation estimates, i.e. review the model forecast, compared to actual results.

Stress testing – These are various methods designed to estimate the Bank's expected loss as a result of sharp fluctuations in prices of market risks factors. This model estimates, using different methods, the potential loss at the left tail of the distribution, i.e. beyond the significance level determined in calculating the VAR. The Bank's stress test methods are two-fold: Subjective methods, reliant on an economic outline specified by Bank experts, adjusted for specific risk concentrations existing in the portfolio, and therefore deemed by the Bank to be "the worst scenario", and the uniform scenario outline under stress scenarios, as periodically determined by the Bank of Israel, and objective methods, which rely, *inter alia*, on past stress events and scenarios as well as on scenarios stipulated by the Bank of Israel in Directive 333 for interest risk management, where the curve moves in parallel throughout its length at rates of between 1% and 4%.

As part of testing the left-hand tail of distribution of the Bank portfolio, the Bank reviews other benchmarks, such as Stressed VAR, which estimates the expected VAR in case of a return of market conditions during a financial crisis, as well as the Expected Shortfall VAR, a benchmark which estimates the average loss, beyond the specified significance level (average for the left-hand tail), so as to assign a weight to extreme events which are beyond the significance level and are not reflected in the VAR calculation.

For more information about approaches to interest risk management, how this risk is manged and risk mitigators, see chapter "Management of interest risk in the bank portfolio" below.

Restrictions of models used by the Bank to manage market and interest risk

The main models used by the Bank to estimate market and interest risk, as with all models, have restrictions which may be due to model assumptions, input values used or mismatch between the models and market conditions, in particular with regard to stress conditions. The Bank is aware of these restrictions and therefore backs these models with other tools and processes. The VAR model is not appropriate for use under stress conditions, since it relies on historical data, which may not incorporate an estimate of the potential for an extreme market event. Use of stress tests, which are mostly "forward-looking", i.e. do not rely on historical data, and review the risk under stress scenarios, completes the VAR model.

The risk benchmarks measure the change in overall value of the Bank (both the VAR benchmark and stress scenarios, and the EVE benchmark under the various scenarios), estimate risk under a static, rigid assumption of stable, one-time change across the life of all existing assets and liabilities at the Bank at the measurement point, without any management intervention to take any hedging action / make any changes to exposures. Addressing these assumptions means, first and foremost, understanding and disclosing the meaning of risk values across all management levels, and making business decisions given this assumption. Furthermore, to complement the economic capital approach, the Bank estimates the effect of interest risk using the earnings method as well, over a shorter term, and as part of management of the Bank's financing work plans.

another limitation is the use of behavioral models to create forecasted cash flows of instruments which include such components. The Bank, being a mortgage bank, significantly relies on behavioral models, for both attribution of future mortgage cash flows and for anticipated attribution of current account and deposit balances, with an option for early withdrawal by the customer.

The Bank faces these limits both in continuous validation processes of models used by the Bank, which consider all model components, and in regular execution of sensitivity testing to the outcome of risk value estimation under various behavioral assumptions, including a complete collapse of such assumptions.

Exposures to linkage segments

Currency exposures – It is Bank policy to maintain minimal (operating) currency positions, except for specific strategic positions approved by the different committees and/or ForEx positions in the trading portfolio, managed by the Trading Room, subject to relatively low exposure limits specified. Foreign currency strategic positions are capped by a Stop Loss mechanism to restrict and reduce risk. The Bank's overall currency risk level is low.

Inflationary exposures – The Bank has inherent exposure to negative inflation due to Bank activity in the bank portfolio, including excess CPI-linked mortgages over CPI-linked sources. The risk management policy is in line with expected profit from holding a position and the Bank's capacity to reduce the exposure within a reasonable time frame, subject to the specified risk appetite. The actual exposure is estimated as part of the risk appetite benchmarks and models applied by the Bank to all market risks. Risk is assessed as Low-Medium, reflecting the exposure and expected inflation.

Policy on determination whether a position is designated for trading

The Bank operates in conformity with Proper Conduct of Banking Business Directive 208, which incorporates the Basel Committee directives with regard to definitions, management and revaluation of the trading portfolio. Inclusion of an instrument and/or position in the trading portfolio is subject to compliance with objective criteria (free of any treaty which restricts their negotiability or which may be fully hedged) and subjective criteria set forth in the regulation, i.e. there is trading intent or hedging of other components in the trading portfolio, active portfolio management and frequent, accurate valuation of the portfolio.
Classification under the trading portfolio is part of Bank policy, and the trading portfolio primarily consists of all portfolios managed by the Trading Room (bond trading portfolio of the Interest Trade Unit (market maker), derivative transactions classified under Trading Room portfolios (and options), as well as trading portfolios of bonds held for trading and strategy in Israeli and foreign currency, managed by the Asset Management Department, as well as derivatives used for executing strategies. The portfolio also includes hedging transactions for instruments included in the trading portfolio. The trading portfolio is exposed, *inter alia*, to the following risk factors: Foreign exchange exposures, interest exposures and options-related exposures.

In general, all derivatives transactions are conducted by the Trading Room, with external counter-parties and are classified under the trading portfolio when contracted. The transactions classified to the bank portfolio are specific transactions which, prior to conducting them, a decision was made and documented to conduct them for the bank portfolio.

Organizational structure of market and interest risk management function

The Bank has put in place an organizational structure for management of market risks and interest risks in the bank portfolio, which includes the Board of Directors, management and the three lines of defense. This structure is supported by special committees and forums, created for such risks management and in order to create an internal controls system, designed to prevent deviation from Bank policy in its activity in the trading portfolio and in the bank portfolio.

Upon any unusual occurrence in the capital market, such as an unexpected change in interest rates, fluctuations in the foreign currency markets, changes in fiscal and/or monetary policies, the special committees and forums created by the Bank for such situations, convene for a special discussion in order to reach the decisions required by these occurrences.

Below is the organizational structure created at the Bank for management and control of market and interest risk:

Bank Board of Directors – The Bank Board of Directors approves, at least once per year, the policy documents which cover the management of exposures to market and interest risks in the bank portfolio. The policy on management of market and interest risks, management of the bond portfolio and the specific policy on derivatives risk and OTC transactions, after discussion and approval by the Risk Management Committees of the Finance Division, the Risk Monitoring Forum headed by the CRO, by Bank management and by the Board of Director's Risk Management Committee. The documents outline, *inter alia*, the authority ranking for market risks management, the risk appetite (exposure restrictions) and the frequency of discussions and reporting of exposure status at different levels. The risk appetite framework specified by the Board of Directors was broadened by management guidelines (restrictions), set lower than the Board of Directors restrictions, in order to allow exposure to be reduced even before it deviates from the risk appetite specified by the Board of Directors. The risk appetite is specified under normal and stress conditions, by a range of benchmarks which restrict market risk; in addition, specific risk appetite benchmarks were specified with respect to interest risk in the bank portfolio and with respect to Bank activity in the trading portfolio. The Board of Directors restrictions and management guidelines reflect the risk appetite, which is consistent with the Bank's overall risk appetite, business strategy, liquidity planning, financing sources and capital planning at the Bank.

The Bank maintains interfaces vis-à-vis subsidiaries with regard to setting risk appetite for the Group. Reports by Group entities about the risk profile in view of the risk appetite are presented in the Bank's quarterly Risks Document.

The Bank President & CEO – heads the Asset and Liability Management Committee (ALMC), which is the advisory entity to the President & CEO with regard to market and interest risks. This committee generally meets once a month, or more frequently, when special developments in the various markets occur or are forecast. The Bank President & CEO is responsible for setting policy and guidelines for exposure, subject to exposure limits approved by the Board of Directors. This includes making business decisions with regard to management of market and interest exposures, approval of proactive exposure strategies, hedging and risk mitigation moves and new products for management of market and interest risk under the management approval track.

First line of defense – Lines of business management

The head of the Finance Division (CFO) manages all financial risk at the Bank, including market and interest risk. The internal Risks Management Committee serves as the advisory body for the Division Manager. The committee convenes weekly to discuss current aspects of the management of assets and liabilities. This committee is also attended by representatives of the Risks Control Division.

The Manager, Finance Division specifies guidelines for current operations of market and interest risks management, subject to restrictions specified by the Board of Directors and by management.

When a financial event is identified and declared, which requires special preparation, the Manager, Finance Division convenes – with approval of the President & CEO, a special forum to discuss and make decisions on how to handle the event. The operation of this forum is incorporated in a specific procedure.

Second line of defense – Risks Management Function

The Manager, Risks Control Division (the Chief Risks Officer – CRO) is responsible for the overall Risk Owner framework. The Risks Monitoring Forum for market, interest and liquidity risks, serves as the advisory body to the Chief Risks Officer with regard to management of Bank exposure to market and interest risks in the bank portfolio, which is convened at least once every two months. The Forum, including inter alia representatives from the Financial division and from the Risks Control Division, regularly monitors the market and interest risk profile of both the Bank portfolio and the trading portfolio, including individual activity in the trading room, as well as the outcomes of stress scenarios and back-testing. They also discuss and approve methodologies for risk management and control, including measurement methods which could support portfolio monitoring operations, addressing the various aspects of risk management and control for market and interest risk, including conclusions derived from validation processes of the relevant models, conducted by the Risks Control Division. Control and monitoring of market and interest exposures is handled in the second line of defense by: A dedicated unit for control of market and liquidity risks, in the Risks Control Division.

Third line of defense – Internal Audit

Internal Audit serves as the third line of defense within corporate governance for risks management at the Bank, conducting regular control to review and assess the effectiveness of internal controls at the Bank, in accordance with the multi-annual work plan of the Internal Audit Division.

Scope and nature of reporting and measurement systems

Measurement of market and interest risks is supported by information systems, models, processes, risk benchmarks and stress scenarios. The information systems involved in the calculation are regularly reviewed, through internal controls processes at the Bank and continuous validation processes. The Bank has a central system used for management and control of market and interest risk. The system is used to calculate risk benchmarks and to review these vs. risk limits. Calculations are based on a central database of market and position data. Calculation is automated and is conducted at a daily level. The system is also used for calculation of capital allocation with respect to market risks and credit risks. Risk owners also use another system, as a complementary system for development and maintenance of calculations, ad-hoc analysis and risks management models. The Middle Office uses a custom system to monitor and control trading room activity; this system operates in real time to monitor and locate any unusual activity. This system allows for complete documentation of the activity with high-level analysis capabilities and trends with regard to risk and profitability, as well as a system for call analysis which generates alerts based on business laws.

Market risk using the standard approach

Below are capital requirement components under the standard approach for market risk (NIS in millions):

	Risk assets as of:	
	December 31, 2022	**December 31, 2021**
Direct products		
Interest rate risk (general and specific)	1,090	2,037
Position risk in shares (general and specific)	44	40
Foreign currency risk	125	178
Commodities risk	–	–
Options	–	–
Delta Plus approach	42	13
Securitization	–	–
Total	1,301	2,268

Total exposure in the tradeable portfolio is low, primarily due to interest risk. The decrease in risk assets with respect to interest risk, despite the increase in activity volume, is primarily due to reduced open positions in derivatives, in conformity with definition in the standard approach.

Additional information about market risk

Financial derivatives

Operations involving financial derivatives are conducted in the trading room, both for trading portfolios managed in the trading room and for various customers, including for the financial management sector, to hedge exposures in the bank portfolio. Operations involving financial derivatives pose a range of risks, primarily the following: Market risks, managed as part of market and interest risk management in the trading portfolio and in the bank portfolio, operational risk and compliance risk, managed under the overall management framework of operational risk and compliance risk, including administrative enforcement and counter-party credit risk. Counter-party credit risk vs. different entities is managed in conformity with Bank policy on counter-party credit risk management, as set forth above in chapter "Counter-party credit risk" and in chapter "Credit" with regard to the capital market segment.

Management of positions in trading portfolio

The trading portfolio mostly consists, as noted above, of portfolios managed by the trading room, subject to exposure limits by various risk benchmarks based, *inter alia*, on scenarios involving changes to risk factors. Risk is measured during the trading day and at the end of the trading day. Risk is managed by the trading room and is constantly monitored, intra-day and daily, by the Middle Office, the Trading Room Control Department of Risks Control.

The Bank operates a committee for management of operational risk in the trading room, which discusses bi-monthly the operations of the trading room, compliance with risk limits, measuring profit vs. risk, unusual events and so forth. Reports of this activity are also presented to management's Asset and Liability Management Committee and in the quarterly Risks Document discussed by the Board of Directors.

Developments in market risk

Risk values in the different benchmarks (analysis of interest risk in Bank portfolio) indicate exposure in economic fair value to higher interest rates, due to the position structure composed of uses for medium and long terms vs. sources for short to medium terms. Risk values were affected both by current mortgage performance and deposit operations, as well as proactively conducting transactions involving derivatives and activity in the bond portfolio.

Overall market risk is categorized as Low-Medium.

The risk profile is within the specified risk appetite ranges. There were no deviations from the specified risk appetite in 2022. In case of deviation from the specified risk appetite, it is brought for approval by management and/or by the Board of Directors, depending on the ranking specified in the relevant policy document.

Interest risk in bank portfolio and in trading portfolio

Targets and objectives in management of interest risk in the bank portfolio

Definition of interest risk in the bank portfolio for the purpose of risk control and measurement

As noted above, the bank portfolio constitutes most of the activity which generates interest risk for the Bank.

Management of interest risk in the bank portfolio and risk mitigation strategies

Management of interest risk is in conformity with Proper Conduct of Banking Business Directive333. The directive requires the Bank to measure risk by several measurement methods (but one primary method may be chosen for regular management purposes), the measurement systems are required to support measurement of interest risk in the entire portfolio, as well as separately in the bank portfolio and in the trading portfolio. The directive requires banks to apply a range of scenarios to estimate risk, but also defines a "standard shock scenario", where exceptional results of such scenario must be immediate reported to the Supervisor of Banks.
Interest risk is managed using two approaches: the earnings approach and the economic value approach. The Bank has specified the economic value approach to be the key method for risk management – but has developed another model, based on the earnings approach.
The EVE (Economic Value of Equity) model is the Bank's main model for estimating interest risk in the bank portfolio. The EVE model reviews the effect of changes to interest rate curves on the economic value of the bank portfolio, the trading portfolio and the overall portfolio (negotiable + bank), under various assumptions with regard to changes in interest rate curves (by operating segment, such as: derivatives, deposits and mortgages, by linkage basis). Assumptions about changes to the interest rate curve under normal and stress situations, including corresponding upwards/downwards shifts of the interest rate curve at high rates and scenarios involving steeper, flatter and a brief shock to interest rate curves.
The Bank handles interest risk in the bank portfolio and overall additional capital allocation with respect there to, in conformity with Basel Pillar 2.

Earnings approach – calculation of a financing margin, i.e. the difference between (cumulative) interest revenues received across all uses and (cumulative) interest expenses paid across all sources. The financing margin model allows the Bank to review expected earnings under different operating assumptions (turnover under different balances, for both assets and liabilities, changes in interest rate curves, assuming operations in conformity with work plans), including sensitivity analysis to changes in various interest rate curves.
The calculation is made by advanced computer systems developed by the Bank, at the individual transaction level. This model serves as a decision support system for Risk Managers at the Bank.
The earnings approach is applied at two levels: static and dynamic. At the static level – calculation of net financing revenues for the Bank at a certain point in time. At the dynamic level – calculation of financing revenues under different interest operating scenarios for the coming year.

A major tool for management and mitigation of interest risk is setting fund transfer pricing at the Bank (FTP). Fund transfer prices (FTP) are determined daily at the Bank by the Asset and Liability Management Department of the Financial Management Sector and reflect the needs for management of various exposures under the policy on risk / reward management.

Another tool is buying / selling government bonds. The Asset and Liability Management Department o the Financial Management Sector also manages the interest and/or basis position through forward contracts, swap transactions and options. The advantages of using these tools stem from the ability of rapid execution at large amounts, which allows the Bank to "move positions" within a reasonable time frame for asset and liability management. In addition, these transactions are unfunded, are highly liquid and are conducted through the Bank's trading room.

The Bank reviews the concentration of interest risk by linkage segment and by major instrument type. The concentration map is discussed annually by risks management committees.

Interest risk benchmarks in the bank portfolio and stress scenarios

The economic value of the different portfolios is calculated as the present value of cash flows from Bank assets (exposed to changes in interest rates), net of the present value of cash flows from Bank liabilities (exposed to changes in interest rates). The change in economic value due to changes in interest rate curves (the EVE benchmark) is calculated as the difference between future cash flows of asset and liabilities discounted at current interest rates, and the difference discounted at expected interest rates under interest rate scenarios. Future forecasting of financial instruments is made in conformity with generally accepted practice around the world for calculating fair value.

Description of model assumptions

As noted above, the model actually used to measure interest risk at the Bank is the EVE model, based on the bank portfolio only, as opposed to the table below which refers to the Bank in its entirety. Moreover, capitalization curves are different, with EVE based on transfer price curves, because the Bank is only interested in managing changes to transfer price interest rates using this model, and not to credit / deposit spreads, as an example.

Hedging against interest risk in the bank portfolio

Derivatives transactions, which are identified as hedging balance sheet positions in accordance with accounting rules, are to be specified as hedge accounting transactions, in accordance with the Bank's hedging procedure. Hedge effectiveness is the degree of correlation between changes in fair value or between cash flows of the hedged item and of the hedging derivative. The hedge is considered highly effective if the changes in fair value or cash flows of the hedged item, are nearly fully set off by changes in fair value or cash flows of the hedging instrument. Hedge effectiveness is tested quarterly.

Derivatives in the bank portfolio used for economic hedging of balance sheet activity, or which cannot be defined as an accounting hedge, impact accounting profit and loss. The gap derives from difference in accounting treatment between balance sheet items and derivatives other than accounting hedges. This effect is regularly monitored and managed subject to guidelines specified by management, by the Financial Management Sector and is reported and discussed by various risk management committees.

At least once a year, the Bank reviews the underlying assumptions of models used to manage market and interest risks, including behavioral assumptions made in order to determine forecasting of certain instruments. The sensitivity of risk values to changes in behavioral assumptions are reviewed regularly.

Description of key assumptions in various models and parameters used for calculation

Calculation of net fair value of financial instruments:

- Fair value was calculated based on estimates with regard to the possibility of early repayment, based on statistical / empirical analysis.
- The early repayment assumptions in mortgages are based on empirical testing and on a borrower behavior model with regard to early repayment rate out of all mortgages, on annual basis. These assumptions are verified from time to time against actual early repayment, in each linkage segment and interest type, separately short and long original loan terms.
- Early repayment assumptions for deposits and savings plans with early withdrawal options (bearing fixed or variable interest, CPI-linked or non-linked), where interest terms are known in advance, are based on empirical analysis and are reviewed and revised from time to time.
- Checking account balances are attributed using a statistical model which reflects their nature as a stable source.

Change in interest revenues, net:

- This calculation reviews annual financing profitability (12 months ahead) under a scenario of change to risk-free interest rate and assuming re-financing of all balances maturing up to 12 months ahead.
- Assumptions for creating future cash flows in this model: Attribution refers to all Bank activity (on-balance sheet, derivatives and investment of excess liquidity) for a one-year horizon, based on behavioral options for early mortgage repayment, early withdrawal of deposits and attribution of credit balances in checking accounts. The change in revenues also includes an estimate for the early repayment commission.

Analysis of interest risk in bank portfolio

Below is the effect[1] of a parallel shift of the curve by 2% on the economic value of the Bank's portfolio in EVE terms (NIS in millions):

	December 31, 2022					
	Change in fair value					
	Israeli currency		Foreign currency			
	Non-linked	Linked to CPI	USD	EUR	Other	Total
2% increase	(878)	(2,435)	459	20	22	(2,812)
2% decrease	895	2,519	(449)	21	(25)	2,961
	December 31, 2021					
2% increase	(905)	(1,187)	418	14	16	(1,644)
2% decrease	(82)	427	(439)	14	(17)	(97)

(1) Calculated based on current data used for actual interest risk management.

In preparing the mortgage repayment cash flows forecast for the Bank, assumptions with regard to the prepayment rate and manner are taken into account. Credit balances in checking accounts are attributed in line with common practice in conformity with the Basel directives, i.e. over an average term of 3-4 years for different customer types.

Below is the VAR for the Bank Group (NIS in millions):

	2022	2021
At end of period	759	592
Maximum value during period	(Jul.) 1,018	(Feb.) 810
Minimum value during period	(Apr.) 533	(Oct.) 521

Back-testing of the historical-analytic VAR model in the overall portfolio showed no profit/loss observations which deviate from the VAR model forecast in a number deviating from the criteria specified by the Basel Committee for review of the VAR model quality.

Quantitative information about interest risk in bank portfolio and in trading portfolio

Net adjusted fair value[1] of financial instruments of the Bank and subsidiaries thereof (NIS in millions):

	As of December 31, 2022				
			Foreign currency		
	NIS – Non-linked	NIS – CPI-linked	USD	Other	Total
Financial assets[(2)]	292,939	76,704	31,811	8,282	409,736
Other amounts receivable with respect to financial derivatives, complex and off-balance sheet financial instruments	199,798	5,556	212,986	20,009	438,349
Financial liabilities	(274,889)	(47,214)	(56,731)	(9,432)	(388,266)
Other amounts payable with respect to financial derivatives, complex and off-balance sheet financial instruments	(223,713)	(7,463)	(187,414)	(19,184)	(437,774)
Net fair value of financial instruments	(5,865)	27,583	652	(325)	22,045
Effect of liabilities with respect to employee rights	(545)	(2,283)	-	-	(2,828)
Effect of attribution of on-call deposits to terms	1,638	-	443	672	2,753
Adjusted net fair value	(4,772)	25,300	1,095	347	21,970
Of which: Banking portfolio	(6,070)	22,502	1,184	350	17,966
	As of December 31, 2021				
Financial assets[(2)]	287,860	72,625	20,176	6,106	386,767
Other amounts receivable with respect to financial derivatives, complex and off-balance sheet financial instruments	200,091	5,632	196,112	18,832	420,667
Financial liabilities	(254,768)	(54,862)	(48,666)	(8,600)	(366,896)
Other amounts payable with respect to financial derivatives, complex and off-balance sheet financial instruments	(228,212)	(8,718)	(167,195)	(16,644)	(420,769)
Net fair value of financial instruments	4,971	14,677	427	(306)	19,769
Effect of liabilities with respect to employee rights	(173)	(2,343)	-	-	(2,516)
Effect of attribution of on-call deposits to terms	922	-	172	69	1,163
Adjusted net fair value	5,720	12,334	599	(237)	18,416
Of which: Banking portfolio	3,270	11,085	3,278	(1,028)	16,605

Impact of change scenarios in interest rates on net adjusted fair value[1] of the Bank and its subsidiaries (NIS in millions):

	As of December 31, 2022					As of December 31, 2021				
			Foreign currency					Foreign currency		
	NIS – Non-linked	NIS – CPI-linked	USD	Other	Total	NIS – Non-linked	NIS – CPI-linked	USD	Other	Total
Concurrent changes										
Concurrent 1% increase	117	(925)	57	282	(469)	254	(197)	57	77	191
Of which: Banking portfolio	106	(893)	60	280	(447)	252	(157)	68	72	235
Concurrent 1% decrease	(293)	934	(189)	(300)	152	(394)	97	(110)	(83)	(490)
Of which: Banking portfolio	(282)	899	(192)	(299)	126	(388)	55	(121)	(78)	(532)
Non-concurrent changes										
Steeper[(3)]	(688)	(346)	63	70	(901)	(352)	112	(52)	20	(272)
Of which: Banking portfolio	(658)	(238)	60	68	(768)	(342)	131	(60)	19	(252)
Shallower[(4)]	854	218	17	8	1,097	457	(146)	85	2	398
Of which: Banking portfolio	834	149	21	9	1,013	444	(158)	96	2	384
Short-term interest increase	516	(520)	177	156	329	618	(304)	120	43	477
Of which: Banking portfolio	520	(497)	181	156	360	599	(300)	134	41	474
Short-term interest decrease	(384)	720	(181)	(159)	(4)	(415)	500	(125)	(43)	(83)
Of which: Banking portfolio	(387)	697	(185)	(159)	(34)	(395)	496	(138)	(43)	(80)

(1) Net fair value of financial instruments, except for non-monetary items, after effect of liability with respect to employee rights and attribution of on-call deposits to terms.
(2) Excludes balance sheet balances of financial derivatives, fair value of off-balance sheet financial instruments and fair value of complex financial instruments.
(3) Short-term interest decrease and long-term interest increase.
(4) Short-term interest increase and long-term interest decrease.

The difference between exposure of the bank portfolio to changes in interest according to net adjusted fair value and sensitivity of economic value (EVE) presented above, under a 1% concurrent shift of the curve, amounts to NIS 1,094 million.

Most of this difference is due to use of different capitalization curves. The capitalization curves used to analyze sensitivity of economic value (EVE) are transfer pricing curves, while discount rates used to present net adjusted fair value are possible discount rates for similar transactions on the balance sheet date, reflecting the inherent risk for a similar customer.

This calculation allows for scenarios which may result in negative interest rates and does not cap interest rates at 0%.

See Note 33 to the financial statements for additional information.

Note that the internal rate of return and the average effective duration, as presented under Bank exposure to changes in interest rates on the Risks Report, are average data and therefore it is not possible to make deductions based on a linear change there to with regard to sensitivity of net adjusted fair value to changes in interest rates.

Below is impact of change scenarios in interest rates on net interest revenues and non-interest financing revenues[1] (NIS in millions):

	As of December 31, 2022			As of December 31, 2021		
	Interest revenues	Non-interest financing revenues[3]	Total	Interest revenues	Non-interest financing revenues[3]	Total
Concurrent changes[2]						
Concurrent 1% increase	472	26	498	1,291	30	1,321
Of which: Banking portfolio	472	28	500	1,291	47	1,338
Concurrent 1% decrease	(1,100)	(272)	(1,372)	(1,158)	(36)	(1,194)
Of which: Banking portfolio	(1,100)	(274)	(1,374)	(1,157)	(59)	(1,216)

(1) For a one-year term.
(2) Changes to risk-free interest.
(3) Includes the effect of fair value, gain (loss) from transactions in bonds and the effect of interest accrual for transactions in derivatives.

Below are the key assumptions underlying the above data, which are in line with how the Bank manages interest risk:

- Credit balances in checking accounts are attributed in line with common practice in conformity with the Basel directives, i.e. over an average term of 3-4 years for different customer types.
- As from 2021, when calculating sensitivity of interest revenues, the risk-free interest rate is not capped at a minimum of 0%. In the same way, no cap is applied to the discount rate at 0% when calculating non-interest financing revenues.
- Given the change in the interest rate environment, behavioral assumptions were updated with respect to current account balances in credit and the securities portfolio. The assumption is that under a scenario of rising interest rates, funds would be diverted from current account balances to interest-bearing deposits, as well as changes to bonds in the nostro portfolio.

For further details of assumptions used in calculation of the fair value of financial instruments, see Note 33 to the financial statements.

Additional information about interest risk

Exposure of the Bank and its subsidiaries to changes in interest rates

Reported amounts (NIS in millions)

	As of December 31, 2022						–
	On Call to 1 month	**Over 1 month to 3 months**	**Over 3 months to 1 year**	**Over 1 year to 3 years**	**Over 3 years to 5 years**	**Over 5 years to 10 years**	–
Financial assets[1]	257,991	11,924	26,023	48,899	28,933	21,977	–
Other amounts receivable[2]	157,885	103,900	110,783	39,773	12,944	11,408	–
Financial liabilities	178,751	29,198	61,494	56,525	34,577	23,308	–
Other amounts payable[2]	158,009	103,378	111,486	39,943	13,151	11,778	–
Exposure to interest rate fluctuations	79,116	(16,752)	(36,174)	(7,796)	(5,851)	(1,701)	–
Additional details on exposure to changes in interest rates							–
A. By nature of activity:							–
Exposure in bank portfolio	78,022	(16,996)	(36,304)	(8,103)	(6,210)	(2,156)	–
Exposure in trading portfolio	1,094	244	130	307	359	455	–
B. By linkage basis:							–
Israeli currency – non-linked	68,905	(27,015)	(24,103)	(21,423)	(8,752)	1,491	–
Israeli currency – linked to the CPI	(1,766)	1,853	1,438	16,039	6,408	(2,654)	–
Foreign currency [4]	11,977	8,410	(13,509)	(2,412)	(3,507)	(538)	–
C. Effect on exposure to interest rate fluctuations							–
Effect of liabilities with respect to employee rights	(15)	(25)	(295)	(325)	(285)	(581)	–
Effect of attribution of on-call deposits to terms	26,590	472	(1,663)	(8,125)	(8,568)	(6,593)	–
Effect of early repayment of residential mortgages	645	1,215	4,676	6,240	428	(21)	–
Effect of other behavioral assumptions	(1,143)	(1,614)	(84)	2,180	11,672	1,705	–

Specific remarks:

(1) Excludes balance sheet balances of financial derivatives, fair value of off-balance sheet financial instruments and fair value of complex financial instruments. After effect of attribution of on-call deposits to terms

(2) Amounts receivable and payable with respect to financial derivatives, complex and off-balance sheet financial instruments, after effect of employee rights liabilities.

(3) Weighted average by fair value of average effective duration.

(4) Includes Israeli currency linked to foreign currency.

(5) Difference between effective average duration of financial assets and effective average duration of financial liabilities.

General remarks:

- In this table, data by term represents the present value of future cash flows from each financial instrument, discounted using the interest rate which discounts them to the fair value consistent with assumptions according to which fair value was calculated for the financial instruments in Note 33 to the financial statements.
- Internal rate of return is the interest rate which discounts the expected cash flows from a financial instrument to its fair value recognized under Note 33 to the financial statements.
- Average effective duration of a group of financial instruments is an approximation of the change, in percent, in fair value of the group of financial instruments which would be caused by a minor change (0.1% increase) in the internal rate of return of each of the financial instruments.
- Certain transactions conducted by the Bank constitute complex financial instruments, which include embedded derivatives not detached, in accordance with Public Reporting Directives. These transactions include, inter alia, loans with exit points, deposits bearing graduated interest rates with withdrawal dates, credit and deposits with guaranteed minimum and deposits with optional linkage. The Bank reflects the interest rate risk with respect to these instruments in a reasonable manner, by spreading maturities of the cash flows in accordance with contract dates, and with various assumptions based on past experience.

Over 10 years to 20 years	Over 20 years	Without maturity	Total fair value	Internal rate of return	Average effective duration[3]	As of December 31, 2021 Total fair value	Internal rate of return	Average effective duration[3]
				In %	in years		In %	in years
11,816	1,350	823	409,736	4.34	1.37	386,767	2.36	1.38
997	659	-	438,349		0.66	420,667		0.57
1,700	(43)	3	385,513	2.94	1.17	365,733	0.59	1.27
1,680	1,177	-	440,602		0.77	423,285		0.60
9,433	875	820	21,970			18,416		
8,044	869	800	17,966		0.10	16,605		0.10
1,389	6	20	4,004		4.55	1,811		2.11
4,921	437	767	(4,772)		[5]0.08	5,720		(5)0.09
3,907	65	10	25,300		[5]0.25	12,334		(5)0.10
605	373	43	1,442		[5](0.21)	362		(5)(0.10)
(768)	(534)	-	(2,828)	1.68	10.74	(2,516)	(0.08)	10.45
640	-	-	2,753	(2.77)	1.02	1,163	(1.10)	0.78
(8,030)	(3,308)	-	1,845	0.01	(0.96)	(2,478)	0.02	(1.67)
(7,687)	(3,308)	-	1,721	(0.15)	(0.46)	(2,061)	(0.10)	(1.28)

Shares

Policy on holding shares in the bank portfolio

Bank policy with regard to investment in shares is to realize the current portfolio and individually review any new investments. Shares in which the Bank invested were acquired for the purpose of earning capital gains, and are presented at fair value in the available-for-sale security portfolio and under investment in associated companies, where the Bank has a material investment in such entity.

Holdings with expected capital gain and holdings purchased for other purposes

Investments in non-banking corporations are managed by the Business Banking Division. The steering committee for investments in non-banking corporations convenes quarterly and advises Bank management on investments in non-banking corporations. The steering committee is responsible for management and maintenance of the existing portfolio, trying to improve it so as to allow for rational realization of this portfolio within a reasonable time frame but with no specified schedule, in order to allow for maximum returns.

Accounting treatment

About 28% of investments in shares by the Bank are negotiable and presented at their market value. The remainder of these investments are presented at cost or at their carrying amount. In case of impairment of a non-temporary nature, in accordance with management's assessment, a provision for impairment of the investment is recorded as a loss in the Bank's accounts.

For more information about equity investments in the bank portfolio, see chapter "Major investees" on the Report by the Board of Directors and Management and Note 12 to the financial statements.

Below is information about the composition of equity investments in the bank portfolio (NIS in millions):

	December 31, 2022		December 31, 2021	
	Fair value	Capital requirement(1)	Fair value	Capital requirement(1)
Shares	548	54	560	75
Venture capital / private equity funds	231	47	235	40
Total investment in shares in bank portfolio	**779**	**101**	**795**	**116**

(1) The capital requirement was calculated at 12.5%.

Liquidity risk

Liquidity risk – risk due to uncertainty about resource availability and the capacity to realize assets in a specified time at a reasonable price.

Liquidity risk is a unique, material risk due to the need to respond to such risk within the shortest time possible. Materialization of this risk may cause the Bank to incur significant losses, or may even bring about collapse of the Bank.

Liquidity risk management – objectives and policies

The objective of liquidity risk management is to identify financing needs and sources of the Bank, to establish procedures for monitoring liquidity and setting minimum requirements for liquidity management.

Liquidity risk is managed in conjunction with Proper Conduct of Banking Business Directive 310 "Risks management", Directive 342 "Liquidity risk management", Directive 221 "Liquidity coverage ratio" and Directive 222 "Net stable funding ratio". The risk is managed subject to the limitations of the Board of Directors and Executive Management in an effort to minimize the losses deriving from an investment of surplus liquidity in assets that are highly liquid, but have a low yield.

Proper Banking Conduct Directive 221 "Liquidity coverage ratio" stipulates minimum liquidity ratios of 100% under stress scenario, for 30 days ("Regulatory LCR") of high-quality liquid assets to liquidity needs over this time period. As part of its risks management policy, the Bank's Board of Directors specified that additional safety cushions are to be maintained, beyond the regulatory minimum ratio; so that the target liquidity coverage ratio for the Bank and the Group would by 5% higher than the minimum required. This ratio is managed and reported for all currencies in aggregate and for NIS separately, both at Bank

level and on Group basis. The ratio for the Bank solo and the consolidated ratio are calculated daily and reported as the average of daily observations over 90 days prior to the report date.

Proper Conduct of Banking Business Directive 222 "Net stable funding ratio" stipulates a minimum net stable funding ratio of 100% ("Regulatory NSFR") of available stable funding and required stable funding. As part of its risks management policy, the Bank's Board of Directors specified that additional safety cushions are to be maintained, beyond the regulatory minimum ratio; so that the net stable financing ratio for the Group would be 5% higher than the minimum required. This ratio is managed and reported in total for all currencies, on consolidated basis. The reported ratio in the quarterly report is the ratio on consolidated basis as of December 31, 2022.

These directives are in addition to liquidity risk management using internal models and to qualitative requirements, as stipulated by Directive 342.

Liquidity risk management is governed by a policies document submitted annually or more frequently for approval by the Board of Directors. The policies document covers how risk is managed, including roles and responsibilities of the various organs, the regular management of liquidity risk, all parameters used for risk measurement in the normal course of business and under various stress scenarios, restrictions specified by the Board of Directors and by management, including restrictions on source concentration and composition, as well as a detailed emergency plan for handling a liquidity crisis, including various states of alert for liquidity risk management and potential means under each scenario type and the estimated time for execution.

Current and periodic management of liquidity risk is conducted on a Group basis, with due attention to legal, regulatory and operating restrictions on the capacity to transfer liquidity and includes monitoring of restrictions set by the Board of Directors and management as well as risk indicators, including with regard to financing source concentration, liquidity exposures at Bank and Group level as well as liquidity gaps resulting from on- and off-balance sheet operations.

The Bank's liquidity management is proactive and strict, including diverse tools for mitigating liquidity risk, both in using detailed models int different world situations, in strict maintenance of liquid means with minimal credit risk which may be immediately realized, and in active management of sources for diversification and extension of the term to maturity and diversification of sources. The Bank has a Liquidity Forum, which convenes daily, under the responsibility of the Finance Division, which discusses the liquidity situation and strives to align the liquidity "needs" of different Bank units with the liquidity "providers" and liquidity managers. In addition, a forum headed by the Finance Division Manager operates at the Bank, for regular monitoring of the implementation of the minimum liquidity coverage ratio directive (Directive 221) and the net stable funding ratio (Directive 222) and compliance with targets for all business units at the Bank for raising and management of resources. The Risks Control Division also conducts regular, independent controls over risk benchmarks, risk development and event debriefs, as needed.

The Liquidity Department is responsible for intra-day management of liquidity in Israeli and foreign currency. Daily liquidity management is conducted while maintaining a minimal reserve, as determined from time to time, in order to make unexpected payments. Balances are managed in conformity with the Bank of Israel directives (liquid assets), which require the Bank to maintain liquid assets against deposits in Israeli and foreign currency, at rates as specified in the directive. Any failure to comply with these directives would be reported to Bank management and to the Board of Directors soon after its occurrence.

If unusual changes in balances are observed during the day, in Israeli or foreign currency, an evaluation is conducted in terms of compliance with limits of the liquidity risk management model, and a decision is made as to whether proactive steps should be taken in response. Such steps may include conducting proactive transactions, contacting major customers etc.

As noted above, restrictions have been specified by the Board of Directors and by management for liquidity ratios under various scenarios, including for terms other than one month and in the normal course of business.

The Bank's emergency financing plans refer to management of each emergency and specify the management team responsible for handling it (by level). These plans include detailed specification of additional liquid means for use in emergency as well as a list of operative steps (and the entity authorized to lunch them), also referring to management of communications, both internal and external.

Business model

The policy on liquidity risk management is an integral part of strategic business management at the Bank and the Group and is aligned with Proper Conduct of Banking Business Directives 310 (Risk management), 342 (Liquidity risk management) and 221 (liquidity coverage ratio) and 222 (Net stable funding ratio).

As noted above, the Bank's Board of Directors specified that additional safety cushions are to be maintained, beyond the regulatory minimum ratios, so that the target liquidity coverage ratio and the net stable funding ratio for the Bank and the Group would be 5% higher than the minimum required. Bank management has specified additional safety cushions as guidelines, so as to avoid deviation from the Board of Directors' targets. It is Bank policy to maintain a liquidity coverage ratio and a net stable funding ratio including an appropriate safety margin relative to the Board of Directors' limits, along with efficient management of excess liquidity, in order to achieve maximum return for the Bank.

Approach to liquidity risk policy and setting limitations

The Bank's Board of Directors sets strategy for liquidity risk management and the risk appetite in conformity with regulatory requirements, using a range of restrictions on three risk dimensions: Normal course of business, scenarios (liquidity coverage ratio, net stable funding ratio and minimum liquidity ratio – internal model) and concentration. Bank management has specified a further set of restrictions to serve as management guidelines – beyond those specified by the Board of Directors.

Organizational structure for liquidity risk management

The Liquidity Risk Owner at the Bank is the Manager, Finance Division.

Liquidity risk management is conducted in conjunction with the general risks management framework at the Bank. This framework includes the following:

- First line – risk managers at the Finance Division
- Second line – risk controllers at the Risks Control Division
- Third line – Internal Audit.

All Bank units have some impact on liquidity risk. The policy document stipulates the requirement for co-ordination between these units, in order to create a uniform methodology to be used by the Bank for regular management of liquidity risk, compliance with daily requirements of financing needs, and preparation for potential emergencies, including adoption of immediate actions to properly address such emergencies.

Reports to management and to the Board of Directors

The Bank's Board of Directors and management receive various reports on a daily, weekly, monthly and quarterly basis, including reporting of compliance with limits specified by the Board of Directors and management, states of alert, cost of sources, data with regard to changes in balance sheet balances for deposits and credit, and any other information which the liquidity risk owner deems relevant for the report, including unusual events in liquidity management and unusual developments in the Bank's liquid sources. In 2022 there were no recorded deviations from the Board of Directors' restrictions.

Measurement tools and benchmarks

The Bank measures and monitors risk, primarily using the following models:

- Standard model – This model estimates the liquidity coverage ratio (LCR), which is the ratio of liquidity cushion to forecasted net outgoing cash flow. The forecasted net outgoing cash flow is defined as the difference between payments (cash outflows, with respect to liabilities) and receipts (cash inflows, with respect to assets) for a one-month term. This ratio is calculated under standard (uniform) coefficients specified by the Supervisor of Banks in Proper Conduct of Banking Business Directive 221 (Liquidity coverage ratio) and based on directives of the Basel III Committee.
- The dynamic liquidity coverage ratio (DLCR) is a key supporting tool for risk management and monitoring. For calculation of the DLCR, the daily LCR is calculated for 90 days ahead under multiple assumptions. The DLCR is calculated for the overall ratio and for the ratio in foreign currency, and is reported in the daily liquidity report.
- Internal model (minimum liquidity ratio – in conformity with Directive 342) – This model estimates the ratio of liquidity cushion to forecasted net outgoing cash flow, as required by Directive 342 and in conformity with Basel directives. In this model, stress scenarios were defined in Israeli and foreign currency, for different time horizons, based on behavioral attributes of depositors and on risk focal points, in line with the various scenarios.
- Standard model – This model estimates the Net Stable Funding Ratio (NSFR) – the ratio of stable funding sources (Available Amount of Stable Funding) – existing sources which are highly likely to be available to the banking corporation within 1 year or longer to total long-term uses (Required Amount of Stable Funding) – existing uses which the banking corporation is likely to be required to fund within 1 year or longer). This ratio is calculated under standard (uniform) coefficients specified by the Supervisor of Banks in Proper Conduct of Banking Business Directive 222 (Net stable funding ratio) which became effective on December 31, 2021 and based on directives of the Basel III Committee.
- Dynamic Net Stable Funding Ratio (DNSFR) is a tool used to assist in risk management and monitoring. DNSFR includes calculation of the ratio over a one-year horizon forward, subject to multiple assumptions. DNSFR is calculated for the overall consolidated ratio, and is reported as part of the daily liquidity report.
- Contractual liquidity differences – Review of balance sheet differences between inflows and outflows, with no behavioral assumptions and with no coefficients applied.

The Bank also applies tools for monitoring liquidity risk using endogenous and exogenous indicators, which may point to an increase in risk up to crisis status. The Bank developed an integrated benchmark for monitoring financial markets in Israel, in order to identify any instability in the financial system in Israel – this benchmark is a decision-support tool for declaring a state of alert due to systemic failure.

The Bank's Board of Directors and management receive various reports at daily, weekly, monthly and quarterly frequency – including reports of unusual events in liquidity management and unusual developments in the Bank's liquid sources. In 2022 there were no recorded deviations from the Board of Directors' restrictions.

The Bank reviews liquidity ratios both in the normal course of business and under certain scenarios. In the normal course of business, the Bank assumes no difficulty in conversion transactions between currencies. Furthermore, excess liquidity available for investment for a period of one year ahead is calculated, with no assumptions on raising new funds.

The scenarios used to review the liquidity ratios consist of three main scenarios (specific, system-wide and combined) and three additional scenarios (short specific, overseas system-wide and long combined), as set forth below:

- Main stress scenarios:
  - Specific – specific operational event / material lowered rating (by at least three notches) – scenario of embezzlement and/or disruption of Bank operations, including a prolonged disruption to its IT Systems.
  - System-wide – scenario involving a market emergency due to war, unusual defense events or financial events, which disrupt the normal day-to-day life in Israel, including the local capital markets.
  - Combined – system-wide event with expected implication for the Bank that is more severe than its expected implication to other banks, such as a crisis in the real estate market.
- Other stress scenarios:
  - Short specific – scenario describing a very high pressure due to lowered rating of the Bank; in this scenario, the impact is short but more significant than in the main stress scenarios.
  - Overseas specific – scenario involving shock which impacts overseas affiliates of the Bank / of Israeli banks and also has a low-level impact on operations in Israel.
  - Long combined – scenario reflecting a prolonged event. In this scenario, the stress level is lower than in main stress scenarios, but its impact is longer lasting, hence this scenario would impact a wider customer audience.

Scope and nature of reporting and measurement systems

Liquidity risk management system, used to calculate the overall liquidity, in Israeli currency and in foreign currency separately (including details in major currencies), including information about assets, liabilities and off-balance sheet liabilities of the Bank, compliance with limits specified by the Board of Directors and management, alerts with regard to trends in development of liquidity, the overall liability structure and in particular, liabilities to major depositors. The model results are displayed on a custom portal. The system is based on a daily database containing customer mapping, updated daily, from the Bank's data warehouse, and activity data obtained from the mainframe computer. The system includes controls to ensure data integrity and reliability. This information system is also used for reporting to the Bank of Israel, as stipulated by reporting directives 827 and 889 of the Supervisor of Banks and by the Public Reporting Directives.

Liquidity coverage ratio (LIQ1)

Below is information about liquidity coverage ratio[1] (NIS in millions):

	Three months ended December 31, 2022	
	Total unweighted value[2] (Average)	Total weighted value[3] (Average)
Total high quality liquid assets		
Total high quality liquid assets (HQLA)		**84,000**
Outgoing cash flows		
Retail deposits from individuals and from small businesses, of which:	170,307	10,832
Stable deposits	43,214	2,161
Less stable deposits	61,119	6,693
Deposits for term longer than 30 days	65,973	1,979
Non-secured wholesale financing, of which:	94,534	62,030
Deposits for operational needs (all counter parties) and deposits in chains of co-operative banking corporations	3,497	874
Deposits other than for operational needs (all counter parties)	90,954	61,072
Non-secured debts	84	84
Secured wholesale financing	–	266
Other liquidity requirements, of which:	155,051	63,853
Outgoing cash flows with respect to exposure to derivatives and other collateral requirements	55,678	55,678
Credit lines and liquidity	56,174	4,630
Other contractual financing obligations	–	–
Other contingent financing obligations	43,199	3,545
Total outgoing cash flows		**136,982**
Incoming cash flows		
Secured loans	2,396	398
Incoming cash flows from exposures repaid regularly	15,041	10,880
Other incoming cash flows	56,992	54,273
Total incoming cash flows		**65,551**
		Total adjusted value[4]
Total high quality liquid assets (HQLA)		**84,000**
Total outgoing cash flows, net		**71,431**
Liquidity coverage ratio (%)		**118**

(1) Information presented in terms of simple average of daily observations during the reported quarter. The number of observations used in calculating the averages in the fourth quarter of 2022 is 73.

(2) Un-weighted values are calculated as un-settled balances to be repaid or repayable by the holder within 30 days (for incoming and outgoing cash flows).

(3) Weighted values are calculated after applying appropriate safety factors or rates of incoming and outgoing cash flows (for incoming and outgoing cash flows).

(4) Adjusted values are calculated after applying: Safety factors and rates of incoming and outgoing cash flows, as well as other relevant limitations (i.e. limitation on high quality liquid assets and limitation on incoming cash flows, as set forth in Proper Conduct of Banking Business Directive 221).

Below is information about liquidity coverage ratio[1] (NIS in millions):

	Three months ended December 31, 2021	
	Total unweighted value[2] (Average)	**Total weighted value[3] (Average)**
Total high quality liquid assets		
Total high quality liquid assets (HQLA)		**88,141**
Outgoing cash flows		
Retail deposits from individuals and from small businesses, of which:	153,821	10,159
Stable deposits	43,357	2,168
Less stable deposits	60,520	6,493
Deposits for term longer than 30 days	49,944	1,498
Non-secured wholesale financing, of which:	94,072	60,532
Deposits for operational needs (all counter parties) and deposits in chains of co-operative banking corporations	3,657	914
Deposits other than for operational needs (all counter parties)	89,646	58,849
Non-secured debts	769	769
Secured wholesale financing	–	210
Other liquidity requirements, of which:	116,545	27,593
Outgoing cash flows with respect to exposure to derivatives and other collateral requirements	18,791	18,791
Credit lines and liquidity	61,900	5,707
Other contractual financing obligations	669	669
Other contingent financing obligations	35,185	2,426
Total outgoing cash flows		**98,494**
Incoming cash flows		
Secured loans	1,544	294
Incoming cash flows from exposures repaid regularly	13,603	10,174
Other incoming cash flows	23,156	17,485
Total incoming cash flows		**27,953**
		Total adjusted value[4]
Total high quality liquid assets (HQLA)		**88,141**
Total outgoing cash flows, net		**70,541**
Liquidity coverage ratio (%)		**125**

(1) Information presented in terms of simple average of daily observations during the reported quarter. The number of observations used in calculating the averages in the fourth quarter of 2021 is 79.

(2) Un-weighted values are calculated as un-settled balances to be repaid or repayable by the holder within 30 days (for incoming and outgoing cash flows).

(3) Weighted values are calculated after applying appropriate safety factors or rates of incoming and outgoing cash flows (for incoming and outgoing cash flows).

(4) Adjusted values are calculated after applying: Safety factors and rates of incoming and outgoing cash flows, as well as other relevant limitations (i.e. limitation on high quality liquid assets and limitation on incoming cash flows, as set forth in Proper Conduct of Banking Business Directive 221).

Key factors that impact results of the liquidity coverage ratio

The key factors that impact results of the liquidity coverage ratio are source composition and uses at the Bank. High quality liquid assets (HQLA) are assets at level 1, typically highly negotiable and carrying low risk, including: cash, current and deposit accounts with central banks, bonds of sovereigns with risk weighting of 0% and bonds of the State of Israel. Most of the outgoing cash flow is against non-secured wholesale financing – deposits deposited at the Bank by corporations and financial entities, as well as outgoing cash flows with respect to exposure to derivatives. Cash inflows primarily consist of credit receipts and inflows with respect to exposure to derivatives.

Typically, the ratio is mostly cyclical, and may be forecasted using internal estimates of the Bank. The key factor which affects over time the development of this ratio is growth of Bank operations, both in raising and managing the source structure and in increased uses. There is some volatility between days of the month, due to current activity of customers and interchangeability between NIS and foreign currency, primarily due to activity in NIS / foreign currency derivatives.

Composition of high quality liquid assets (HQLA)

Below is information about liquid assets by level, as required by Directive 221 (NIS in millions):

A regulatory limitation is in place for the Los Angeles branch, with regard to using the liquid reserve of this entity. Bank scenarios assume us of branch liquidity, considering the limitation.

	December 31		**Average for the fourth quarter**	
	2022	**2021**	**2022**	**2021**
Level 1 assets	85,100	89,128	83,940	88,020
Level 2a assets	45	158	45	121
Level 2b assets	15	–	15	–
Total HQLA	**85,160**	**89,286**	**84,000**	**88,141**

Developments in liquidity coverage ratio

In the fourth quarter of 2022, the Bank maintained appropriate liquidity by investing excess liquidity in liquid assets of very high quality – Level 1 assets. The average liquidity coverage ratio (consolidated) for the fourth quarter of 2022 was 118%. In this quarter, there were no recorded deviations from ratio restrictions.

Net stable funding ratio (LIQ2)

On June 21, 2021, the Supervisor of Banks issued Proper Conduct of Banking Business Directive 222 regarding "Net stable funding ratio (NSFR)", which stipulates calculation of the ratio as specified in the Basel III Reform of the Basel Committee (BCBS). The Directive became effective on December 31, 2021.

In conformity with this directive, the objective of the net stable funding ratio is to improve stability of the liquidity risk profile of banking corporations over the long term, by requiring banking corporations to maintain a stable funding profile in conformity with the composition of on-balance sheet assets and off-balance sheet operations. The ratio limits over-reliance by banking corporations on short-term wholesale funding. The net stable funding ratio consists of two components: available stable funding items and required stable funding items.

As required in the directive, the net stable funding ratio should be 100% or higher on regular basis.

In conformity with the directive, "Available stable funding" is defined as the part of capital and liabilities that may be relied upon over the time horizon taken into account in the net stable funding ratio, of one year. The required stable funding amount for a given corporation is based on the liquidity attributes and time to maturity of various assets held by the corporation, as well as of off-balance sheet exposures.

Below is information about the net stable funding ratio[1] (NIS in millions) as of December 31, 2022:

	A	B	C	D	E
		Non-weighted value by term to maturity			Weighted value
Available stable funding items (ASF)	No maturity [1]	Up to 6 Months	From 6 months Up to 1 year	12 months or longer	
Capital:	27,892	30	391	4,573	32,860
Supervisory capital	27,892	–	–	1,391	29,283
Other capital instruments	–	30	391	3182	3,577
Retail deposits from individuals and from small businesses	–	132,591	16,911	11,497	148,484
Stable deposits	–	46,204	2,507	1,751	48,027
Less stable deposits	–	86,387	14,404	9,745	100,458
Wholesale financing	–	151,772	19,748	43,683	91,465
Deposits for operational needs	–	3,586	–	–	1,793
Other wholesale financing	–	148,186	19,748	43,683	89,672
Liabilities with matching assets which are inter-dependent	–	–	–	–	–
Other liabilities:	190	6,021	4,062	2,765	4,796
Liabilities with respect to derivative instruments for net stable funding ratio	–			5,214	
All other liabilities and capital not included in the above categories	190	6,021	4,062	2,765	4,796
Total available stable funding (ASF)					277,605
Required stable funding items (RSF)					
Total high-quality liquid assets by net stable funding ratio (HQLA)					454
Deposits held at other financial institutions for operational purposes	–	–	–	–	–
Loans and securities in good standing:	–	83,149	23,492	217,377	224,899
Loans to financial institutions in good standing, secured by level 1 high-quality liquid assets	–	–	–	–	–
Loans to financial institutions in good standing, secured by high-quality liquid assets other than in level 1, and loans to financial institutions in good standing which are not secured	–	10,585	8,381	8,370	14,149
Loans to wholesale customers, other than financial institutions, which are in good standing, loans to retail customers and to small businesses and loans to sovereigns, to central banks and to public sector entities	–	63,662	6,140	27,032	57,322
Of which: With risk weighting of 35% or lower, pursuant to Proper Conduct of Banking Business Directive 203	–	3	4	49	35
Residential mortgages secured by mortgage in good standing, of which:	–	8,901	8,954	181,729	153,210
Of which: With risk weighting of 35% or lower, pursuant to Proper Conduct of Banking Business Directive 203	–	3,437	3,454	50,931	36,550
Securities not in default which do not qualify as high-quality liquid assets, including shares traded on the stock exchange	–	–	17	246	218
Assets with corresponding liabilities which are inter-dependent	–	–	–	–	–
Other assets:	2,357	1,434	1,384	6,314	12,368
Physically traded commodities, including gold	–				–
Assets deposited as primary collateral for derivative contracts and provided to default funds of central counter parties (CCPs)				1,008	1,008
Assets with respect to derivative instruments for net stable funding ratio				5,789	29
Liabilities with respect to derivative instruments for net stable funding ratio, before deduction of variable collateral deposited				–	–
All other asset categories not included in the above categories	2,357	1,434	1,384	6,314	11,332
Off-balance sheet items				94,854	4,164
Total required stable funding (RSF)					241,884
Net stable funding ratio (%)					115%

(1) Items reported under "No maturity" are items with no specified maturity.

Key factors that impact results of the net stable funding ratio

Net stable funding ratio on consolidated basis as of December 31, 2022 was 115%. Volatility of this ratio throughout the quarter was low; the main factors affecting the net stable funding ratio are: composition of Bank sources and uses by financing term, financing type and counter party. On the sources side – long-term liabilities are more stable than short-term liabilities, and funding from retail customers and small businesses is more stable than wholesale funding with the same maturity. When long-term sources grow shorter on a large scale (such as with subordinated notes) to a term shorter than one year, this factor affects the resulting ratio; however, because this is a funding source which typically has scattered maturities, the impact on the resulting ratio is not material. On the uses side – asset type, asset term and quality and liquidity value determine the required stable funding amount.

Pledged assets (ENC)

Proper Conduct of Banking Business Directive 336 concerning "Pledging assets of a banking corporation" stipulates a guiding principle to balance the need of running a business and the need of protecting rights of depositors in case of insolvency. The directive stipulates that a banking corporation may only pledge assets if required by law, regulation or relevant market requirements.

In conformity with Public Reporting Directives, pledged assets are assets which the Bank is limited in or precluded from liquidating, selling, transferring or assigning them due to legal, regulatory, contractual or other restrictions, and which are not included under "Assets used as collateral for a central bank".

Un-pledged assets are assets that do not meet the definition of pledge assets and are not included under "Assets used as collateral for a central bank".

Assets used as collateral for a central bank (central bank facilities) are assets used as collateral for transactions, or which may be used as collateral for transactions in any central bank facility, including those used for monetary policy, liquidity support or any other financing needs.

In conformity with Bank policy on pledging assets, the Bank's strategic business activity, which includes extensive financial activity, as well as flexible, efficient management of Bank liquidity, requires pledging some Bank assets in the course of such activity. Thus, for example, the Bank allows customers to trade on diverse markets (securities in Israel and overseas, interest and foreign currency derivatives) and offers an extensive range of products and services. This activity is also carried out through third parties and vis-à-vis clearinghouses, and sometimes requires assets to be pledged.

Below is the composition of pledged and un-pledged available assets (NIS in millions):

	As of December 31, 2022		
	Total balance on balance sheet	**Of which: Pledged**	**Of which: Non-pledged**
Cash and deposits with central banks	91,652	5,437	86,215
Bonds of the Government of Israel	10,732	294	10,438
Bonds of others in Israel	1,782	–	1,782
Bonds of overseas governments	1,457	364	1,093
Bonds of others overseas	521	–	521
Loans to the public, net	307,472	4,150	303,322
Total	413,616	10,245	403,371

	As of December 31, 2021		
	Total balance on balance sheet	**Of which: Pledged**	**Of which: Non-pledged**
Cash and deposits with central banks	93,689	1,244	92,445
Bonds of the Government of Israel	10,421	872	9,549
Bonds of others in Israel	1,372	–	1,372
Bonds of overseas governments	2,035	256	1,779
Bonds of others overseas	479	19	460
Loans to the public, net	271,428	6,606	264,822
Total	379,424	8,997	370,427

Additional information about liquidity risk and financing risk

Financing risk

Financing risk arises from shortage of financing sources or too high costs to raise sources. This risk is managed, as part of the liquidity risk, using Board and management restrictions on concentration of financing sources and through reduced dependence on material counter-parties.

The Bank's main financing sources are stable and diverse sources for different time horizons – retail and business deposits, long-term deposits from financial institutions and issues of bonds and obligatory notes. The Bank sees the great importance of diversification of its financing sources and acts proactively to identify sources for longer terms, including through a wide range of deposits offered by the Bank to its customers, deposits with unique attributes, which allow customers to benefit from relatively high interest over the long term with optional liquidity during the deposit term. In 2022, the Bank continued diversifying its financing sources and reducing concentration risk.

Furthermore, exposure to derivatives is regularly managed, in line with the exposure to each counter-party, counter-party collateral is immediately increased or collateral is immediately demanded from the counter-party.

Concentration of financing sources

The Bank has specified the major risk concentrations for handling source concentration / structure. Handling of risk concentrations is focused on different levels, regularly conducted by means of Board and management limits as well as risk indicators.

The Board of Directors and management limits and the various key risk indicators with regard to financing source concentration are monitored across a wide range of sub-categories: Size, customer type, individual depositor, number of customers, product, currency and average deposit term. A "comprehensive index" was defined, which averages all indicators related to concentration of financing sources. Current management of source composition includes setting policy on source diversification and financing terms as well as setting specific targets for risk benchmarks. Concentration is monitored daily and is regularly managed and reported.

The Board of Directors and management limits were specified as part of the Bank's overall risk appetite.

For more information about financing sources, see chapter "Developments in financing sources" in the Report by the Board of Directors and Management.

Operational Risk

Operating risk is material as it occurs across all areas of activity and in all Bank units. Operating risk may potentially impact earnings, revenues, capital and reputation of the Bank and is correlated with other risks, such as: market risk, credit risk, liquidity risk, reputation risk and other risks. Operating events sometimes occur which are not under control of the Bank, and may develop as a result of external events, some of which are unforeseen, with chances of occurring which cannot be estimated in advance, such as: natural disaster (earthquake, flooding), pandemic or security event. Therefore, efficient risk management is crucial for the Bank's risk management processes.

Operational risk is inherent in all products, activities, processes and systems at the Bank. With the developments in global markets and the higher complexity of financial activity and supporting technological infrastructure, an understanding has emerged, that Bank exposure to potential loss due to failures in regular operating activity may impact the business activity.

Operational risk is defined as the risk of loss due to inappropriateness or failure of internal processes, people and systems or due to external events. Operational events are classified under seven risk categories, in conformity with Basel principles: Embezzlement (Bank defrauded by its employees), external fraud (Bank defrauded by customer), work practices and safety of the work environment (loss due to actions not in line with labor laws or agreements), practices regarding customers, products and business (failure to meet obligations to customer), damage to physical assets, performance, distribution and process management and business disruptions and system failures.

The Bank manages and measures operational risk base on these categories as well.

Operational risk management – objectives and policies

The framework policy on operational risk management specifies the principles whereby the Bank manages operational risk, risk materiality, how it is managed, measurement and monitoring processes and actions taken by the Bank to mitigate such risk.

Policy principles were specified in line with Bank strategy with regulatory requirements (Proper Banking Conduct Directives of the Bank of Israel and relevant Basel Committee directives) and in line with globally accepted best practice.

The policy elaborates the corporate governance and the roles and responsibilities of the various lines of defense and stipulates the importance of deploying an appropriate culture for management of operational risks at the Bank and Group. Risk management at the Bank is carried out in conformity with Bank of Israel directives. Directive350 "Operational risks management" and Directive310 "Risk management", which specify the overall risk management framework, and the Basel document "Principles for management of operational risk" (dated October 2014), which specify the rules for proper management of operational risk.

The Bank framework for handling operating risk is reviewed quarterly, as part of the Bank's Risks Document. The risk profile is presented in this context, i.e. the actual loss level, in view of the risk appetite, the operational risk map and the most material events which occurred during the quarter are also presented and analyzed.

The Operational Risk Manager at the Bank is the Manager, Risks Control Division – who is also the Bank's CRO, responsible for proper implementation of the operational risk handling framework, acting through the Risks Control Division. The framework stipulated also includes the framework required for handling fraud and embezzlement risks, which are part of the operating risk categories according to Bank of Israel directives.

Bank policy determined the Bank's operational risk appetite in multiple qualitative and quantitative aspects, under normal business conditions and under stress scenarios. The risk appetite is specified in conformity with basic principles of the strategic plan, which specify the overall risk appetite of the Bank. The risk appetite was specified with respect to actual losses and potential losses, at the overall portfolio level and by risk category. The policy document was approved by Bank management and by the Board of Directors in 2022, as part of the approval process of all policy documents for risk management and control.

This risk is regularly monitored by review of failure events which caused loss, which are managed based on the different operational risk categories.

The Bank acts to dynamically measure and identify operational risk on two levels: Measuring loss due to failure events that actually materialized, and measuring potential risk identified by the operational risk survey process and in the risk map. Operational surveys are conducted for all Bank operations, in conformity with a three-year plan. The Bank implements a three-year plan for conducting operational risks surveys for all Bank operations, concluded at the end of 2022. This activity is an on-going process designed to generate a risk map, to increase the effectiveness of risk management and mitigation, while learning, re-assessing risk, including to due materialized events.

The Bank monitors and documents all operational failure events, including events for which a loss was incurred, as well as events with no loss or even events with a profit. Measurement of actual loss vs. the risk appetite in the normal course of business only includes loss events (without offset of profit events) and after accounting for any insurance coverage if actually realized.

The Bank conducts surveys to identify and map potential operational risks at various divisions, as a continuous process focused on mapping and assessment of material risks at each unit. The Bank has specified multiple key risk indicators (KRI) designed to identify potential risk prior to materialization. The survey results and action items (AI) are discussed, as part of self-assessment processes, by specific forums, attended by managers of the surveyed units and representatives from the Risks Control Division.

In addition to these surveys, the Bank also analyzes external events in Israel and overseas, which may provide information about potential circumstances and damage which may result in materialization of operating risk. Such analysis serves the Bank in implementation of appropriate steps for parallel processes within the Bank.

The Bank is acting to improve the effective handling of fraud and embezzlement risk. As part of this effort, the Bank is implementing a system using business laws to flag and identify unusual activity. Handling of fraud and embezzlement is in conformity with a specific operational risks management framework policy document and the policy document on management of embezzlement risk. The framework includes a combination of Bank entities: Internal Audit, Risks Controls, information security and cyber, human resources, Security Unit and the Technology Division.

Business model

The Bank actively handles operational risk in order to support operations of the business units, to improve major business processes associated with their operations and thus, to increase business value, rather than only reduce expected loss due to operational risk.

With the developments in global markets and the higher complexity of financial activity and supporting technological infrastructure, an understanding has emerged, that Bank exposure to potential loss due to failures in regular operating activity may impact the business activity. Operating failure events which occurred at financial institutions have increased legislator awareness and financial institutions' awareness of materiality of operating failure events, to the large potential for damage which may be caused by such operational risk event and to their main attributes, as follows:

- Operating events may occur in all areas of activity and in all Bank units.
- Operating risk may potentially impact earnings, revenues, capital and reputation of the Bank.
- Operational risk is correlated with other risks, including: market risk, credit risk, liquidity risk, reputation risk and other risks. Thus, for example, materialization of an operational risk event may cause reputation risk to materialize, after which the Bank may face a liquidity event.

- Some operating failures have very low probability of materialization, but relatively large damage potential.
- Operating risk has diverse instances, from human error, malfunction in technological systems, fraud, embezzlement, war, fire, robbery etc.
- Operating events sometimes occur which are not under control of the financial institution, and may develop as a result of external events, some of which are unforeseen, with chances of occurring which cannot be estimated in advance, such as: natural disaster (earthquake, flooding), plague and security event.

In 2022 there were no significant operating events.

Approach to operational risk policy and setting limits

The basic principles of the strategic plan specify the overall risk appetite of the Bank, include efficient branch deployment, business and technology innovation, hybrid banking management, operational efficiency targets, efficiency in capital and liquidity management, along with growth in commercial credit and continued leadership in the mortgage market, exposing the Bank to significant operational risk. Such risk requires active, forward-looking action to manage and to minimize the potential impact.

As noted, the Bank acts to measure and identify operational risk inherent in all products, activities, processes and material systems of the Bank, dynamically, on two levels:

- Measuring actual materialization of failure events.
- Risks assessment for damage potential with respect to failure events.

The activity on these two levels is a constant process designed to increase the effectiveness of risks management and mitigation, while learning, reassessing risks, including to due materialized events.

The Bank has a custom system for operational risks management (PSTL – Operational Risk Portal), used by the Bank to monitor and analyze failure events, risk surveys and generating the risk map, linking any actual materialized events to the risks map, regular monitoring of recommendations for implementation arising from surveys, failure events and lessons learned. And reports with regard to operational risk.

Fraud and embezzlement system – In 2020, the Bank started implementation and deployment of a new system for monitoring fraud and embezzlement. Alerts generated by this system are based on business rules specified for identifying events suspected of being fraud events (either external or internal).

The Bank reviews the capital held against operational risk under Pillar 1, calculated using the standard approach, vs. advanced Basel methodologies, in order to assess whether an additional capital allocation is required under Pillar 2, in the normal course of business. The Bank also applies a range of operational stress events, mapped in the Bank's operational risk map as events causing material damage to the Bank. Such potential loss is added to the internal capital allocation under Pillar 2, as part of the ICAAP process.

Organizational structure for operational risk management

The Bank has put in place an organizational structure and corporate governance for management of operational risks, which includes the Board of Directors, management and the three lines of defense. This structure is supported by dedicated committees and forums, created for management of operational risk.

The framework for handling operating risk is based on three lines of defense:

First line of defense: Includes all business and operational units at the Bank which are responsible for management of operational risk, and in particular, the Technology Division, which is the first line for management of cyber and information security risk, business continuity and IT, as well as Mizrahi Tefahot Security Services, which forms the first line for security and safety management.

Second line of defense: The Risks Control Division through the Risks Control Department, acting to implement the required activity for management and handling of operational risk across all Bank units, from a general view point and in conformity with policy principles, is responsible for constant monitoring of operational risk vs. the risk appetite and for handling risk in view of activities of the first line, using a range of processes, tools and methods. The unit is also responsible for the risk assessment process, jointly with the business units, and for conducting surveys and for revision of the operational risks map, management of the central IT system used by the Bank with regard to operational risk, used to collect failure events, conduct operational surveys and to monitor the recommendations for implementation arising from surveys, failure events and lessons learned.

Other units in the second line of defense, to handle and manage operational risk:

- The Technology Division, constituting th first line for management of cyber and information security, responsible for management of operational risk arising from failures in IT systems, including DRP management as part of the business continuity policy.
- The Training Department, of the Human Capital, Resources and Operations Division, acts to reinforce professional knowledge and to reduce operating failures arising from lack of knowledge and awareness.

- The Cyber and Information Security Department of the Risks Control Division, headed by the Bank's Information Security Officer. This Department works in tandem with cyber defense at the Technology Division, along with all Bank units.
- The Engineering Department of the Human Capital, Resources and Operations Division is responsible for overall business continuity management, i.e. Constant Bank readiness for business continuity in case of emergency.
- The Human Capital, Resources and Operations Division, responsible for handling continuous rotation and paid leave to minimize operational risk (and in particular, fraud and embezzlement risk).
- The Bank Security Unit, operating in the Human Capital, Resources and Operations Division, supports handling of operational risk at various Bank units.
- The SOX Unit, of the Financial Information and Reporting Division, is responsible for effectiveness of controls and procedures concerning disclosure and effectiveness of internal controls over financial reporting at the Bank.
- The Legal Division, responsible for implementation of the framework for handling legal risk.

Third line of defense: Internal Audit acts independently to conduct audits of operational risk management in order to ascertain the effectiveness of handling such risk, in accordance with the multi-annual work plan. The operational risk policies specifies the role of Internal Audit as the entity in charge of carrying out periodic audits of risk management processes, debriefing of fraud and embezzlement events, participation as observer on steering committees.

Below are key risk concentrations for operational risks:

Business continuity

The Bank applies Proper Conduct of Banking Business Directive 355 concerning "Management of business continuity".
The Bank is at a high state of readiness for business continuity in case of emergency. In the fourth quarter of 2022, the Bank operated in a normal state of readiness and continued to monitor morbidity, while maintaining all of its emergency formations. In the fourth quarter, the Bank continued to implement its work plan and exercise plan for 2022, including: Extensive exercise of the Bank of Israel Currency Department, under a scenario of a major cyber attack on Israel, which tested how the banking system addressed a nation-wide event which affected public trust in information received on the one hand, and increased demand for cash on the other hand.

As for Group-level control, in this quarter, too, the Bank continued to maintain constant contact with business continuity units of the Group and its overseas branches, including preparation for the work plan and exercise plan for 2023.

Information security and cyber defense

Information security risk is risk arising from faults in protection of the Bank's computer systems and information stored there. Cyber risk arises from an event including an attack on computer systems by or on behalf of internal or external adversaries of the Bank.

Directive 361 with regard to Cyber Defense Management provides guidelines for proper management of cyber risks, which require expansion and adjustment of the IT risks management framework with regard to the threat space perception and the required defensive capabilities. Accordingly, the Bank Board of Directors approved a comprehensive cyber defense strategy with reference to all required defensive components. Moreover, lines of defense for implementing it were specified. The Bank's cyber security is led by the Chief Information Security Officer, reporting directly to the Manager, Risks Control Division – responsible, inter alia, for setting policies on information security and cyber defense at the Bank, development of a cyber defense work plan. There are also several management-level forums that conduct quarterly monitoring of risk management and mitigation, as well as control over appropriateness of resources allocated to this area, in conformity with the risk assessment and changes to the technology environment at the Bank.

The relationships and information flow between these units have been specified in procedures, including reference to: Information security, physical security, IT governance, IT operations, risks management, fraud, human resource management, business continuity, customer relationship management, spokesperson operations and legal counsel.

Information security and cyber defense policies at the Bank are implemented, inter alia, by the Mizrahi Tefahot Technology Division Ltd. As part of this effort, the management concept applied includes guidelines for management of cyber security. Application of these guidelines and ensuring that they are current while incorporating them into strategic decisions and business and operational activity at the Bank – will ensure the consistency and integrity of the cyber security management concept over time.

The information security and cyber security policy is based on the following principles:
- Mapping and identifying cyber risks.
- Establishing an effective set of controls with cross-organizational integration of technology, human resources, processes and procedures.
- Specifying mechanisms to protect customer and business activities in the online domain, in conformity with Proper Banking Conduct Directive 367.
- Proactive cyber security implemented through mapping and knowledge of the environment, forecasting and study of threats, weighting of the current situation report, development of responsiveness processes, use of techniques for deception, diversion and delay, stability and recovery capacity, conducting processes of investigation, debriefing and execution of judgment.

- Implementation of multi-layer security in several circles and disciplines (both logical and physical), from the external system accessible to customers and through to internal systems, information and intelligence sharing.
- Using a system for monitoring, control and response for management of cyber events with integrated, corporate-wide view of components such as human resources, means of communications and procedures.
- Periodic and current reporting of risks management as a whole.
- Current analysis and assessment of cyber threats and exercising all those involved in handling cyber events.
- Development of stress scenarios related to information security and cyber.
- Improvement and enhanced controls among Bank suppliers, so as to reduce risk in the supply chain.

In addition, the Bank's On line Banking sector is certified under the information security management standard ISO 27001.

E-banking processes at the Bank include implementation of information security processes in conformity with Proper Conduct of Banking Business Directive 367, including authentication mechanisms, transmission of information to customers and identification of exceptional transactions.

In the fourth quarter of 2022, risk remained Medium. In this quarter, a small number of fraud attempts against customers (through phishing attacks) were identified, in which their account credentials were stolen in order to conduct un-authorized transactions in their accounts. Thanks to defensive measures applied by the Bank, despite these fraud attempts, there were no unauthorized transactions in customer accounts.

The Bank continues to reinforce the defense mechanisms applied in Bank systems, in order to further limit the ability to defraud customers and to conduct un-authorized transactions in customer accounts. These actions are part of the debrief and lesson learning processes in place at the Bank with regard to this evolving threat.

The Bank's information security team operates fully and continuously throughout the year, constantly improving and bolstering defense capabilities and mechanisms, in conformity with expansion of threats and challenging needs which the Bank is required to face.

Note that despite the increase in cyber risk world-wide and in Israel, due inter alia to increased use of cloud environments, increased remote working and more sophisticated attacks, primarily ransom attacks – the actions taken by the Bank in recent years have maintained risk at the Bank unchanged.

Supplier and outsourcing risk

The Bank works with a wide range of suppliers for various business needs. Using suppliers and outsourcing allows the Bank to achieve strategic targets, obtain expertise, expand the product range and improve service. Dependence on suppliers exposes the Bank to risks including the following: Operational, business continuity, information leakage, technology, compliance, legal, reputational and so forth. Such risk is regularly managed by risk management processes, procurement processes, business continuity and information and cyber security. The Bank has formulated and approved policy on supplier and outsourcing risk management, in conformity with Proper Conduct of Banking Business Directive 359A "Outsourcing".

IT risk

In recent years, the risks associated with IT management have increased, due to development and deployment of new technologies and evolution of new risk and threats. Other than under routine conditions, the IT management framework addresses system failures, such as: system faults and preparation for emergency situations. This is also intended to ensure that the Bank maintain business continuity during an alert or emergency. This may mitigate reputation risks and business risks which could arise under such conditions.

The Technology Division Manager is responsible for management of IT assets and the management framework is specified in a special policies document, in line with principles specified in policy documents on risks management and control at the Bank. The IT asset management policy is in line with requirements of the Supervisor of Banks and, in particular, with the principles stipulated in Proper Conduct of Banking Business Directive 357 "IT management"; Proper Conduct of Banking Business Directive 350 "Operational risk management"; Proper Conduct of Banking Business Directive 355 "Business continuity management" and Proper Conduct of Banking Business Directive 361 "Cyber security management".

Risk appetite is defined in quantitative and qualitative terms under normal and emergency scenarios, with the Bank's risk appetite in operational aspects for IT risk included under management of operational risk appetite. Risk appetite for technology aspects is defined by multiple benchmarks, including risk levels on the map of technology risk and specific risk appetite for diverse risk factors.

The Bank operates multiple measures to mitigate risk, including use of indicators (KRI) and support systems. Note that the SOC (Security Operation Center) operates 24/7 and is responsible for monitoring Bank infrastructure and systems, analyzing logs and identifying anomalies in real time, unusual behavior of users and systems in the network from information and cyber security aspects. The Bank also has a NOC (Network Operations Center), operating 24/7 as an operational unit for presenting the unified picture of enterprise infrastructure, capability for monitoring and forecasting faults, analyzing logs and identifying anomalies from technology risk aspects. In 2022, the Bank continued to reinforce its capacity to identify malfunctions in early stages, and expanded the use of bots to improve the effectiveness of system availability monitoring.

In 2019, the Bank started a project to replace its CRM system gradually, over several years. In March and August 2022, several milestones went live, along with further development of upcoming milestones.

In January 2023, the new payment / receipt server system went live, which is designed to provide a solution in this area for all Bank applications.

As part of bolstering its technology infrastructure, the Bank invests in technology systems, in order to address the evolving challenges in the business environment. The rapid pace of change in technology, changes to how services are made accessible to customers and expansion of the range of channels used by the Bank and its customers, require constant investment in technology. Investments are also made to upgrade the business capabilities and for compliance with new regulatory requirements, such as preparing for Open Banking. The Bank is also developing advanced tools for handling data and extracting information from data, in order to improve its measuring capacity and decision making, both from business marketing aspects and from risk management aspects.

Legal risk

Proper Conduct of Banking Business Directive 350 concerning "Operational risks" defines legal risk as including absence of potential for legal enforcement of an agreement and "including, but not being limited to exposure to fines or penalties arising from supervisory action, as well as from individual arrangements". Legal risk also includes risks arising from legal exposure due to Bank conduct with its various stakeholders (such as: customers, suppliers and other third parties).

Legal risk includes risks arising from legislative and regulatory provisions, rulings by judiciary or quasi-judiciary authorities as well as legal risks arising from regular Bank operations. The Chief Legal Counsel for the Bank has been appointed Chief Legal Risks Manager. The Bank constantly strives to minimize as much as possible the legal risks associated with its current operations, and acts to disseminate a practical culture leading to identification and mitigation of legal risk in all its different aspects.

The Bank's Legal Division regularly analyzes the legal risk components, the risk boundaries (arising, for example, from the counter-party identity, from creation of collateral etc.) as well as specific risk attributes while reviewing its risk level and exposure with attention to the different lines of business at the Bank and provides current legal advice to the Bank and its various units.

The Bank's Legal Division applies internal processes to ensure regular monitoring of developments in legislation, rulings and other regulatory provisions which could have implications for the day-to-day activities of the Bank Group. In this context, the Legal Division provides guidance to relevant Bank entities with regard to implementation of the implications arising from these developments. The Legal Division provides regular counsel to different Bank units, including to some subsidiaries. This is done, *inter alia*, by providing opinions, editing and updating legal documents, support for updates to procedures etc.

The Bank has specified procedures to help in minimizing legal risk, including regulating the interface between the Legal Division and different Bank departments. The Legal Division is also involved in training delivered to branches and headquarters units, at the Bank's Training Center and in compiling professional eLearning kits for imparting the legal knowledge required for regular Bank operations.

Similar reference is made for Bank affiliates overseas (branches and subsidiaries), with these affiliates receiving assistance from local external attorneys approved by the Bank's Legal Division. The Bank's overseas subsidiaries and affiliates have adopted similar procedures with regard to management of legal risk, and provide immediate and quarterly reports to the Legal Risk Manager of the Bank with regard to any legal risks identified in these entities.

In 2022, legal risk remained Low-medium.

For more information about assessment of the current impact of legal risk, see table "General mapping of risk factors and their impact" above.

Scope and key features of risks measurement system

In general, it is Bank policy to manage and to monitor risks using controlled, computer-based systems with minimal dependence on manual processes and with near-real time update frequency.

The Bank has many measurement systems used to estimate all material risks to which the Bank is exposed, as well as IT systems to support risks monitoring and reporting, as stated below:

- A custom system for operational risks management (PSTL – Operational Risk Portal), used by the Bank to collect, monitor and analyze failure events, risks surveys and to generate a risk maps, linking any actual materialized events to the risk map, regular monitoring of recommendations for implementation arising from surveys, failure events, lessons learned and reports with regard to operational risk.
- System for monitoring fraud and embezzlement risk – The system provides alerts concerning suspect activity, based on definition of business rules.
- Information security center (SOC) system – systems that continuously monitor the Bank's computer environments, including all components thereof, to identify suspect events that require individual scrutiny.
- Permission management and control system – a computer system for management and control of permissions and credentials in various systems. The system applies computer-based processes for management of employee permissions in the various systems, based on their role and the employee life cycle. The system allows for application of time-based controls with regard to changes made to employee permissions in these systems.

Reports to management and to the Board of Directors

Bank policy specifies the channels for management and reporting of operational risk, designed to ensure proper risk management for all products, activities, processes and material systems of the Bank. To this end, the Bank operates forums at all levels, tasked with handling operating risk:

- Management committee for operational risks – this committee serves as management's key managerial tool for management and monitoring of operational risks at the Bank. The Committee is part of the management committee for risks management.
- Operating Risk Steering Committee – serves as an advisory committee to the Chief Risks Officer with regard to operating risk management. The committee includes relevant representatives from business units, from control and audit units and an observer from the audit unit.
- Operational risks monitoring forums – Dedicated forums headed by the Chief Risks Officer, with each of the relevant Bank divisions. These forums are intended to discuss internal control aspects, in particular aspects arising from the operating risk management framework, including results of risk assessment surveys, material events and results of debriefs.

For management of this risk at Bank units, operational risk trustees were appointed, most of whom operate in the first line of defense, are responsible for handling operational risk and IT risk at their unit. The trustees report any operational risk event that took place at their unit, using a special system – the Operational Risks Portal (PASTEL). This system is used by the Bank for analysis and reporting of operational risk by: Trustee reports are disseminated to a pre-specified list of managers at the Bank and each event is assigned a severity level, in addition to the event description. There are over 200 operational risk trustees working at the Bank, most of them at Bank branches. They are in regular contact with the Operational Risk Department of the Risks Control Division.

Operating risk mitigation

Due to the significance of operating risk, the Bank takes different steps to mitigate this risk. The most important step is to instill a corporate culture which promotes strong awareness of operating risk, and of deployment of risk-mitigating processes. The operational risk trustees, across the Bank, are the long arm of the Operational Risk Owner in this process.

The Bank conducts special training sessions for these trustees including, inter alia, specific training with regard to debriefing and the lesson learning process.

Changes to existing business processes and/or new processes with potential for materialization of operational risk undergo a structured process of approval by business entities and by control entities, prior to launch, using a checklist – and are sent for approval by the Steering Committee. This mechanism is used to review all aspects of the change, ensuring a professional review of the root risk and how to mitigate it.

One of the tools used by the Bank for risk mitigation is debriefing and lesson learning flowing internal and/or external events. The conclusions formed in this process are incorporated into work processes, systems, training content and procedures.

The Bank has established policies and operating plans for case of emergency, for backup, recovery and business continuity in case of physical damage to Bank infrastructure. This plan, supported by emergency procedures and pre-appointed officers, is exercised annually and the conclusions from such exercises is incorporated into the action plan.

Mitigating operational risk through insurance – the Bank is insured under a banking insurance policies, against damage which may be incurred in the course of normal operations, as a result of human error, fraud, embezzlement etc. The Bank acquires an officers' insurance policies, which applies to all officers at the Bank and at the different Bank Group companies, which provides insurance coverage for personal claims which may be filed against officers with respect to their actions in the course of their position with Group companies. Obtaining such an officer liability insurance policy is subject to approval by the General Meeting of Bank shareholders.

The Bank has obtained specific insurance policies for property damage and liability, which provide insurance coverage of Bank property and liability. The Bank also has insurance coverage under a custom cyber insurance policy, an additional layer over the banking insurance policy, which adds coverage related to computer-based crimes to the banking insurance policy. The Bank has a specific policies document which governs insurance aspects related to Bank operations.

Capital allocation

The Bank allocates capital with respect to operating risk using the standard approach. According to this approach, Bank revenues were categorized into eight lines of business, as stipulated by the Bank of Israel, with a standard risk weighting assigned to each line of business, reflecting its sensitivity to loss with respect to operational risk. Segmentation and treatment of the required capital allocation is incorporated in a specific policies document which governs the aspects required for capital allocation using the standard approach and, in particular, specifies the lines of business in Bank operations. Risk weightings range from 12% for retail banking to 18% for corporate financing. Bank operations are mostly in the retail segment, so that most of the operational risk assets are with respect to this line of business; the Bank's overall average risk weighting is 12.5%.

Other risks

Compliance and regulatory risk

Bank business operations are subject to regulation. Compliance risk is the risk of imposition sanctions, material financial loss or damage to reputation, which the Bank may incur due to its failure to comply with compliance provisions.

The Bank is acting in conformity with Proper Conduct of Banking Business Directive308, which includes the obligations for compliance risk management to all compliance directives, including laws, rules and regulations (including positions stated by the Supervisor of Banks in conjunction with handling public inquiries), internal procedures and the Code of Ethics which apply to banking operations at the Bank.

Compliance provisions also include the following laws: ISA Enforcement Proceeding Streamlining Law (Legislative Amendments), 2011; Securities Law 1968; Mutual Investment Law, 1994; Arrangement of Engagement in Investment Consultancy, Investment Marketing and Management of Portfolios Law, 1995 (hereinafter: "the Advisory Law"); hereinafter jointly – "securities laws" as well as the Economic Competition Law, 1988. Compliance with these laws is also handled by internal enforcement programs of securities laws and economic competition laws, respectively.

Compliance risk includes, *inter alia*, the issue of fairness, privacy protection laws, AML and terror financing and cross-border risk, as elaborated below.

The Bank has minimal risk appetite for compliance and regulatory risk, with regard to compliance with statutory provisions applicable to the Bank. Therefore, the Bank has determined that any deficiencies found in compliance with statutory provisions should be addressed by Bank units as a top priority. The Bank has specified a multi-annual work plan, which includes required action for reducing compliance risk.

The Bank also operates in conformity with sanction lists (including sector-specific sanctions) issued by the USA, the EU and the UK and applies these sanctions. This was even more important in the past year, as the Russia-Ukraine war continued.

The compliance and regulatory Risk Manager for the Bank is the Manager, Risks Control Division, the CRO. The Compliance Officer is responsible for continuous management of this risk.

First line of defense – Includes the business units, in charge of identification, assessment, mitigation and control of compliance risk in processes and systems for which they are responsible.

Second line of defense – The Manager, Risks Control Division and CRO of the Bank serves as the person in charge of enforcement of securities law and economic competition law. The Bank has a Compliance Officer, reporting to the CRO. Their role is to assist the Bank's Board of Directors and Bank management in effectively managing compliance risk. The Compliance Department is responsible for deployment of an organizational culture of compliance with procedures and with the Law and fair dealing with customers across all Bank departments, for identification of potential conduct risk, through implementation of risk-based controls over the relevant departments and through analysis of findings provided by other departments.

Third line of defense – Internal Audit, which conducts independent audit of the first line of defense and of the Compliance Function, including review of the appropriateness and effectiveness of the Compliance Function, and review of compliance aspects in branch operations and in processes audited thereby.

The Bank maintains effective enforcement programs for securities law and for economic competition law, adapted for the Bank and its unique circumstances, as part of overall risks management at the Bank. This is designed to ensure compliance with securities law and economic competition law and to avoid violation thereof.

The Compliance Department maps compliance risks in various areas, including fairness risk, and takes action in order to reduce them and carries out training to deploy the compliance policy across the Bank. In order to ensure compliance with all statutory provisions, as noted above, the Compliance Officer maintains a control system in line with control plans.

The compliance risk is assessed using a methodology which reflects the likelihood of materialization of a breach event, the expected damage in case of breach, while taking into account the existing risk mitigators, such as: quality of work processes and procedures, compliance culture, control quality and so forth. The Bank manages and monitors quarterly changes in quantitative / qualitative benchmarks relevant for compliance risks management.

Computer-based tools are used in implementing compliance programs. Computer-based controls, including rules for monitoring activity, exception reports etc. are applied to Bank databases and are regularly developed in line with the work plan.

In 2022, the Bank's overall compliance risk remained unchanged at Low-Medium.

Cross-border risk

Cross-border risk is the risk of financial loss (including due to legal proceedings, fines or sanctions imposed by statutory authorities or others in Israel and in other countries) and of impact to reputation, arising from the Bank's failure to comply with statutory provisions originating in other countries – whether provisions binding on the Bank or provisions which are not binding, but failure to comply with them may cause the Bank to incur damage, or from overseas activities of Bank customers in contravention of any statutory provisions.

Cross-border risk includes, inter alia, risk of damage, including impact to reputation, due to lawsuits or other enforcement proceedings brought by authorities in other countries, with regard to foreign tax laws applicable to certain Bank customers, AML and terror financing laws, sanctions imposed by international bodies and foreign authorities or other laws. Cross-border risk also applies to the Bank's overseas affiliates.

Cross-border risk includes the risk arising from obligations arising from US tax laws applicable to Bank Group operations outside of the USA (the Foreign Account Tax Compliance Act – "FATCA" and Qualified Intermediary – "QI"). This risk is also due to obligations stipulated by the Common Reporting Standard (CRS) issued by the OECD.

The Bank has zero appetite for cross-border risk. Therefore, the Bank has specified that any faults discovered with regard to cross-border risk would be addressed by Bank units as a top priority.

The cross-border Risk Manager for the Bank is the Manager, Risks Control Division, the CRO. The Compliance Officer is responsible for continuous management of this risk.

Cross-border risk is managed by three lines of defense:

First line of defense – Includes the Retail Division, the Corporate Division and the Finance Division, which are responsible for monitoring and reducing cross-border risk in their activity with relevant customers, international operations, which is responsible for overseas Bank affiliates through local compliance units at each affiliate.

Second line of defense – the Compliance Department under the Risks Control Division, which is responsible for deploying an organization-wide compliance culture with procedures and laws, for identification and assessment of cross-border risk, for delivering appropriate training and for specifying procedures. To this end, the Compliance Department is assisted by the Legal Division, the Human Capital, Resources and Operations Division which supports the implementation of processes and IT systems and the Technology Division, which develops computer-based tools for risk identification, monitoring and mitigation.

Third line of defense – Internal Audit, which conducts periodic audit of the management of cross-border risk.

The Bank applies the statutory provisions for implementation of FATCA and CRS, and provides timely reports to the Israeli Tax Authority/ The Bank is compliant with terms and conditions of the QI agreement with the IRS. International entities, including OFAC (of the US Department of Treasury) and the European Union have imposed international sanctions on countries, organizations and individuals. As part of management of its international financial operations and maintaining proper business relations with correspondent banks, the Bank is compliant with these sanctions, even though they do not apply directly to the Bank. As part of management of cross-border risk, the Bank especially monitors and reviews any monetary transactions where any party to such transaction is located in a country / entity subject to international sanctions.

The Bank continues to maintain processes designed to improve the quality of risk management *inter alia*, by revising procedures, automating work processes, delivering training, activity of foreign residents in specialized branches and specification of work routines in processes required tor reporting under both FATCA and CRS. The Bank also monitors regulatory updates from relevant countries for the Bank and its affiliates, once every quarter, to verify their relevance for Bank operations and to implement them if applicable.

AML and terror financing risk

AML and terror financing risk is the risk of financial loss (including due to legal proceedings, penalties or sanctions imposed by authorities in Israel and in other countries) and impact to reputation, which the Bank may incur due to breach of various statutory provisions regarding the Bank's obligations with regard to AML and terror financing. The Bank applies on a Group basis, with required changes, its policies in this area as well as statutory provisions, at its subsidiaries and branches in Israel and overseas.

The Bank regards itself as a partner in the international AML and terror financing effort and takes part in the international effort against bribery and corruption, acting to identify, monitor and follow up on activities and customers that may be exposed to bribery and corruption. The Bank also avoids any activities opposed to the international sanctions regime of states and international bodies such as OFAC (of the US Department of Treasury) and of the European Union.

The Bank applies a risk-based approach to account opening and management, allocating resources in conformity with the risk level of the account and activity, reflected *inter alia* by enhanced controls and appropriate custom training.

The Bank has near-zero risk appetite with regard to AML risk.

The AML and Terror Financing Risk Manager for the Bank is the Manager, Risks Control Division.

AML and terror financing risk is managed by three lines of defense:

First line of defense – consists of branches and business units that apply immediate controls to their operations.

Second line of defense – the Compliance Department of the Risks Control Division, which is responsible for applying appropriate controls, for deployment of relevant statutory provisions and for delivering training designed to improve knowledge on this subject.

Third line of defense – Internal Audit, which conducts independent audit of the first line of defense and of the Compliance Function, including review of the appropriateness and effectiveness of the Compliance Function, including review of controls in line with estimated risk level.

The Bank applies statutory provisions and regularly provides ordinary and extraordinary reports to the AML Authority. To this end, the Bank operates *inter alia* a computer system to identify extraordinary transactions and to monitor the processing of such reports.

The Compliance Department manages and monitors quarterly changes in relevant qualitative and quantitative benchmarks relevant for compliance risk management, and applies various controls to activity in various accounts, based on the risk profile thereof, concurrently with verification and improvement of data quality. The Department also provides ongoing advice to branches and business units, as well as delivering training customized for different Bank employees based on their role.

In addition, as part of bribery and corruption risk management, the Bank acts to identify customers that may be exposed to giving, receiving or brokering bribes, both during account opening and in the course of normal business operations.

The Compliance Department provides a semi-annual report to the Bank of Israel about exposure to compliance risk, in conformity with Reporting Regulation 825. Quarterly reports to Bank management and annual reports to the Board of Directors with regard to implementation of the policy and reference to all risks and exposures at the Bank with regard to compliance. Furthermore, in special cases with implications for AML or terror financing, the Compliance Officer immediately reports to the CRO, to the Bank President & CEO and to the Supervisor of Banks, as the case may be.

In view of the increase in business activity and further increased regulatory activity reflected, *inter alia*, in frequent publication of new directives, for which the Bank is preparing accordingly, intensive training and deployment activity continued, along with risk-focused controls, improvement of documents and classifications, and taking effective action to avoid recurrence of unusual events and compliance failures.

Scope and key features of risks measurement system

In general, it is Bank policy to manage and to monitor risks using controlled, computer-based systems with minimal dependence on manual processes and with near-real time update frequency.
The Bank has many measurement systems used to estimate all material risks to which the Bank is exposed, as well as IT systems to support risks monitoring and reporting, as stated below:

- Permission management and control system – a computer system for management and control of permissions and credentials in various systems. The system applies computer-based processes for management of employee permissions in the various systems, based on their role and the employee life cycle. The system allows for application of time-based controls with regard to changes made to employee permissions in these systems. AML and terror financing risk
- Compliance risk management system – this system is used for risk management, control management, task monitoring and for management and monitoring of decisions and processes. The system allows for dynamic specification, execution and monitoring of processes and displays a current overview of work processes for each stage, in real time, as well as the Bank's compliance risks map.
- The AML system (MEA) is used to monitor unusual activity which gives rise to concern with regard to AML. including attempts to avoid identification for FATCA/CRS purposes and avoiding reporting to the relevant tax authorities, as well as terror financing. This system addresses the monitoring of transactions, review, debrief, transfer to the Compliance Department and, if needed, completing the processes by referring the case to the AML Authority. Reports generated by the system are in conformity with the AML Authority's new reporting directives (pattern-based reporting). The system has been deployed at all Bank branches and is used on regular basis, by bankers at these branches, by branch managers, by the AML Department and under the supervision, control, with regular assistance and calibration.

Reputational risk

The Bank has mapped reputation risk as a material risk, because past events indicate that impact to the reputation of a financial institution may result in significant loss of value. Reputation risk is a stand-alone risk, but may also arise from materialization of other risks at the Bank, such as materialization of an operating risk event. Furthermore, impact to Bank reputation may bring about the materialization of other risks, in particular liquidity risk – with growing demand by customers to withdraw deposits.
The Bank has defined its risk appetite for reputation risk as minimal. In recent years, the Bank took action to put in place a framework for handling reputation risk. The Bank considers that this risk should be addressed based on similar principles to those used to address other risks, such as credit risk or market risk – even though this risk is considered harder to quantify. Therefore, similarly to other risks, the Bank’s Board of Directors has created a dedicated policy document for addressing reputation risk, which specifies guidelines for risk management, risk appetite, risk measurement and ways to mitigate risk. Accordingly, the Bank incorporated reputation risk into its regular risks management processes, including the process for approval of new products or activities and in self-assessment processes conducted by the Bank and has put in place a framework for regular measurement of this risk. The Bank emphasizes creation of a reporting chain and the required activity under stress conditions, in order to mitigate the impact of such risk, should it materialize. This activity requires identification of risk materialization at its early stages, in order to allow for qualitative and quantitative tools to be applied as early as possible, in order to address this risk. The policy refers to all Bank subsidiaries and stipulates mandatory reporting and the required actions in case of an event classified as a reputation event. The Bank regularly coordinates with Bank Yahav on this matter.
The Reputation Risk Manager is the Manager, Marketing, Promotion and Business Development Division at the Bank.
Reputation risk is managed in conformity with the policy on three levels: In advance (under normal conditions), in real time (alert condition) and in retrospect.
Bank policy also defines the roles of the Risk manager and stipulates how the risk should be addressed under normal conditions and in case of a stress event. The Risk Manager heads the Reputation Risk Committee, which regularly convenes quarterly and as needed, in case of concern about materialization of a stress event. The Committee routinely discusses the outcome of continuous monitoring of this risk which is conducted, *inter alia*, based on internal and external information sources, through surveys and studies, online discourse, media review and reports by other Risks Managers at the Bank. The work process under stress conditions, i.e. in case of an event which may impact reputation, is incorporated in a specific reporting and action procedure. The objective of this procedure is to define how information is located, the reporting chain, including declaration of a reputation event, how to act during the event and how to declare the event ended, including debriefing and other assessment to review the impact of the event on Bank image, once the event has ended. The Bank has also specified, as part of its business continuity plan, the creation of a media command post, headed by the Risk Manager, which would allow the Bank to handle reputation risk in case of emergency.
The Bank routinely measures its reputation risk in the capital market, in the public and among customers and the business community. This measurement is based on specific quarterly studies which review public opinion (Bank customers and those of other banks), on monthly monitoring of on line discourse, on satisfaction surveys among Bank customers etc. Reports with regard to reputational risk are sent to Bank management and to the Board of Directors in the quarterly Risks Document – as is the case for all risks mapped by the Bank.

Business-strategic risk

Business-strategic risk is the risk, in real time or potentially in future, of impact to Bank profits, capital or reputation, due to erroneous business decisions, improper deployment of decisions or insufficient preparation for changes in the business environment. This means the risk that the Bank chose the wrong strategy or that the Bank would not be able to implement the business and strategic plan as planned. The materiality of business-strategic risk requires the Bank to take measures which would allow it to manage this risk and take steps for assessment and early identification of events which may preclude implementation of the strategy.

On April 26, 2021, the Bank's Board of Directors approved a strategic 5-year plan for 2021-2025, based on the following:

- Position the Bank as a key player in business banking, based on supporting action including: set up operations for investments in non-banking corporations, lead large and complex transactions and expand the Bank's international operations at its branches in London and in the USA in areas focused on business banking;
- Establish leadership position of the Bank Group among households: Maintain the leadership position in the mortgage market while introducing innovations in products and processes, and increasing synergies with commercial operations, expand operations among target populations and set up a desk for unique consumer credit products;
- Provide personal, human banking services supported by advanced digital technology, including optimal combination of human and digital channels, with human service by expert bankers, including in digital, in accordance with customer choice and needs, as well as offering personalized value propositions across all channels, which are customized for customer needs.
- Adapt the operational model to future challenges and improve operational efficiency, including through relocating Bank headquarters to the central campus in Lod, adapt the branch structure to future challenges, optimize real estate, automate bank operations and streamline the work environment.
- Leverage the Union Bank merger to create operational and business synergy and to realize economies of scale.

The strategic plan is designed to achieve the following targets:

- Achieve in 2025, net profit return on equity attributable to equity holders of 14% on average equity, as well as double-digit, growing and stable return over the term of the strategic plan; these rates are based on the ratio of Tier I equity to risk components for the Bank at the minimum set by the Supervisor of Banks plus appropriate margin;
- Growth in bank operations to result in increased market share of the Bank in the Israeli banking system;
- Grow revenues at an annual average rate of 8% (although non-linear), while controlling the average annual expenses at a 5% growth rate (also non-linear) over the term of the new strategic plan;
- Maintain high operating efficiency and leverage economies of scale due to the Union Bank merger, to achieve a cost-income ratio lower than 50% in 2025.
- Under the new strategic plan, the Board of Directors shall monitor execution of the plan, in order to consider potential increase of the dividend rate, from 40% of net profit attributable to Bank shareholders, up to 50% of net profit, upon conclusion of the Union Bank merger process; This would be subject to Bank compliance with the ratio of Tier I capital to risk components, as required by the Supervisor of Banks, maintaining appropriate margins and subject to approval by the Supervisor of Banks.

The Bank is acting in conformity with five-year strategic plan for 2021-2025. Bank results in 2022 indicate that the Bank has surpassed the objectives set in the strategic plan.

The Business-Strategic Risk Owner is the President & CEO; based on his guidance, management periodically reviews the implementation of the strategy: Monitoring of developments of external factors which may affect the Bank's strategic risk, including regulatory, economic or technology developments which affect the strategy and initiating annual work plans derived from and in conformity with the strategic plan. In addition, the Financial Information and Reporting Division and the Risks Control Division regularly and independently monitor business-strategic risk from different control aspects, primarily the following: achievement of targets, risk mapping and identification, stress testing, threat tests and continuous monitoring of the risk profile in view of the Bank's risk appetite. In addition to continuous monitoring of the implementation of work plans and aligning them with the strategic outline, the Bank also monitors developments of external factors which may impact the Bank's business-strategic risk. The work plans of Bank divisions are adapted, when needed, to the changing business environment in order to achieve business targets and the strategic outline. The Bank is prepared for emergencies so as to reduce the impact to the Bank's business and strategic plan, should extreme economic or geo-political conditions evolve.

As noted above, developments in the business environment which may impact strategic risk include increased local and global geo-political tension, its impact on local and global economic activity, effect of inflation and higher interest rates, which raised the cost of borrowing, technological developments in the world of finance and changes to consumer preferences, the impact of regulatory provisions in core areas of banking operations. The Bank is prepared for emergencies so as to reduce the impact to the Bank's business and strategic plan, should extreme economic or geo-political conditions evolve.

In recent months there has been uncertainty in view of Government plans to promote changes to the judicial system and the public disagreement with regard to this move. At this stage it is too early to assess the developments and impact of these events on Israel's economy.

Regulatory risk – In 2022, proposed anti-banking legislation proliferated, as did new Proper Conduct of Banking Business directives and updates to existing ones, which may impact the Bank's core operating segments.

This information constitutes forward-looking information, as defined in the Securities Law, 1968, based on assumptions, facts and data (hereinafter jointly: "assumptions") brought before the Bank's Board of Directors. These assumptions may not materialize due to factors which are under the Bank's control.

Environmental risk and climate risk

Environmental risk – This is risk due to potential impact of environmental changes on financial institutions. The Bank is exposed to potential loss due to deterioration in the borrower's financial position due to high costs incurred as a result of environmental hazard and regulation concerning environmental protection, or due to impairment of collateral exposed to environmental risk or to the Bank being indirectly liable for an environmental hazard caused by a project funded by the Bank. Environmental risk also includes other, derived risks: reputation risk, third-party liability risk and so forth.

Climate risk is risk due to increased frequency and intensity of weather events due to global warming. The Bank faces risk of financial loss or impact to its reputation, due to materialization of physical events or processes or adjustment to transition risk due to climate change.

Climate risk includes transition risk, which is regarded as long-term risk. Such risk is due to the accommodation process to a low-carbon economy (such as transition to renewable energy sources, carbon taxation, improved energy efficiency and so forth), as well as physical risk that may materialize due to direct impact of extreme events, such as fire, flooding and so forth, and due to prolonged, chronic change that may result from higher sea levels and higher temperatures that may affect the ecological system, desertification processes and so forth.

The Group incorporates ESG aspects in its business strategy, maintains regular communication with all stake holders and manages diverse risks arising from its operations from environments, social and corporate governance aspects. In 2022, the Group formulated policy on identification, management and control of ESG risk at the Bank.

The Board of Directors supervises ESG issues through Board committees or by the Board of Directors Planum, including: Climate change, environmental and social risks in lending and investments, handling customer complaints, financial inclusion and so forth. The Board of Directors and the Risks Management Committee discuss the Bank's ESG risks as part of the quarterly Risks Document. Moreover, the Risks Management Committee and the Board of Directors receive the environmental risks and climate risks report and discuss ESG risks semi-annually.

In 2021, the Bank established a steering committee, headed by the Manager, Human Capital, Resources and Operations Division and composed of different division managers, designed to lead policy, activity, control and reporting as part of promoting ESG across all Bank operations, for optimal management of identified ESG risks.

The Bank recognizes its impact on the environment and on society, and is committed to acting to reduce the impact of its activities on climate change from credit, investments and Bank operational aspects. The Bank leads major projects to promote a green environment. The Bank provides loans for development of new technologies for generating energy, solar energy generating facilities, projects in public transportation, renewable energy and so forth. The Bank also assists several projects that promote reduction of greenhouse gas emissions to maintain cleaner air.

As from the financial statements with respect to the fourth quarter of 2020, the Bank includes environmental risk, and in particular climate risk, on the list of emerging risks. At this stage it is too early to assess the potential long-term impact of climate change on the Bank.

In 2023, the Bank intends to further develop its capabilities with regard to climate risk, with due notice to developments in global and local banking regulation and developments in the economic and environmental arena in Israel and elsewhere.

For objectives and strategies with regard to environment and climate, see "Environmental risks" on the Report by the Board of Directors and Management.

Remuneration

On July 6, 2021, the General Meeting of Bank shareholders approved, further to approval of the Bank's new strategic plan, after approval by the Board of Directors and recommendation by the Remuneration Committee, the revised officer remuneration policy at the Bank (hereinafter: "revised officer remuneration policy"), effective for three (3) years through December 31, 2023. The revised remuneration policy is in conformity with the Corporate Law, 1999, the Remuneration of Officers in Financial Corporations Law (Special Permission and Non-allowance of Expenses for Tax Purposes with Respect to Excessive Remuneration), 2016 ("the Executive Remuneration Law") and Proper Conduct of Banking Business Directive 301A "Remuneration".

In July 2021, the Bank's Board of Directors approved, after receiving the recommendation from the Remuneration Committee, a revised remuneration policy for 3 years through December 31, 2023 for all Bank employees, other than officers who are subject to the revised remuneration policy for Bank officers, as noted above.

Name, composition and authority of entity supervising remuneration

The Board of Directors' Remuneration Committee is the entity which supervises remuneration. This Committee consists of 4 Board members. All Board members serving on the Committee are external Board members, and all external Board members are members of the Remuneration Committee (in conformity with the Companies Law and with Proper Conduct of Banking Business Directive 301 "Board of Directors").

The Remuneration Committee formulates recommendations for the Board of Directors on remuneration policy for officers and other Bank employees. Moreover, the Remuneration Committee confirms the contracting terms of the Bank with its senior officers, including with regard to their remuneration (including officer liability insurance, indemnification and waiver), as well as the individual targets to be specified by the Bank President & CEO and their assessments on this matter (and of the Chairman of the Board of Directors and recommendation of the Audit Committee with regard to the Internal Auditor, respectively).

External consulting with regard to remuneration processes

For approval of the revised remuneration policy, the Remuneration Committee was assisted by various advisors. legal advice and advice on impact of remuneration on corporate governance.

Remuneration policy scope

In conformity with the revised officer remuneration policy, the Remuneration Committee and the Board of Directors approved an officer remuneration plan.

Based on the remuneration principles specified by the Remuneration Committee and adopted by the Board of Directors, as reflected in the revised officer remuneration policy – the Remuneration Committee recommended and the Board of Directors approved in July 2021 a remuneration policy for all Bank employees other than officers ("the remuneration policy for all Bank employees").

The remuneration policy for all Bank employees applies Group-wide; it also applies to overseas affiliates of the Bank, to Bank subsidiaries other than Bank Yahav – whose remuneration policy has been communicated to the Bank.

Employees considered senior officers and other key employees

The revised officer remuneration policy distinguishes between business officers and gatekeepers, for whom an "additional fixed component" was specified, *inter alia* – which is not contingent on performance – and individual performance benchmarks were specified – which are independent of the business which they supervise.

The remuneration policy for all Bank employees specifies remuneration terms of all key employees at the Bank, those of senior managers and other managers at the Bank and of other Bank employees for 2021-2023.

The group of key employees at the Bank, other than officers, consists in 2021 of 36 managers, of which 18 managers in subsidiaries (other than Bank Yahav).

Planning and structure of remuneration policy; key attributes and objectives of remuneration policy

The objective of the revised officer remuneration policy and of the remuneration policy for all Bank employees, is to ensure that remuneration of Bank employees, including key employees, would be consistent with the Bank's risks management framework, with its long-term objectives, with the Bank's strategic plan and its control environment, as well as with actual employee performance over the short, medium and long terms. Accordingly, the goals underlying the remuneration policy were: create an incentive structure for Bank employees which maintains a proper balance between fixed and variable remuneration components and which promotes effective, well established risk management which does not encourage risk taking beyond the Bank's risk appetite and allows the Bank to maintain a solid capital base; align remuneration incentives payable to Bank employees with the Bank's strategic plan, with long-term objectives of the Bank, with the Bank's results over time and with actual contribution of Bank employees to achieving such Bank objectives; alignment of Bank contracting with Bank employees other than officers, in order to create balanced conditions which do not jeopardize the robustness and stability of the Bank, as well as preserving senior Bank employees and ensuring, in as much as possible, the Bank's capacity to recruit high-quality managers in future, allowing for organization-wide considerations such as cost of remuneration and

desired remuneration gaps between various ranks of Bank employees, as well as the competitiveness in the banking sector, the Bank's size, scope of operations and nature of its business.

Remuneration components of Bank employees include fixed and variable remuneration, as customary at the Bank, as well as any other benefit, payment or commitment to make a payment, provided with respect to their employment at the Bank.

The great majority of Bank executives, including key employees, are employed by individual employment contract. As for officers, their terms of office and employment include waiver and indemnification and officer liability insurance, as customary at the Bank.

Remuneration of employees involved with risk and compliance is not dependent on the business results of the business areas whose operations they monitor, audit or supervise. Terms of office and employment of the Chief Compliance Officer are brought for approval by the Board of Directors, after a[[rpva; by the Remuneration Committee, as stipulated by Proper Conduct of Banking Business Directive 301A. Furthermore, variable remuneration of managers in charge of the trading room, back office staff and staff involved in risk control, is not dependent on operating results of the trading room and is not derived from remuneration of trading room staff.

Risks

Annual remuneration processes and Key Performance Indicators (KPI) of senior managers at the Bank, which are challenged by the Bank's Chief Risks Officer, include reference to issues related to risk management, with emphasis on compliance risk and mitigation measures for such risk within the manager's scope of activity.

Link between performance and remuneration; long-term performance; variable remuneration

Variable remuneration for key employees and other managers includes a monetary bonus and long-term equity-based remuneration. Variable remuneration is designed to align the interests of managers and key employees with those of the Bank and to reinforce the link between the Bank's overall performance and the key employee's contribution to achievement of such performance, and the key employee's remuneration – with consideration to the Bank's risk profile.

Variable remuneration is objective-dependent and performance-dependent and as such, encourages the senior executives, including the key employees, to generate economic value and to promote the Bank's medium-term and long-term objectives, while maintaining the Bank's risks management framework and risk appetite. Therefore, performance-based remuneration payable to key employees is contingent on Bank performance in the medium and long terms, considering the Bank's strategic plan – but would not encourage taking risks beyond the Bank's risk appetite and would maintain a proper balance between fixed and variable remuneration components.

Equity-based remuneration is typically awarded by way of options, as described in the outline of offering to employees, as approved by the Board of Directors on July 26, 2021, after approval by the Remuneration Committee. As well as a capped monetary bonus, such that the total value of variable remuneration would not exceed 85% of the key employee's total fixed remuneration, except under special conditions, where the maximum variable remuneration may not exceed 170% of the fixed remuneration. The Bank’s Board of Directors also stipulated that the maximum variable remuneration for officers who are gatekeepers would not exceed 55% of fixed remuneration and that such officers would be eligible for a retention bonus equal to two months' salary, which constitutes fixed remuneration pursuant to the remuneration policy.

Key employees' eligibility for variable remuneration is contingent on fulfillment of all threshold conditions specified in the officer remuneration policy, in line with the officer remuneration policy, i.e.: on the Bank's total capital adequacy ratio and Tier I equity adequacy ratio, in conformity with the Bank's annual financial statements for that year, would not be lower than the minimum ratios stipulated by Bank of Israel directives and under special circumstances, should the rate of return be lower than the minimum stipulated or to be stipulated in Bank of Israel directives, but the second pre-requisite has been fulfilled, a special bonus of up to two monthly salaries may be awarded.

Eligibility of key employees and other senior executives to a monetary bonus is based on quantitative, company-wide criteria identical to those applicable for officers: return on equity, return on Bank shares relative to benchmark, operating efficiency ratio and average ratio of core deposits. In addition, eligibility of senior managers, including key employees for a monetary bonus is based on qualitative criteria, consisting of individual performance benchmarks (specified annually, based on performance targets according to the work plan for each year) and which include objectives related to risks management and compliance and objectives with regard to risks handled thereby, depending on their occupation, as well as evaluation by their supervisors. In addition, a threshold was specified for the evaluation criteria, below which the key employee would not be eligible for any annual monetary bonus. The individual performance benchmarks specified for managers, related to risk control and compliance, are related to development and implementation of risks monitoring mechanisms and to development and implementation of effective alerts to deviation from the definitions specified by Bank management and Board of Directors, as well as supervision and control of implementation of required statutory provisions, as the case may be. Individual performance benchmarks specified for managers involved in audits are related to the scope and quality of audits performed under their supervision with reference to coverage of major risk factors in their field, implementation of a clear professional policy in support of Bank objectives and deployment of high professional standards. These performance benchmarks are not contingent on performance of Bank business lines and units which they supervise or audit, as the case may be.

Eligibility of key employees for options, for each annual lot, would be determined based on the four company-wide benchmarks, as described above (with respect to officers other than the Bank President & CEO or the Chairman of the Board of Directors). In conformity with the revised officer remuneration policy, eligibility of officers to receive options would be determined based on company-wide benchmarks, with a weighting of up to 43% for gatekeepers, and up to 55% for other officers, as well as on individual performance targets, with a weighting of up to 57% for gatekeepers and up to 45% for other officers.

The Bank has specified steps ("minimum achievement", "target achievement", "maximum achievement"), the achievement of which would confer eligibility to receive variable remuneration at different rates.

In conformity with the remuneration policy, a key employee must reimburse, including by way of offset, any variable remuneration paid them – if paid based on data which turned out to be erroneous and were restated on the Bank's (consolidated) financial statements within three years following the end of the year for which the variable remuneration was paid, but no later than three years after termination of their employment by the Bank.

Furthermore, the remuneration policy stipulates – and option offerees have committed accordingly – that no private hedging arrangements may be entered into which would eliminate the effect of risk-sensitivity inherent in their remuneration.

For officers not employed by individual employment contract and for all other Bank employees – the monetary bonus consists of a general bonus and individual bonus, based on their department and with due consideration to objectives for revenues, risk management, compliance, compliance with regulatory requirements and internal audit findings, public complaints, service quality to customers, individual contribution of the employee and the supervisor's opinion.

The terms of office or employment of Bank employees include fixed and variable remuneration, as customary at the Bank, as well as retirement terms and any other benefit, payment or commitment to make a payment, provided with respect to the aforementioned office or employment.

Below are details of remuneration paid (NIS in millions):

		2022	
		Senior Officers	Other key employees
Fixed remuneration	Employee headcount	14	37
	Total fixed remuneration	26	38
	Of which: Cash-based	26	38
	Of which: Deferred	-	-
	Of which: Shares or other share-based instruments	-	-
	Of which: Deferred	-	-
	Of which: Other forms	-	-
	Of which: Deferred	-	-
Variable remuneration	Employee headcount	13	37
	Total variable remuneration	13	22
	Of which: Cash-based	7	14
	Of which: Deferred	1	3
	Of which: Shares or other share-based instruments	6	8
	Of which: Deferred	6	8
	Of which: Other forms	-	-
	Of which: Deferred	-	-
Total remuneration		39	60

		2021	
		Senior Officers	Other key employees
Fixed remuneration	Employee headcount	14	36
	Total fixed remuneration	25	34
	Of which: Cash-based	25	34
	Of which: Deferred	–	–
	Of which: Shares or other share-based instruments	–	–
	Of which: Deferred	–	–
	Of which: Other forms	–	–
	Of which: Deferred	–	–
Variable remuneration	Employee headcount	12	36
	Total variable remuneration	12	18
	Of which: Cash-based	6	11
	Of which: Deferred	–	2
	Of which: Shares or other share-based instruments	6	7
	Of which: Deferred	6	7
	Of which: Other forms	–	–
	Of which: Deferred	–	–
Total remuneration		**37**	**52**

Below is information about special payments (NIS in millions):

Special payments	Guaranteed bonuses		Signing bonuses		Severance pay	
	Number of employees	Total remuneration	Number of employees	Total remuneration	Number of employees	Total remuneration
	2022					
Senior Officers	–	–	–	–	–	–
Other key employees	–	–	–	–	–	–
	2021					
Senior Officers	–	–	–	–	–	–
Other key employees	–	–	–	–	–	–

Below is information about deferred remuneration (NIS in millions):

Deferred remuneration and retained remuneration	Total unpaid amount of deferred remuneration balance	Of which: Total outstanding remuneration payable that is held and subject to retroactive adjustments, explicit or implicit	Total amount of revision made during the year due to explicit retroactive adjustments	Total amount of revision made during the year due to implicit retroactive adjustments	Total deferred remuneration paid out in the reported year
	2022				
Senior Officers					
Cash	1	1	-	-	-
Share-based	15	15	-	-	3
Cash-based instruments	-	-	-	-	-
Other	1	1	-	-	-
Other key employees					
Cash	6	6	-	-	-
Share-based	17	17	-	-	4
Cash-based instruments	-	-	-	-	-
Other	1	1	-	-	-
Total	**41**	**41**	**-**	**-**	**8**
	2021				
Senior Officers					
Cash	1	1	–	–	–
Share-based	14	14	–	–	6
Cash-based instruments	–	–	–	–	–
Other	2	2	–	–	–
Other key employees					
Cash	4	4	–	–	–
Share-based	12	12	–	–	6
Cash-based instruments	–	–	–	–	–
Other	2	2	–	–	–
Total	**35**	**35**	–	–	**12**

Addendum A – Links between financial statements and supervisory exposures

Differences between accounting consolidation basis and supervisory consolidation basis, and mapping of financial statements by supervisory risk categories (NIS in millions):

	As of December 31, 2022					
		On-balance sheet balances of items:				
	On-balance sheet balances as reported on published financial statements[1]	Subject to credit risk framework	Subject to counter-party credit risk framework	Subject to securitization framework	Subject to market risk framework[2]	Not subject to capital requirements, or subject to deduction from capital base
Assets						
Cash and deposits with banks	93,673	96,036	–	–	–	(2,312)
Securities	15,144	12,180	–	–	2,964	–
Securities borrowed or purchased in resale agreements	315	315	–	–	–	–
Loans to the public	310,356	308,558	1,917	–	–	(119)
Provision for credit losses	(2,884)	(300)	–	–	–	(2,580)
Loans to the public, net	307,472	308,258	1,917	–	–	(2,699)
Loans to Governments	318	328	–	–	–	(10)
Investments in associated companies	127	127	–	–	–	–
Buildings and equipment	1,503	1,503	–	–	–	–
Intangible assets and goodwill	178	–	–	–	–	178
Assets with respect to derivatives	5,789	–	5,789	–	7,631	–
Other assets	3,773	3,405	–	–	–	181
Total assets	428,292	422,152	7,706	–	10,595	(4,662)
Liabilities						
Deposits from the public	344,514	–	–	–	–	344,514
Deposits from banks	6,994	–	–	–	–	7,045
Deposits from the Government	47	–	–	–	–	47
Securities loaned or sold in re-purchase agreements	–	–	–	–	–	–
Bonds and subordinated notes	33,287	–	–	–	–	33,287
Liabilities with respect to derivatives	5,214	–	5,214	–	7,461	–
Other liabilities	13,368	–	–	–	–	13,184
Total liabilities	403,424	–	5,214	–	7,461	398,077

Differences between accounting consolidation basis and supervisory consolidation basis, and mapping of financial statements by supervisory risk categories (NIS in millions):

	As of December 31, 2021					
		On-balance sheet balances of items:				
	On-balance sheet balances as reported on published financial statements[1]	Subject to credit risk framework	Subject to counter-party credit risk framework	Subject to securitization framework	Subject to market risk framework[2]	Not subject to capital requirements, or subject to deduction from capital base
Assets						
Cash and deposits with banks	95,267	95,268	–	–	–	(1)
Securities	15,033	14,463	–	–	570	–
Securities borrowed or purchased in resale agreements	1,332	1,332	–	–	–	–
Loans to the public	273,531	271,955	1,576	–	–	–
Provision for credit losses	(2,103)	(313)	–	–	–	(1,790)
Loans to the public, net	271,428	271,642	1,576	–	–	(1,790)
Loans to Governments	477	477	–	–	–	–
Investments in associated companies	69	69	–	–	–	–
Buildings and equipment	1,734	1,734	–	–	–	–
Intangible assets and goodwill	208	–	–	–	–	208
Assets with respect to derivatives	3,652	–	3,652	–	3,123	–
Other assets	3,071	3,035	–	–	–	36
Total assets	392,271	388,020	5,228	–	3,693	(1,547)
Liabilities						
Deposits from the public	307,924	–	–	–	–	307,924
Deposits from banks	6,992	–	–	–	–	6,992
Deposits from the Government	81	–	–	–	–	81
Securities loaned or sold in re-purchase agreements	–	–	–	–	–	–
Bonds and subordinated notes	38,046	–	–	–	–	38,046
Liabilities with respect to derivatives	3,753	–	3,753	–	3,302	–
Other liabilities	13,746	–	–	–	–	13,746
Total liabilities	370,542	–	3,753	–	3,302	366,789

Link between the balance sheet and supervisory capital components (NIS in millions):

	Consolidated supervisory balance sheet	
	As of December 31	
	2022	2021
	NIS in millions	
Assets		
Cash and deposits with banks	93,673	95,267
Securities	15,144	15,033
Of which: Investments in equity of financial corporations, not exceeding 10% of share capital of each financial corporation	–	–
Of which: Investments in equity of financial corporations, exceeding 10% of share capital of each financial corporation, not exceeding the deduction threshold	–	–
Of which: Other securities	15,144	15,033
Securities borrowed or purchased in resale agreements	315	1,332
Loans to the public	310,356	273,531
Provision for credit losses	(2,884)	(2,103)
Of which: Group provision for credit losses included in Tier II	(2,580)	(1,790)
Of which: Provision for credit losses not included in regulatory capital	(304)	(313)
Loans to the public, net	307,472	271,428
Loans to Governments	318	477
Investments in associated companies	127	69
Of which: Investments in equity of financial corporations, exceeding 10% of share capital of each financial corporation, not exceeding the deduction threshold	3	3
Of which: Investments in other associated companies	124	66
Buildings and equipment	1,503	1,734
Intangible assets and goodwill	178	208
Of which: Goodwill	87	87
Of which: Other intangible assets	91	121
Assets with respect to derivatives	5,789	3,652
Other assets	3,773	3,071
Of which: Deferred tax assets	2,007	1,759
Of which: Deferred tax assets, other than those arising from temporary differences	–	6
Of which: Deferred tax liability with respect to intangible assets	–	–
Of which: Other deferred tax assets	2,007	1,753
Of which: Excess deposit over provision	–	–
Of which: Other additional assets	1,766	1,312
Total assets	428,292	392,271

	Consolidated supervisory balance sheet	
	As of December 31	
	2022	2021
	NIS in millions	
Liabilities and Equity		
Deposits from the public	344,514	307,924
Deposits from banks	6,994	6,992
Deposits from the Government	47	81
Securities loaned or sold in re-purchase agreements	–	–
Bonds and subordinated notes	33,287	38,046
Of which: Subordinated notes not recognized as regulatory capital	470	4,740
Of which: Subordinated notes recognized as regulatory capital	5,437	5,933
Of which: Qualifying as supervisory capital components	5,437	5,486
Of which: Not qualifying as regulatory capital components and subject to transitional provisions	–	447
Liabilities with respect to derivatives	5,214	3,753
Of which: With respect to internal credit risk	6	5
Other liabilities	13,368	13,746
Of which: Deferred tax liability arising from retirement	–	–
Total liabilities	403,424	370,542
Equity attributable to shareholders of the banking corporation	23,780	20,770
Of which: Supervisory capital	23,797	20,803
Of which: Ordinary share capital	3,519	3,497
Of which: Surpluses	20,676	17,500
Of which: Cumulative other comprehensive loss	(497)	(270)
Of which: Losses with respect to adjustments with respect to employee benefits	(38)	(355)
Of which: Unrealized gains from adjustment to fair value of available-for-sale securities	(457)	98
Of which: Net losses from cash flow hedges	–	(12)
Of which: Net losses from translation adjustments of financial statements	(2)	(2)
Of which: Capital reserves	99	76
Of which: Preferred share capital	–	–
Of which: Qualifying as supervisory capital components	–	–
Of which: Not qualifying as regulatory capital components and subject to transitional provisions	–	–
Of which: Other equity instruments	–	–
Of which: Qualifying as supervisory capital components	–	–
Of which: Not qualifying as regulatory capital components and subject to transitional provisions	–	–
Non-controlling interests	1,088	959
Of which: Non-controlling interests attributable to Tier I shareholders' equity	542	447
Of which: Non-controlling interest attributable to additional Tier I capital	–	–
Of which: Non-controlling interests attributable to Tier II capital	–	–
Of which: Non-controlling interests not attributable to regulatory capital	546	512
Total shareholders' equity	24,868	21,729
Total liabilities and equity	428,292	392,271

Key sources for differences between supervisory exposure amounts and carrying amounts on the financial statements (NIS in millions):

	As of December 31, 2022				
		Items subject to:			
	Total	Credit risk framework	Counter-party credit risk framework	Securitization framework	Market risk framework
Carrying amount of assets according to supervisory consolidation basis	428,292	417,490	7,706	–	2,964
Carrying amount of liabilities according to supervisory consolidation basis	403,424	–	5,214	–	–
Total net amount according to supervisory consolidation basis	24,868	417,490	2,492	–	2,964
Off-balance sheet amounts	98,930	29,358	–	–	–
Differences due to no effect of fair value of derivatives with credit balance	–	–	–	–	–
Differences due to variance in calculating the fair value of negotiable derivatives for capital requirements	290	–	290	–	–
Differences caused by potential future exposure	3,534	–	3,534	–	–
Differences caused by differences in offset rules	3,183	–	3,183	–	–
Differences arising from variable cash collateral in derivatives operations	–	–	–	–	–
Differences caused by securities provided as collateral	–	–	–	–	–
Differences due to balances not subject to capital requirements or subject to deduction from capital base	4,657	4,662	–	–	–
Amounts with respect to market exposures	3,134	–	–	–	3,134
Other differences	41	–	41	–	–
Exposure amounts taken into account for supervisory purposes	542,062	451,510	14,755	–	6,098

	As of December 31, 2021				
		Items subject to:			
	Total	Credit risk framework	Counter-party credit risk framework	Securitization framework	Market risk framework
Carrying amount of assets according to supervisory consolidation basis	392,271	386,473	5,228	–	570
Carrying amount of liabilities according to supervisory consolidation basis	370,542	–	3,753	–	–
Total net amount according to supervisory consolidation basis	21,729	386,473	1,475	–	570
Off-balance sheet amounts	105,760	29,729	–	–	–
Differences due to no effect of fair value of derivatives with credit balance	–	–	–	–	–
Differences due to variance in calculating the fair value of negotiable derivatives for capital requirements	290	–	290	–	–
Differences caused by potential future exposure	1,677	–	1,677	–	–
Differences caused by differences in offset rules	(1,727)	–	(1,727)	–	–
Differences arising from variable cash collateral in derivatives operations	(1,638)	–	(1,638)	–	–
Differences caused by securities provided as collateral	597	597	–	–	–
Differences due to balances not subject to capital requirements or subject to deduction from capital base	1,547	1,547	–	–	–
Amounts with respect to market exposures	391	–	–	–	391
Other differences	1,044	(499)	1,543	–	–
Exposure amounts taken into account for supervisory purposes	500,212	417,847	5,373	–	961

(1) Reclassified, so that under Total Exposures, data is presented before credit conversion factors.

Glossary and index of terms included on the risks report

Below is a summary of terms included on the Risks Report:

Terms with regard to risk management and capital adequacy at the Bank

B	**Back testing** – A process for assessment of appropriateness of model results, which includes a comparison of model forecasts and actual results. **Basel – Basel II / Basel III** – A framework for assessment of capital adequacy and risk management, published by the Basel Committee on Bank Supervision.
C	**Counter-party credit risk** – The risk that the other party to a transaction would be in default before final settlement of cash flows in the transaction. **CRM – Credit risk mitigation** – Methods for reducing credit risks, such as: Insuring credit exposure through a guarantee or a deposit. **CVA – Credit Valuation Adjustment risk – CVA** is the component of the fair value of a derivative, which accounts for the credit risk of the counter-party to the transaction. CVA risk is the risk of loss from revaluation to market value due to expected counter-party risk for over-the-counter (OTC) derivatives. This means loss due to impairment of fair value of derivatives, due to increase in counter-party credit risk (such as: lowered rating).
E	**EVE – Economic Value of Equity** – The economic value approach to analysis and estimation of the effect of changes in interest rates on the fair value of assets, liabilities and off-balance sheet positions of the Bank. **Expected Shortfall VAR** – A model which estimates the average loss for the VAR model, beyond the confidence level specified in the VAR model.
H	**High Quality Liquid Assets (HQLA)** – high-quality liquid assets which can be quickly and easily converted into cash, with a small loss of value or with no such loss under a stress scenario.
I	**ICAAP – Internal Capital Adequacy Assessment Process** by the Bank. The process includes, *inter alia*, setting capital targets, capital planning processes and review of the status of capital under diverse stress scenarios. This process is part of Pillar 2 of the Basel directive.
K	**KPI – Key Performance Indicators** – used as a tool to formulate insights about the status of process execution across the Bank.
L	**Loan To Value Ratio (LTV)** – The ratio between the approved facility when extended and the asset value.
M	**Minimum capital ratio** – The ratio represents the minimum supervisory capital ratios which the Bank is required to maintain, pursuant to requirements set forth in Proper Conduct of Banking Business Directive 201.
P	**Pillar 2** – The second pillar of the Basel II document, referring to the supervisory review process. This part consists of the following underlying principles: The Bank shall conduct an ICAAP process, as defined above. The banking supervision shall conduct a process to assess the bank's capital adequacy assessment process, to review the bank's capacity to monitor and comply with supervisory capital ratios. The bank is expected to operate above the minimum capital ratios specified. **Pillar 3** – The third pillar of the Basel II document, designed to promote market discipline by developing a set of disclosure requirements that would allow market participants to assess the capital, risk exposure and risk assessment processes, and accordingly – to assess the bank's capital adequacy.
R	**Risk assets** – These consist of credit risk, operational risk and market risk, calculated using the standard approach as stated in Proper Conduct of Banking Business Directives 201-211. **Risks document** – A document which concisely presents the Bank's risk profile, in order to allow the Board of Directors to monitor action taken by management and to ensure that such action is in line with the risk appetite and with the risks management framework approved by the Board of Directors. The risks document is reported and presented to the Board of Directors quarterly.
S	**Standard approach** – An approach used to calculate the required capital with respect to credit risk, market risk or operational risk. The capital allocation is calculated by a formula based on supervisory assessment components, as specified by the Supervisor of Banks. **Stress tests** – Term covering multiple methods designed to assess the financial standing of a banking corporation under a stress scenario. **Stressed VAR** – Estimate of the Value at Risk (VAR) based on historical data which describe a relevant crisis period. **Subordinated obligatory notes** – Obligatory notes whose rights are subordinated to claims by other Bank creditors, except for other obligatory notes of the same type. **Supervisory capital (total capital)** – Supervisory capital consists of two tiers: Tier I capital, which includes Tier I equity and additional Tier I capital. Tier II equity: As defined in Proper Conduct of Banking Business Directive 202 "Capital measurement and adequacy – Supervisory capital".
V	**VAR –** A model used to estimate total exposure to diverse market risks. The VAR (Value at Risk) obtained by the model is a statistical estimate of the maximum expected loss for the Bank due to materialization of market risks factors in a given time period at a pre-determined statistical confidence level.

Terms with regard to banking and finance

A	**Average duration** – Average duration of bonds. Measured in years, by weighting principal and interest payments for the bond over time, through final maturity. The average duration of bonds reflects sensitivity of the financial instrument to changes in interest rates. Average duration is calculated as the ratio of weighted average payments to price of the bond.
B	**Bonds** – Securities which are issuer obligations to pay to bond holders the issued principal and interest upon set dates or upon fulfillment of certain conditions.
C	**Credit underwriting** – A process which includes analysis and assessment of credit risk inherent in a transaction and approval of such transaction in conformity with policy and procedures, in order to extend credit.
D	**Debt under re-structuring** – Problematic debt under re-structuring is defined as debt for which, for economic or legal reasons related to financial difficulties of the debtor, the Bank has made a concession by way of modification to terms of the debt, designed to ease the burden on the debtor of cash payments in the near term (reduction or deferral of cash payments due from the debtor), or by way of receiving other assets as debt repayment (in whole or in part). **Debt under special supervision** – Debt under special supervision is debt with potential weaknesses that require special attention from Bank management. If such weaknesses are not addressed, the likelihood of debt repayment may deteriorate. **Derivatives** – A financial instrument or contract whose value changes in response to changes in the price of the underlying asset (a financial instrument, physical asset, index, credit rating or other underlying asset), requires a small or minimal initial investment, compared to other contract types, and is expected to be settled on a future date.
I	**Impaired debt** – Debt is classified as impaired debt when payment of principal or interest with respect to such debt is in arrears 90 days or loner, unless the debt is well secured and is in a collection process. Furthermore, any debt whose terms and conditions have been modified in re-structuring of problematic debt shall be classified as impaired debt, unless prior to and following such re-structuring, a provision for credit losses by extent of arrears has been made for such debt, in conformity with appendix to Proper Conduct of Banking Business Directive 314 regarding problematic debt in residential mortgages. Problematic debt – Debt classified under one of the following negative classifications: special supervision, inferior or impaired. **Indebtedness** – On- and off-balance sheet credit, as defined in Proper Conduct of Banking Business Directive 313. **Inferior debt** – Inferior debt is debt insufficiently secured by collateral or by debtor repayment capacity, and for which the Bank may incur a loss if faults are not corrected, including debt over NIS 700 thousand which is 60-89 days in arrears. **ISDA** – An agreement which covers transactions in derivatives between banks and allows for aggregation and offset into a single amount of net obligations of either party to all transactions together, upon occurrence of a bankruptcy event or another event which qualifies for transaction closing, according to the agreement.
O	**Off-balance sheet credit** – Contracting for providing credit and guarantees (excluding derivative instruments).
R	**Recorded debt balance** – The debt balance, including recognized accrued interest, un-amortized premium or discount, net deferred commissions or net deferred costs charged to the debt balance and not yet amortized, net of any debt amount subject to accounting write-off. Financial instrument – A contract that creates a financial asset for one entity and a financial liability or capital instrument for another entity.
S	**Syndication** – Loan extended jointly by a group of lenders.

Terms with regard to regulatory directives

F	**FATCA – Foreign Accounts Tax Compliance Act** – The US Foreign Accounts Tax Compliance Act (FATCA) stipulates mandatory reporting to the US tax authority (IRS) of accounts held by US persons with foreign financial institutions (outside the USA).
L	**LCR – Liquidity Coverage Ratio** – Defined as the ratio of High Quality Liquid Assets and net cash outflow for the next 30 days, under a stress scenario. This ratio is a measure of the Bank's capacity to meet its liquidity needs for the coming month.

Other terms

S	**SOX** – US legislation, partially adopted by the Bank of Israel, designed to regulate responsibilities and internal controls over financial reporting and disclosure at the organization.

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