Mizrahi-Tefahot

2018 Risks Management Report

This translation of the financial statement is for convenience purposes only.
The only binding version of the financial statement is the Hebrew version.

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:

www.mizrahi-tefahot.co.il >> about the bank >> investor relations >> financial statements.

Main Table of Contents

List of tables included on the Risks Report

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, 2018. The financial statements and additional information to the financial statements, including the Report of the Board of Directors and Management, this Risks Management Report and other supervisory disclosures have been approved for publication by the Bank's Board of Directors at its meeting held on March 27, 2019.

The Risks Report and other supervisory disclosures are compiled in conformity with directives of the Supervisor of Banks, which include disclosure requirements of Basel Pillar 3, disclosure requirements published by the Financial Stability Forum (FSF) and other disclosure requirements of the Financial Stability Board (FSB).

The disclosure in this report is designated to allow users to evaluate significant information included with regard to implementation of the framework for capital measurement and adequacy and to implementation of provisions of "Basel III: A global regulatory framework for more resilient banks and banking systems".

All of these reports are also available on the Bank's website:

www.mizrahi-tefahot.co.il >> about the bank >> investor relations >> financial statements.

As directed by the Supervisor of Banks, additional information with regard to risks is provided in the Report of the Board of Directors and Management, in the following chapters:

– Chapter "Overview, targets and strategy" / major risks
– Chapter "Explanation and analysis of results and business standing" / risk events and key emerging risks
– Chapter "Risks Overview"

In conformity with the Equal Rights to Handicapped Persons Regulations (Service Accessibility Adaptations), 2013, the website also provides accessible reports.

Disclosure policy on the report

It is the Bank's disclosure policy in this Risks Report to disclose to stakeholders any relevant information that is material for understanding the significant risks to which the Bank is exposed, including:

- Matters with material impact on the risks setup at the Bank.
- Material changes between reported periods.
- Matters subject to reporting pursuant to directives of the Supervisor of Banks.
- Material changes to application of the risks management policy.

Moshe Vidman	**Eldad Fresher**	**Doron Klauzner**
Chairman of the Board of Directors	President & CEO	Vice-president, Chief Risks Officer (CRO)

Approval date of the financial statements and the Risks Report:
Ramat Gan, March 27, 2019

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 provided in the forward-looking information due to multiple factors including, inter alia, changes in local and global capital markets, macro-economic changes, geo-political changes, changes in legislation and regulation and other changes outside the Bank's control, which may result in non-materialization of estimates and/or in changes to business plans.

Forward-looking information is characterized by the use of certain words or phrases, such as: "we believe", "expected", "forecasted", "estimating", "intending", "planning", "readying", "could change" and similar expressions, in addition to nouns, such as: "plan", "goals", "desire", "need", "could", "will be". These forward-looking information and expressions involve risks and lack of certainty, because they are based on current assessments by the Bank of future events which includes, inter alia: Forecasts of economic developments in Israel and worldwide, especially the state of the economy, including the effect of macroeconomic and geopolitical conditions; changes and developments in the inter-currency markets and the capital markets, and other factors affecting the exposure to financial risks, changes in the financial strength of borrowers, the public’s preferences, legislation, supervisory regulations, the behavior of competitors, aspects related to the Bank’s image, technological developments and human resources issues.

The information presented here relies, inter alia, on publications of the Central Bureau of Statistics and the Ministry of Finance, on data from the Bank of Israel data, the Ministry of Housing and others who issue data and assessments with regard to the capital market in Israel and overseas as well as forecasts and future assessments on various topics, so that there is a possibility that events or developments forecast as anticipated would not materialize, in whole or in part.

Key supervisory ratios and overview of risk management and risk assets

Key supervisory ratios and overview of risk management and risk assets

Below is key data relevant for the Bank risk profile:

	For the quarter ended December 31, 2018	For the quarter ended September 30, 2018	For the quarter ended June 30, 2018	For the quarter ended March 31, 2018	For the quarter ended December 31, 2017	For the quarter ended September 30, 2017	For the quarter ended June 30, 2017	For the quarter ended March 31, 2017
Key supervisory and financial ratios								
Available capital								
Tier I capital[1]	15,172	14,951	14,508	14,436	14,333	14,055	13,920	13,533
Tier I capital before effect of transitional provisions	15,004	14,755	14,295	14,188	13,986	13,685	13,550	13,277
Total capital	20,687	19,825	19,368	19,249	19,584	18,658	18,408	17,975
Total capital before effect of transitional provisions	18,733	17,843	17,369	17,215	17,004	16,056	15,806	15,486
Risk weighted assets								
Total risk weighted assets (RWA)	151,627	147,872	145,784	142,129	140,524	138,363	137,151	133,783
Capital adequacy ratio (in %)								
Tier I capital ratio[1]	10.01	10.11	9.95	10.16	10.20	10.16	10.15	10.12
Tier I capital ratio before effect of transitional provisions	9.88	9.96	9.79	9.96	9.92	9.86	9.85	9.92
Total capital ratio	13.64	13.41	13.29	13.54	13.94	13.48	13.42	13.44
Total capital ratio before effect of transitional provisions	12.35	12.05	11.90	12.09	12.07	11.58	11.50	11.56
Tier I capital ratio required by Supervisor of Banks	9.84	9.84	9.84	9.86	9.86	9.86	9.87	9.87
Available Tier I capital ratio, beyond what is required by the Supervisor of Banks	0.17	0.27	0.11	0.30	0.34	0.30	0.28	0.25
Leverage ratio								
Total exposure	279,827	273,087	269,911	265,621	261,504	261,982	257,012	256,712
Leverage ratio (in %)[2]	5.42	5.47	5.38	5.43	5.48	5.36	5.42	5.27
Leverage ratio before effect of transitional provisions (in %)	5.36	5.40	5.30	5.34	5.35	5.22	5.27	5.17
Liquidity coverage ratio[3]								
Total high-quality liquid assets	40,572	40,361	39,599	40,648	39,938	39,976	41,800	39,980
Total outgoing cash flows, net	35,118	33,417	32,875	32,545	33,796	34,308	34,171	33,965
Liquidity coverage ratio (in %)	116	121	120	[7]125	118	117	122	118
Performance benchmarks								
Net profit return on equity[4][5]	[8]5.7	13.4	[8]6.1	10.3	11.2	[9]8.0	12.7	10.4
Profit return on risk assets[5][6]	[9]0.54	1.24	0.58	0.97	1.05	0.76	1.19	0.97
Deposits from the public to loans to the public, net	102.6	101.7	101.5	101.9	101.4	103.1	102.0	104.4
Key credit quality benchmarks								
Ratio of balance of provision for credit losses to total loans to the public	0.80	0.81	0.81	0.81	0.81	0.81	0.82	0.84
Ratio of impaired debts or debts in arrears 90 days or longer to loans to the public	1.23	1.17	1.12	1.09	1.02	0.97	0.89	0.95
Expenses with respect to credit losses to loans to the public, net for the period[5]	0.16	0.13	0.19	0.18	0.13	0.09	0.09	0.12
Of which: With respect to commercial loans other than housing loans	0.44	0.27	0.49	0.49	0.35	0.24	0.20	0.35
Of which: With respect to housing loans	0.01	0.05	0.04	0.02	0.02	0.02	0.04	–
Ratio of net accounting write-offs to average loans to the public[5]	0.12	0.09	0.11	0.13	0.11	0.09	0.09	0.11

	For the year ended December 31, 2018	For the year ended December 31, 2017
Performance benchmarks		
Net profit return on equity(4)(5)	(8)8.5	10.2
Profit return on risk assets(5)(6)	(9)0.83	0.99
Key credit quality benchmarks		
Expenses with respect to credit losses to loans to the public, net for the period(5)	0.16	0.11
Of which: With respect to commercial loans other than housing loans	0.40	0.27
Of which: With respect to housing loans	0.03	0.02
Ratio of net accounting write-offs to average loans to the public(5)	0.11	0.09

Financial ratios indicate:

- Net profit return in 2018 was affected by the provision with respect to the investigation by the US Department of Justice, as noted above, by 3.1 percentage points, so that reported return is 8.5%.
  Bank **operating profit** over the past five years shows double-digit returns on net profit for each year. Return on operating profit in 2018 shows further improvement in profitability compared to previous years.
- The provisions with respect to the investigation by the US Department of Justice caused some erosion of safety margins maintained by the Bank for its capital adequacy, and the reported Tier I capital ratio is 10.01% (or 0.17% above the minimum ratio required by the Supervisor of Banks).

---

(1) The Bank has no equity instruments included in "Additional Tier I capital", so that total Tier I capital equals total Tier I equity.
(2) 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
(3) 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.
(4) Net profit attributable to shareholders of the Bank.
(5) Calculated on annualized basis.
(6) Net profit to average risk assets.
(7) Includes the effect of implementation of Bank of Israel guidelines to apply a reduced withdrawal rate with respect to operational deposits, as from the first quarter of 2018.
(8) Net profit return on equity was affected by a provision amounting to NIS 546 million, with respect to the investigation by the US Department of Justice (NIS 425 million in the second quarter and NIS 121 million in the fourth quarter). Net profit return from the Bank's current operations, excluding the aforementioned provision and taking into account the provisions for bonus payments in line with operating profitability and related tax expenses, **is as follows**:
In the second quarter of 2018 – 14.1%.
In the fourth quarter of 2018 – 10.7%.
In 2018 – 11.6%.
(9) Net profit return on risk assets was affected by the provision with respect to the investigation by the US Department of Justice, as stated above, decrease by 0.30 and 0.47 percentage points in 2018 and in the fourth quarter of 2018, respectively.

Below is the capital for calculating the capital ratio after supervisory adjustments and deductions:

	As of December 31, 2018	As of December 31, 2017
Tier I shareholders' equity	15,172	14,333
Tier II capital	5,515	5,251
Total capital	**20,687**	**19,584**

Risk assets and capital requirements with respect to credit risk, market risk, CVA risk and operational risk are as follows:

	As of December 31, 2018 Weighted risk asset balances	As of December 31, 2018 Capital requirement(2)	As of December 31, 2017 Weighted risk asset balances	As of December 31, 2017 Capital requirement(3)
Credit risk	139,996	18,676	129,996	17,367
Market risk	1,494	198	1,605	214
CVA risk with respect to derivatives(1)	576	77	529	71
Operational Risk(4)	9,561	1,275	8,394	1,121
Total risk assets	**151,627**	**20,226**	**140,524**	**18,773**

(1) Credit Value Adjustments – mark to market with respect to credit risk of counter-party, in conformity with Basel III provisions.
(2) The capital requirement was calculated at 13.34% of risk asset balances.
(3) The capital requirement was calculated at 13.36% of risk asset balances.
(4) Capital allocation with respect to operational risk was calculated using the standard approach.

Bank approach to risk management (OVA)

This chapter describes how management and the Board of Directors assess and manage risk, so as to allow users to gain a clear understanding of the Bank's risk tolerance / risk appetite with regard to its major operations and for all significant risks.

General information regarding management of various risks and the risk profile

The Bank complies with Proper Conduct of Banking Business Directive 310 "Risks Management", which is based on the Basel Committee recommendations and 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 framework to be in line with regulatory requirements, the Bank's risk profile and its business targets. All policy documents for risk management and control at the Bank are based on these principles.

The risks management and control framework at the Bank, as recommended by the Basel Committee, specifies three pillars:

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 to the regulating authority and to the public.

Efficient, comprehensive risks management is a key foundation for ensuring the Bank's stability over time. Risks management and control processes at the Bank and at the Group are designed to identify, manage, quantify and mitigate all risks associated with Bank operations and to support achievement of the Bank's business objectives. The Bank is exposed to a succession of risks which may potentially impact its financial results and its image. The Bank exposed to financial risks, such as: credit risks and market and interest risks, as well as non-financial risks, such as: compliance risks, operating, legal, reputational risks etc.

Risks management at the Bank is conducted from a comprehensive viewpoint and in conformity with regulatory requirements, so as to support achievement of the Group's strategic objectives, while assuming risks in an informed manner and maintaining a risk level in line with the overall risk appetite specified by the Bank's Board of Directors.

Risk appetite defines the overall risk level which the Bank is willing and capable of assuming, and is a high-level determination of where the Bank wishes to be on the scale of reward (return) vs. risk (forward-looking view). Risk appetite is defined in qualitative and quantitative terms and is based on basic principles of the Bank's business and strategic plan and the required liquidity and capital for achieving the strategic objectives.

Risk tolerance is a specific determination 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.

Corporate governance of risks management at the Bank

Risks management at the Bank consists of all management and control layers at the Bank. These include: the Bank Board of Directors, management and business units, as well as internal control and audit functions. The Risks Control Division (headed by the Bank's CRO) is the overall entity tasked with risk management and control at the Bank.

The Bank has defined 3 lines of defense (LOD) in addition to the Board of Directors' lines of defense, which is responsible for specifying an appropriate culture and framework for handling risks and management, which is responsible for implementing the framework principles specified by the Board of Directors. These lines of defense are intended to ensure that the Bank has deployed an appropriate framework for risks management and control.

Lines of Defense

Line	Function	Reporting to	Role
First line of defense	Lines of business	President & CEO	Unit management 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 function, and other units.	President & CEO	The Risks Control Division, headed by the CRO, acts in concert with other divisions, including the Accounting and Financial Reporting Division and the Legal Division, the Bank Secretary's office, part of the Human Resources Division, some units of the Planning, Operations and Client Assets Division and the Public Ombudsman Unit, in order 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 and review of this framework in view of the strategic plan, annual work plan and the Bank's business targets.
Third line of defense	Internal Audit	The Bank's Board of Directors	Review 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. Communication about risks between the different lines of defense 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 events, while achieving the Bank's business targets.

Corporate governance of risks management at subsidiaries

As part of overall Group risks management at the Bank, risks management policy is coordinated with Bank subsidiaries. Supervision and control over subsidiaries is regular and reports are received from subsidiaries listing their exposure to various risks factors. Reports by Bank subsidiaries are incorporated into the Bank's quarterly risks document.
The functions involved in risks management and control at the Bank are as follows:

The Bank’s Board of Directors

The major roles of the Board of Directors are: setting risk policy and determination of the Bank's risk appetite, approval of the risk management and control framework, mapping the risks and principles for specific risk management policy documents for each risk, to guide the Bank in its day-to-day operations. The Board of Directors supervises 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 and integrity and ensures 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

This committee discusses issues concerning risks management and control at the Bank, including capital planning and management.

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 all risks and their evolution over time, with emphasis on events in the reported quarter, on the quarterly risks document and on the annual ICAAP document and results of the effect of the Bank of Israel Uniform Macro-economic Stress Scenario, as applied to 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.

Audit Committee

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. 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.

Remuneration Committee

The committee discusses the remuneration policy and makes its recommendations to the Board of Directors. The committee also approves the terms and conditions of contracting with officers.

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 and 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 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 risks 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 Manager, 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.

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: The Supreme Credit Committee, the Asset and Liability Management Committee, the Overseas Affiliates Committee, the Management Committee for Operational Risks Management, the Management Committee for Risks 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 Risks 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. The Risks Control Division is a key foundation of the Bank's second line of defense, acts independently of the risk-taking units and the CRO has direct access to the Bank Board of Directors.

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 adhered to, so as to ensure that the Bank is compliant with the risk appetite, in line with its risk profile, as approved by the Board of Directors.

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

The CRO is responsible for specifying the Bank's risk appetite framework, including leading the creation of the various policy documents, challenging capital management and challenging the work plans. 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 controls 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 Division (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 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 Bank branches and departments 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, 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 risks-based work plan, which is based, *inter alia*, on the outcome of the ICAAP process, debriefs and ad-hoc tests. 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 risks management framework policy, 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 – diverse forums, led by the Chief Risks Officer together with business unit managers, tasked with approval of risks management methodologies, stress scenarios and their outcomes, overviews of regulation and common practices, model validation and implementation recommendations, approval of policy documents and procedures and aspects of operational risks, including the risks map, risks assessment surveys, significant events and lesson learning processes, and other various 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.

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 potential impact to business operations over the coming year is assessed.

The table below lists the risk factors and management assessment of the impact of each risk factor, on a scale of five risk levels: low, low-medium, medium, medium-high, high.

The Bank specified the risk levels according to the estimated impact (potential impact) on Bank capital, determined based on the outcome of monitoring the various quantitative risk benchmarks specified by the Bank, as well as based on a qualitative assessment of risks management and control processes and the effectiveness of control circles, in line with the annual ICAAP process conducted by the Bank and its results. A process including self-assessment of risk levels, quality of risks management and control processes, including the direction of the risks evolution for the coming year and alignment with work plans of the various departments. These results are extensively discussed by management and by the Board of Directors.

General mapping of risk factors and their impact

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[1]	Risk factor impact	Risk Owner
Overall effect of credit risks	Low-medium	Manager, Business Division
Risk from quality of borrowers and collateral	Low-medium	
Risk from industry concentration	Low-medium	
Risk from concentration of borrowers/ borrower groups	Low	
Risk with respect to mortgage portfolio	Low	
Overall effect of market risk	Low-medium	Manager, Financial Division
Interest risk	Medium	
Inflation risk	Low-medium	
Exchange rate risk	Low	
Share price risk	Low	
Liquidity risk	Low-medium	Manager, Financial Division
Overall effect of operational risk	Medium	Manager, Risks Control Division
Cyber and information security	Medium	Manager, Risks Control Division
Information technology risk	Medium	Manager, Mizrahi-Tefahot Technology Division Ltd.
Legal risk	Low-medium	Chief Legal Counsel
Compliance and regulatory risk	Low-medium	Manager, Risks Control Division
AML and cross-border risk	Low-medium	Manager, Risks Control Division
Reputation risk[2]	Low	Manager, Marketing, Promotion and Business Development Division
Business-strategic risk[3]	Low-medium	President & CEO

(1) Assessment of the effect of risk factors takes into account the development in the US Department of Justice investigation. For more information about the Bank's Board of Directors' approval of signing a DPA agreement reached by the Bank and the US Department of Justice, to conclude the derivative investigation of Bank Group business with its US clients and its financial implications for these financial statements, see chapter "Strategic plan and forward-looking information" in the Report of the Board of Directors and Management, as well as Note 26.C.12 to the financial statements. For more information about a motion for approval of a derivative claim in this regard, see Note 26.C. 11.A to the financial statements.
(2) The risk of impairment of the Bank's results due to negative reports about the Bank.
(3) The definition of Business-strategic risk includes the capital planning and management process. See Note 9 to the financial statements.

The impact of the various risks factors in the table above have been determined based on management assessment, as provided from time to time. These assessments are based on monitoring of various quantitative risk benchmarks specified by the Bank, includes the direction of their development and are based on qualitative assessment of risks management and the effectiveness of control circles, in line with the Bank's ICAAP process and its results , led by the Bank's Risk Managers.

The Bank conducts processes for risk identification and measurement, base on a range of methodologies to assess risk levels and exposure to various risks, in the normal course of business and under stress scenarios. The Bank applies quantitative measurement methods (models, benchmarks / indicators, scenarios and sensitivity analysis, *inter alia*) and qualitative measurement methods (expert assessments and surveys).

Stress scenarios

Stress scenarios are risk management techniques used to assess Bank exposure to risks, both currently and from a forward-looking viewpoint. Stress scenarios are another, complementary tool which is an integral part of approaches, benchmarks and models used for risks management. Stress scenario outcomes are used by the Bank to challenge the risk appetite and the capital planning. Stress scenarios reveal material risk concentrations, 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 model due to inherent limitations in such 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.

Stress scenarios are applied at various levels, from scenarios applied at segment and risk level, a system-wide scenario to review simultaneous realization of multiple risks, based on the Bank of Israel uniform macro-economic scenario, through application of threat scenarios, scenarios designed to verify that the Bank has sufficient capital cushions to survive even holistic scenarios, with a minimal realization likelihood, and that the Bank is compliant with the Tier I capital ratio restriction for a threat scenario – a minimum capital ratio of 6.5%. The Bank also applies Reverse Stress Tests ("RST") which review, based on the Bank's risk profile, which event is likely to bring the Bank closest to the Tier I capital limit under a stress scenario.

System-wide scenario

The system-wide scenario is a uniform macro-economic stress scenario, prepared by the Supervisor of Banks for the banking system, primarily based on changes to macro-economic variables under hypothetical scenarios, designed to conduct systemic and individual testing of the financial stability of the banking system in a different macro-economic environment and to identify the major risk hubs.

The scenario specified in 2018, for a 3-year horizon, describes a local shock against the backdrop of geo-political events resulting in lower GDP, higher unemployment, while the global economy concurrently returns to a stable course. Interest rates are higher, while housing prices are sharply lower. This scenario has implications for both the real and financial sides of the Israeli economy. The outcome of the Bank's uniform scenario (submitted to the Bank of Israel in December 2018) shows that the damage of this scenario to the Bank is low in relation to Bank capital and profit. These results are primarily due to the credit risk level at the Bank, which is not high, due to the Bank being oriented towards retail business with a significant mortgage component and high financing margin and operating efficiency. and low risk in exposures to counter parties, including banks and sovereigns, we well as management of a debentures portfolio, mostly for investment of excess liquidity, in high-quality assets with minimal credit risk. Note that the scenario assumes "passive management", i.e. the Bank takes no action to manage its risks, balance sheet and capital throughout the scenario period. This is despite the fact that the Bank is capable of dynamically and flexibly managing its sources and uses, while maintaining its risk profile.

ICAAP process

ICAAP is a process for assessment of internal capital (Pillar 2), 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 strategic plan. 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, their management f and identification of risk hubs.

The ICAAP document, compiled as part of Pillar 2, 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, submitted to the Bank of Israel at the end of the year, includes both qualitative and quantitative aspects.

The qualitative assessment process is a self-assessment process of the risks level and quality of risks management, conducted annually by the Bank through the Risk Assessment System (RAS) process, for all relevant risks at the Bank, designed to provide qualitative assessment of the risk profile at the Bank and to identify the major risk hubs. Furthermore, a review is conducted of the need for further capital allocation, as part of capital planning under Pillar 2.

The quality of risks management is high to very high in general, and has been constantly improving, which reflects the Bank's on-going and continuous activity to improve the quality of risks management and the effectiveness of controls. The risk direction for the coming year is essentially unchanged for most of the risks.

Based on these results, Bank management, the Risks Management Committee and the Bank’s Board of Directors have determined that no capital allocation is required with respect to risks management quality, and that the risk profile is in line with the Bank's risk appetite.

As part of the RAS process, the heat map was created for material risks to which the Bank is exposed. Based on identification of challenges and risks facing the Bank, the objective of the heat map is, *inter alia*, to focus the Bank on handling the various risks. For each risk, its impact on Bank operations and achievement of business targets is evaluated, taking into consideration the current Bank exposures and quality of management and controls. and the likelihood of risk materialization over the coming year, considering the historical behavior, assessment and knowledge of expected developments.

The qualitative assessment process indicates that the level of all risks at the Bank is not high, and management quality is good and appropriate for the business activity. Risk hubs are identified and handled by the work plans of all Bank divisions.

The quantitative assessment process, capital planning as part of ICAAP, reflects the overall risk level at the Bank, measured in terms of required capital against potential loss expected for the Bank, in the normal course of business and under stress scenarios. This capital is estimated by an internal assessment process, for all risks to which the Bank is exposed, based on the Bank's strategic plan and over a three-year planning horizon.

Capital planning as part of ICAAP includes Pillar 1 capital allocation, based on risk assets calculated using the standard approach, in conformity with Proper Conduct of Banking Business Directives for capital measurement and adequacy, including credit, market, CVA and operational risk. As well as the additional capital allocation under Pillar 2, with respect to risks not listed under Pillar 1 and additions with respect to risks listed under Pillar 1 but the Bank believes that the capital allocated with respect to it under this pillar is insufficient, in the normal course of business and under stress scenarios.

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 threat scenarios. Moreover, the Tier I capital ratio under the threat scenario, for each year of the scenario period, does not drop below 6.5%.

In 2018, Bank management and the Bank's Board of Directors approved all of the Bank's risk management and control policy documents. In particular, the credit policy was revised, *inter alia*, in conformity with Proper Conduct of Banking Business Directive 330 "Policy on management of client trading activity on the capital market". The market and interest risk management policy was updated, after changes were made to the methodology for measuring interest risk, in conformity with the Basel principles and common practice, which is compatible with the Bank implementation of such principles; the IT risk management policy was updates in line with leading technology trends in the market today, in particular with regard to cloud computing and open source.

A new policy document was created, "Overseas affiliates policy", in conformity with the new Proper Conduct of Banking Business Directive 306 "Supervision of overseas affiliates", which became effective in January 2019. This document highlights the currently existing framework for management and control of risks arising from Bank operations at overseas affiliates, how risks are managed, risks measurement, including the risk appetite and means for risk mitigation.

The Bank maintains 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 quarterly risks document is a report used as a primary tool by the Board of Directors to maintain effective monitoring of Bank operations and compatibility with the specified risk appetite and risks management framework. This document includes the following: Developments in the risk profile vs. risk appetite, both quantitative and qualitative, 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 resilience, material lessons learned with regard to various risks and other quantitative / qualitative information with regard to anticipated developments at the Bank and/or in the banking system.

Hedging and risk mitigation

The organizational culture for risks management and corporate governance at the Bank is the main means for risks mitigation existing at the Bank. 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. 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. The current strategic plan was approved in November 2016 and its principles have been made public. The strategic plan is based on three key principles: Growth, differentiation and efficiency, and forms the basis for specific work plans for the various units.

Business-strategic risk is the risk, in real time or in future, to Bank profits, capital, reputation or status, due to 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.

Business-strategic risk is inherent in all Bank operations and is impacted both by internal factors (such as: corporate governance failures, credit failures and exposures, technological risk and so forth) and by external factors (such as: regulatory changes, competition risk, changes to consumer behavior, macro-economic factors and so forth).

Bank management regular monitors the achievement of work plan targets. Risks control maintains regular processes to challenge the work plans and achievement of strategic plan targets.

Rapid evolution of technological developments in recent years has been changing the landscape of the financial world. These changes impact the survivability and nature of banks in future. The Supervisor of Banks provides incentives for banks to improve their efficiency, based on the understanding that the future bank would be more technology oriented and less based on human personnel. 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 has launched a systematic effort, in the permanent steering committee on innovation, designed to monitor activity in the banking system, 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 client experience, reinforcing the trust-based relationship with clients, 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.

Risk culture at the Bank

The Bank Group 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, as noted above, the annual work plans, based on the Bank's strategic plan. 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 / activity – The launch of a new product or activity at the Bank (as well as revision of an existing one) in order to achieve business targets 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 policy on risks management framework, 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 the entire list of risks mapped by the Bank, including reference to operating, technology and accounting 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: those having 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 operating areas and 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 internal or external 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 chain – Risks communication is a key pillar of the Bank's capacity to manage its risks. The Bank has a specified set of reports, in the policy on risks management framework, specifying the required reports under normal conditions, in a state of alert and under stress (emergency) conditions between all lines of defense specified by the Bank, as needed and in conformity with potential situations.
- 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 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, emphasizing 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, as set forth below.

For more information about remuneration policy for all Bank employees other than officers for 2017-2019, approved by the Board of Directors on March 20, 2017, see Note 22 to the 2018 financial statements.

For more information about remuneration at the Bank and its support for the risk 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:

- regular reporting procedures in case of materialization of unusual events, including approaching the limits or deviation from the risk appetite. These procedures are part of 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, and the internal audit function, which is the third line, 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.
- Regular monitoring of deficiencies and gaps in risk management infrastructure and as raised by the ICAAP process and the risk heat map, in the quarterly risks document discussed by management and by the Board of Directors.

- 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 Act. 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 Risks Management Committee.
- The Compliance Officer conducts an annual discussion, in person, with the Board of Director's Audit Committee.

The Code of Ethics

Full transparency is a prerequisite of corporate governance, and in particular as it 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.

The Bank operates an Ethics Committee, headed by the Bank Secretary. 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.

Summary of Bank policy on major risks and developments in 2018

On March 12, 2019, the Bank signed a DPA agreement with the US Department of Justice to conclude the investigation into the Bank Group's business with its US clients. For more information see chapter "Business goals and strategy" and chapter "Explanation and analysis of results and business standing (Significant Events in the Bank Group's Business)" in the Report of the Board of Directors and Management, as well as Note 26.C.12 to the financial statements.
In view of the foregoing, the Bank's Board of Directors did not declare a distribution of dividends with respect to earnings of the second and third quarters of 2018 and did not declare a distribution of dividends with respect to earnings of the fourth quarter of this year upon approval of these financial statements, with the capital adequacy presented on these financial statements being as follows: Tier I capital ratio – 10.01% (0.17% above the minimum ratio required by the Supervisor of Banks) and total capital ratio – 13.64% (0.30% above the minimum ratio required by the Supervisor of Banks).
The Bank's Board of Directors, upon approving the signing of the agreement by the Bank, estimated that the Bank can achieve the outline for the five-year strategic plan for 2017-2021.
The Board of Directors further estimated that in 2019, the Bank could resume acting in conformity with its policy of distributing dividends, subject to terms and conditions prescribed in the strategic plan, including compliance with statutory requirements and limits stipulated by the Supervisor of Banks.

The Board of Directors shall continue to monitor execution of the strategic plan, and may make changes to this plan from time to time, as required, including due to changes in factors which may affect the plan, as described above.

This information constitutes forward-looking information, as defined in the Securities Act, 1968 and based on assumptions, facts and data underlying the strategic plan and listed therein, which may fail to materialize due to factors not solely under Bank control, causing the the strategic plan, including with regard to the policy of distribution of dividends, to fail to materialize.

For more information about business-strategic risk, see chapter "Business-strategic risk" below.

Below is a summary of Bank policy for the major risks, inter-connections between the risk profile and risk tolerance, and developments in 2018:

Credit risk

Credit risk is the risk that a borrower or counter-party of the Bank would not fulfill its obligations towards the Bank. Credit risk is a material risk to Bank operations. This risk is affected by multiple factors: Business risk due to client 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, 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 operations and therefore, credit risk is the major risk addressed by the banking system. Accordingly, the lion's share of capital allocated in Tier I is with respect to credit risk. The Bank 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 75% of credit activity at the Bank Group. In conformity with principles of the Bank's strategic plan, the Bank strives to establish and maintain its leadership position in the retail sector and to increase focus on and expand operations of the business segments. The Bank's strategic plan has material effect on the nature of credit operations, risk level and business focus on various segments.
The Bank's credit risks 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 client trading activity in derivatives and securities, which stipulates the principles for management and monitoring of Bank clients with activity involving derivatives and securities; collateral policy, which stipulates the principles required for management of client collateral, safety factors required by transaction type and risk factors; and the environmental risks policy.

The credit policies document is discussed and approved by the Supreme 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 Supreme Credit Committee, headed by the Bank President & CEO, is the most senior forum for credit approval at the Bank. The Manager, Business Division is the Risk Manager for credit risk, including credit concentration and environmental credit risk. The Manager, Risks Control Division (CRO) is responsible for the policy document.

Bank policy is primarily based on Proper Conduct of Banking Business Directive 311 and on principles of the credit risks management framework and the risk appetite specified for the credit portfolio. The policy sets limits within which the Bank's business units may operate when approving, extending and operating credit for Bank clients. The objective of these limits and guidelines is to specify criteria to determine the borrower quality, collateral quality, credit amount, credit term, how collateral is managed and risks mitigation. The limits are specified by operating segment and specific sector in which the Bank extends credit. The Bank has multiple quantitative limits on risk factors relevant for credit operations, which allow the Bank to monitor and take action in order to control this risk. For most topics, there are two limit types: Board limits, which reflect the risk appetite and maximum exposure specified by the Board of Directors, and management limits, which are stricter than the Board limits and are designed to serve as a management tool for close monitoring of credit risk at the Bank. As a rule, no deviations are permitted from the risk appetite limits.

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. The Bank manages its credit operations in multiple segments, primarily: mortgages, business banking, commercial banking, households and small businesses. These segments differ by client 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.

The Bank manages its business credit operations in multiple segments, primarily: large businesses, medium businesses, small businesses and households. The division into credit operating segments is supported by the Bank's organizational structure. Credit for large and medium businesses is managed by the corporate sector, real estate sector and business sector of the Business Division. Credit for small businesses and individuals is managed by the commercial banking sector of the Retail Division, which is in charge of credit for small businesses and households (except for mortgages). In this role, the sector guides the regions and branches with regard to credit operations for the relevant populations, subject to the Bank's credit policy and procedures.

In conformity with directives of the Supervisor of Banks, the Bank has specified 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 clients in various operating segments divided among different divisions (Retail, Business, Finance) 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 client segments are responsible for regularly verification, monitoring and control of exposure to clients and operating segments for which they are responsible. This line of defense includes specific control units, such as division controllers, control over clients capital market exposures and other control functions. A set of procedures ensures the actual implementation of policy guidelines.

Second line of defense – the Risks Control Division, operating in credit risks management 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 clients, as part of the credit approval process.

Accounting and Financial Reporting Division – The Chief Accountant is responsible for appropriate credit classification and for determination of provisions for credit losses.

Legal Division – Responsible for statutory provisions and legislative changes that impact 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.

Business loans are managed using a range of risk benchmarks and its risk level is low-medium. The Bank has the business. legal and operating infrastructure for flexible management of credit risk by selling and/or sharing risk. In 2018, there were no deviations from risk limits, and the Bank is acting and constantly reviewing the limits, in line with the scope of operations and risk.

Housing loans carry a significant weight out of total credit risk of the Bank; however, the overall risk level in the mortgage portfolio is low. This area typically has a widely diversified borrower base from different economic sectors with relatively low LTV ratios. Extensive geographic diversification of pledged properties. The Bank also uses various risk mitigators, including property insurance and life insurance. In 2018, the leading risk benchmarks remain stable: In particular: LTV ratio (original LTV ratio in the portfolio:

54%), repayment ratio, rate of obligo in default; rate of arrears for new loans (up to one year since origination). The rate of arrears for new loans (up to one year since origination) has been low in recent years.

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. In October 2017, the Bank of Israel issued a directive concerning "Management of credit risk associated with client trading of derivative instruments and securities". In particular, for clients engaged in speculative activity. This directive became effective in July 2018. The Bank has implemented this directive as required, including an update to the credit management policy and setting of the risk appetite. The scope of business and risk level at the Bank in this area are low.

The micro and small business segment is highly diversified in terms of clients 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 flows, 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. The risk level in the credit portfolio for small and micro-businesses is constantly monitored, including use of custom credit rating models and monitoring of high-risk economic sectors. In 2018, the Bank continued development of computer-based processes for credit applications and a model to determine differential interest authorizations.

The household segment is a key growth engine and a significant component of the Bank's strategic plan. The individual client segment is highly diversified – by number of clients and by geographic location. Most clients 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 clients who face difficulties.

In 2018, the Bank continued to deploy, implement and use advanced models under development for optimal analysis and management of retail credit, including an update and redefinition of some risk benchmarks. As from mid 2018, most clients of the Retail Division are rated using advanced custom models. These models quantify the probability of default (PD) and the loss given default (LGD) for small businesses and individual clients of the Retail Division. Actual current management at the Retail Division is primarily based on the MADHOM system (for client management, rating and pricing). The credit risk profile of individual clients, based on the internal model, shows a risk level which is not high and stable over time.

Market and interest risk in the bank portfolio

Bank policy on addressing market and interest risks describes how such risks are managed, risks measurement in the normal course of business and under stress scenarios, monitoring of the risk profile in view of guidelines and limits specified by management and by the Board of Directors. The policy principles and risk appetite were specified in line with Bank strategy, being a Bank with mostly long-term mortgages as assets and with interest risk inherent in the balance sheet structured, along with financing profit from short-term sources vs. long-term uses, and in conformity with regulatory requirements.

Market and interest risks management at the Bank and Group is conducted in conformity with Bank of Israel directives: Directive 339 "Market risks management, market risk" and Directive 333 "Interest risks management". And in conformity with the relevant Basel Committee directives and best practice world-wide.

Risks management and control is designed to maintain a reasonable risk level in conformity with the risk appetite, while taking advantage of opportunities and constant monitoring of the risk profile, so that the Bank would not be exposed to significant losses. 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, which is convened monthly. Bank management is responsible for implementation of the framework principles specified by the Board of Directors, for specifying operating guidelines, handling new products and activities and is responsible for models and calculation methodologies.
Special committees and forums, created for risks management and in order to create an internal controls system, designed to prevent deviation from Bank policy in its activity in the negotiable portfolio and in the bank portfolio.

First line of defense – The Manager of the Finance Division (CFO), who is the market, interest and liquidity risk owner at the Bank, specifies guidelines for regular operations for management of market and interest risks, subject to limits specified by the Board of Directors and management. The Financial Management Sector of the Finance Division is the entity which manages exposure to market, interest and liquidity risks on a regular basis and acts to implement the policies and the decisions made, for management of these risks and control required based on operations of the first line of defense, in conformity with Bank of Israel directives.

Second line of defense – The Manager, Risks Control Division (the Chief Risks Officer – CRO) is responsible for the overall risk management framework, regularly monitors the market and interest risk profile of both the Bank portfolio and the negotiable portfolio, by applying diverse measurement methods beyond the risk measurement in the first line of defense, as well as stress scenario results. They also discuss and specify methodologies for risks management and control, including measurement methods which could support portfolio monitoring operations, addressing the various aspects of risks management and control for market, interest and liquidity risks, including conclusions derived from validation processes of the relevant models, conducted by the Risks Control Division. With regard to trading room operations, risks control is the Middle Office for risks monitoring, including market risk.

Third line of defense – Internal Audit conducts audits in accordance with the multi-annual plan, to evaluate and assess the effectiveness of control processes.

Measurement of market and interest risks is supported by a wide range of information systems, models, processes, risk benchmarks and stress scenarios. The economic value approach was determined as the leading method for interest risk management. This approach takes into account the potential impac of changes in interest rates on the present value of all future cash flows, providing a comprehensive view of long-term impact of changes to interest rates. Along with this approach, the Bank also applies the earnings approach in different models and as a major tool in the process to specify the annual work plans.
The information systems involved in the calculation are regularly reviewed, through internal controls processes at the Bank and continuous validation processes, in order to ensure completeness and accuracy of data and calculations. Risk benchmarks are calculated, in the normal course of business and under stress scenarios, applying various methods designed to estimate the Bank's expected loss as a result of sharp fluctuations in prices of market risks factors.
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.
Key risk mitigators include efficient, active management of market and interest risks which is based on high-frequency, current measurement, a structured reporting chain and a controlled report system. Furthermore, the ability to react and actively manage the positions, by setting shadow prices / transfer prices for all business units and conducting proactive transactions, using both on-balance sheet financial Instruments and derivatives.

In 2018, the risk level remained Low-Medium. The values of risk benchmarks in the normal course of business, such as VaR, remained relatively low, whereas the stress scenarios that simulate extreme concurrent increase in interest rates showed high values within the specified risk limits, without deviations from the specified risk appetite.

Bank methods for measuring risk values are conservative in many aspects, and during the year, the Bank conducted a comprehensive review of the risk estimation methodology, in line with common practice for implementation of the Basel principles. Consequently, Bank policy, including measurement methods and the resulting risk limits, was significantly revised in the first quarter of 2019, so as to more reliably reflect the interest exposure, including dynamic effects of behavioral options inherent in the mortgage portfolio and in deposits, which are dependent on interest.

Liquidity risk

This risk results from uncertainty as to the availability of sources and the ability to realize assets within a specified period of time and at a reasonable price. This risk is material and unique, due to the need to respond to it in the shortest possible time. Risk materialization may cause the Bank to incur significant loss and may even result in collapse of the Bank.

Liquidity risk is managed in conjunction with Proper Conduct of Banking Business Directive 310 "Risks management", Directive 342 "Liquidity risk management" and Directive 221 "Liquidity coverage 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 noted, as from January 1, 2017, the minimum required is 100%. 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. This is in addition to liquidity risk management using internal models, as stipulated by Directive 342.

Liquidity risk management is covered by the policy document, which covers how risks are managed, including roles and responsibilities of the various organs, the regular management of liquidity risk, all parameters used for risks 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 ratio directive(Directive 221) and compliance with targets for all business units at the Bank for raising and management of resources. The Risks Control Division (second line of defense) 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 clients etc.

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.

The Liquidity Risk Manager at the Bank is the Manager, Finance Division. Liquidity risk management is conducted in conjunction with the general risks management framework at the Bank, consisting of three lines of defense.

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.

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 the fourth quarter of 2018, the Bank maintained appropriate liquidity by investing excess liquidity in liquid assets of very high quality – Level 1 assets. The average (consolidated) liquidity coverage ratio for the fourth quarter of 2018 was 116%. In this quarter, there were no recorded deviations from ratio restrictions.

In recent years, ISA has taken steps to regulate the ETN market in Israel and to increase supervision thereof, through an amendment to the Mutual Investment Act. This amendment, approved by the Knesset Finance Committee on May 1, 2018, which became effective in early October 2018, applies the Mutual Investment Act to ETNs. This Act stipulates restrictions on holding of various assets, hence the amendment impacted the deposit mix at banks of these entities. In the fourth quarter, the average liquidity coverage ratio decreased by 5 basis points compared to the third quarter. The decrease is primarily due to the impact of an amendment to the Mutual Investment Act.

The Bank is preparing to address these effects in timely manner and applied a well-ordered work plan to reinforce and maintain liquidity ratios in the fourth quarter of 2018.

In 2018, no deviations were recorded from the Board of Directors limits and the alert level was at "Normal course of business", except for two occurrences:

In the second quarter of 2018, for several days, the Bank declared a higher state of alert for liquidity risk management, following defense events at the Northern border. During these days, the Bank closely monitored the various indicators, market prices and depositor behavior.

In December, the Bank raised its state of alert to Elevated, due to market volatility in Israel and world-wide. In practice, no events and/or indications were observed which would indicate realization of a liquidity event. After markets have calmed down,the Bank decided to return to the normal course of business.

Operational risks

Operational risk is material, since it exists across all operating segments and Bank units. Operational risk may potentially impact earnings, revenues, capital and reputation of the Bank and is inter-related to other risks.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.

The policy on operational risks management framework specifies the principles used by the Bank to identify, manage, measure, monitor and control operational risks on a regular basis. 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 lines of defense, specifies the risk appetite and stipulates the importance of deploying an appropriate culture for management of operational risks at the Bank and Group. Risks management at the Bank is conducted in conformity with Bank of Israel directives: Directive 350 "Operating risk management" and Directive 310 "Risks management", which specify the overall risks management framework, and the Basel document "Principles for management of operational risk" (dated June 2011), which specify the rules for proper management of operational risk.

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 operational 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. For risk management at Bank units, the Bank appointed operational risk trustees. The operational risk trustees, most of whom operate in the first line of defense, are responsible for handling operational risk and IT risk at their unit. Currently there are over 200 operational risk trustees working at the Bank, most of them at Bank branches.

Second line of defense The Risks Control Division and, in particular, the Operational Risks Unit of 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 maintenance 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.

Third line of defense: Internal Audit acts independently to conduct audits of operational risk management in accordance with a multi-annual plan, in order to ascertain the effectiveness of handling such risk, with reference to operational risks across all processes audited thereby.

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 operational risk categories according to Bank of Israel directives.

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.

The Bank operates forums and committees for handling operational 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.
- Operational Risks Steering Committee – serves as an advisory committee to the Chief Risks Officer with regard to operational risks management.
- Operational risks monitoring forums – Dedicated forums headed by the Chief Risks Officer, with each of the relevant Bank divisions (Business, Finance, Retail, Planning and Operations, Client Assets and Technology). These forums are tasked with discussing control aspects.

The Bank framework for handling operational risk is reviewed quarterly, as part of the Bank's Risks Document. The quantitative and qualitative risk profile is presented in in view of the quantitative and qualitative risk appetite and the most material events which occurred during the quarter are also presented and analyzed.

The organizational structure for operational risk management includes operational risk as well as business continuity risk, information security and cyber security risk, IT risk and legal risk.

In 2018, the operational risk level remained Medium. During the year there were no material operational events, and the risk level reflects the potential damage that may be caused by materialization of operational risks. During the year, activity continued to improve monitoring, management and control of operational risks, with emphasis on upgrading the IT system for management of risks surveys and further activity to identify, analyze and enhance awareness of the various operational risks.

Business continuity risk – In the fourth quarter of 2018, the Bank completed a business implications analysis (BIA) process, as part of the multi-annual maintenance plan, and its conclusions were presented to and approved by management. Furthermore, a report was presented to the Board of Directors with regard to implementation of the business continuity plan, including ratification of the policy document on business continuity and discussion of the effectiveness of the working framework for business continuity management.

Information security and cyber defense – in 2018, the risk level remained Medium. In the fourth quarter of 2018, a small number of fraud attempts against clients were identified (through fishing attacks), which resulted in stealing their account credentials in order to conduct unauthorized transactions in their accounts. Most of these attempts to conduct unauthorized transactions were identified and blocked by the defense systems applied by the Bank to protect its client accounts. In the fourth quarter of 2018, the Bank obtained an insurance policy to cover cyber damage for the Bank Group. The insurance coverage acquired in this insurance policy is another layer, over and above the existing banking insurance policy, which also provides insurance coverage for items not covered by the existing banking insurance policy including: consequential damage due to disruption of operations due to a cyber event, cyber extortion, operating failure due to a cyber event and reimbursement of special expenses with respect to a cyber attack.

IT risk – Given current developments in the financial market, the age of current Bank systems and transition of Bank Yahav to a new platform, the Bank has completed the feasibility study of transition of the Bank's capital market system to the capital market module of the new platform. The project was launched in the first quarter of 2019.

Legal risk – In the second quarter of 2018, the legal risk level increased from Low-Medium to Medium due to potential legal implications of the US Department of Justice investigation. Despite approval of the agreement with the US authorities, the Bank maintains the legal risk level at Medium at this time. Pending clarification of any legal implications with respect to the agreement with the US authorities.

Compliance and regulatory risk

As part of compliance risks management at the Bank, the Bank ensures implementation of all regulatory provisions applicable to the Bank. The Bank is acting in conformity with Proper Conduct of Banking Business Directive 308, which applies 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 risk includes the subject of fairness

The Bank operates in conformity with policies on compliance and regulation risk management, approved by the Bank's Board of Directors. Compliance risks are managed by identification, documentation and assessment of compliance risk associated with business operations of the Bank, including developments related to new products, business conduct, lines of business or new clients, or to material changes to any of the above, through various measurement methods.

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 specified that any faults discovered in compliance with statutory provisions would be addressed by Bank units as a top priority. The compliance and regulatory Risk Manager for the Bank is the Manager, Risks Control Division. The Compliance Officer is responsible for continuous management of this risk.

Compliance and regulatory risk, just like all other risk at the Bank, is managed by three lines of defense:

First line of defense – Includes the business units, in charge or compliance risk mitigation and control.

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 anti-trust 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 Division is responsible for deployment of an organizational culture of compliance with procedures and with the Law and fair dealing with clients 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 departments in the second line of defense.

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 deals fairly with all stake holders. The value of fairness is enterprise-wide and is based on application of basic values: integrity, fairness and transparency. The Bank strives to maintain a fair relationship with its clients and with other stakeholders.

The Bank maintains effective enforcement programs for securities law and for anti-trust 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 to avoid violation thereof.

The Compliance Division 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.

The inherent compliance risk is not low, due to increased regulation and new directives issued with high frequency.

In 2018, compliance risk remained unchanged at Low-Medium; however, the Bank believes that this risk is trending downwards. The decline is due, *inter alia*, to further addressing of risks classified as high and to further enhancement of controls and training and continued improvement in efficiency of work processes in this area. And from action taken to improve interfaces between units. This is in view of further increased regulatory activity reflected, *inter alia*, in new directives being issued frequently, which the Bank is preparing for.

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 clients in contravention of any statutory provisions.

Cross-border risk includes, *inter alia*, risk of damage, including injury 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 clients, AML and terror financing laws, sanctions imposed by international bodies and foreign authorities or other laws. Cross-border risk also applies at the Bank's overseas affiliates; in transactions with clients who are foreign residents; in business operations conducted by Bank representatives in foreign countries; and with regard to funds of Israeli clients invested overseas.

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 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 and the Business Division, which are responsible for monitoring and reducing cross-border risk in their activity with relevant clients, international operations, which is responsible for operations at tourist and private banking branches in Israel, as well as for overseas Bank affiliates through local compliance units at each affiliate.

Second line of defense – the Compliance Division 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 Division is assisted by the Legal Division, the Planning 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 the FATCA agreement and provides timely reports to the Israeli Tax Authority/ The Bank is compliant with terms and conditions of the QI agreement and is preparing to implement the CRS regulations. 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 subject to international sanctions.

In 2018, cross-border tisk remained unchanged at Low-Medium. The Bank continues its processes for improvement of risk management quality by, *inter alia*, computer-based work processes and delivery of training with regard to cross-border risks and disabling activity of non-cooperative clients. The Bank is completing its preparations for reporting in conformity with regulations issued in early 2019 with regard to CRS, so as to meet the specified schedules.

AML risk

AML and terror financing risk is the risk of financial loss 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.

When opening an account, as well as during normal business operations, the Bank acts to identify clients who may be exposed to offering, accepting or brokering bribes.

In early 2018, Proper Conduct of Banking Business Directive 411 "AML and Terror Financing Risk Management" became effective. The Bank implements this directive, which introduced significant changes to definitions, Know Your Client, setting risk levels and other changes, with emphasis on risk-based management.

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

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

AML 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. The Legal Division is responsible for management of general statutory provisions applicable to the Bank, as part of the second line of defense.

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 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 clients that may be exposed to bribery and corruption. The Bank also avoids any activities opposed to the international sanctions regime of OFAC (of the US Department of Treasury) and of the European Union.

The Bank operates different computer systems for identifying unusual activity and for monitoring the handling of subjective reports provided to the AML Authority by the Compliance Division.

The Bank manages and monitors quarterly changes in quantitative / qualitative benchmarks relevant for compliance risks management. Moreover, the Division also applies various controls to activity in different accounts, based on their risk profile, and also provides regular advice to branches and delivers customized training to various Bank employees, based on their position. 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.

When opening an account, as well as during normal business operations, the Bank acts to identify clients who may be exposed to offering, accepting or brokering bribes.

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. 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 2018, the AML risk level remained unchanged, due to further intensive training and deployment activity, along with risk-focused controls and taking effective action to avoid recurrence of unusual events and compliance failures, against the backdrop of busines growth and further enhanced regulatory activity reflected, *inter alia*, in new directives issued more frequently, for which the Bank is preparing as required. In 2018, the Bank implemented a new AML system (MEA), used to monitor unusual transactions which give rise to concerns with regard to AML.

Reputation risk

Reputation risk is defined as the risk of negative perception by existing clients, potential clients, suppliers, shareholders, investors or regulators which may negatively affect the Bank's capacity to retain or create business relationships and may impact access to financing sources. Reputation risk is present across the Bank and is related to adequacy of internal risk management processes at the Bank, to the nature and efficiency of management response to internal or external events which may impact the Bank's reputation. In most cases, reputation risk may cause / increase other risks (credit risk and, in particular, liquidity risk) or may result from materialization of any other "traditional" risks to which the Bank is exposed.

Risk appetite for reputation risk is minimal. Reputation risk is stand-alone as well as resulting from other risks, hence the Bank's risk appetite for reputation risk is directly related to risk appetite for other risks.

The Reputational Risk Manager is the Manager, Marketing, Promotion and Business Development Division at the Bank. Reputation risk is managed by three lines of defense, where the first line of defense includes the Risk Manager in charge of management and monitoring of reputation risk, in the normal course of business and in emergency, in line with principles stated in the policy document, including management of committees, providing the required reports, announcing the start and end of events, convening committees, conducting market surveys and public opinion polls.

The Bank has a dedicated policy document for addressing reputation risk, which specifies guidelines for risks management, risk appetite, risks measurement and ways to mitigate risks. 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. This framework includes monitoring of risk benchmarks and indicators which may indicate concern about creation of such risk, and a high-level reporting and communications chain, which allows for early detection and quick response through qualitative and quantitative processes. These processes serve as risk mitigators and minimize the effect of reputation risk on other risks. 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.

Bank policy specifies the roles and responsibilities with regard to management of reputation risk; in particular, it specifies the responsibility of the Risk Manager and specifies means to address this risk in the normal course of business and in case of stress events. 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 Risk Managers at the Bank.

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:

- Credit risk

  The Bank constantly uses IT systems for management, detection, control and reduction of 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 client 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 housing loans and mortgages, including built-in controls over the process.
- System used to locate and flag clients 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 clients 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 clients.
- Custom system in the Cebron trading system, used to manage, locate and control exposure with respect to clients 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 client 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.

- Client management, rating and pricing system (MADHOM) for rating the retail credit portfolio for individuals and small businesses. This system has been deployed to branches and incorporated in the credit extending process, credit authorizations have been specified for clients based on MADHOM ratings and the system has been used to monitor high-risk clients.
- Credit application system for corporate, individual and business clients and for approved temporary credit at the Retail Division. Used to maintain controls over the underwriting process.

- Market and interest risk in the bank portfolio

The "Algorythmics" system is used as the central system 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 managers also use the SAS platform, 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.

- Liquidity risk

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 was created on the SAS platform, based on a daily database containing client 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.

- Operational risk and information security

A custom system for operational risks management (PSTL – Operational Risk Portal), used by the Bank to monitor and analyze failure events, risks surveys and heat 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.

Fraud and embezzlement system – the Bank is about to complete a process to review an advanced system for fraud monitoring.

The authorization management and control system (NOVA) is being deployed, and should serve as the IT system for management and control processes with regard to authorizations and identities on the various systems.

- Compliance and AML risk
  - Compliance risk management system – this system is used for risks management, control management, task monitoring and for management and monitoring of decisions and processes. This system allows for dynamic specification, execution and monitoring of processes. The system displays a current overview of work processes for each stage, in real time.

- The AML system (MEA) for locating and prohibition of money laundering is used to monitor unusual activity which gives rise to concern with regard to AML. This system, deployed and used since 2018, has combined activities from previous systems into a single system – for monitoring, review, debriefing of the transaction, sending it to the Compliance Division and, if needed, completing the process 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 by the Compliance Risk Control Department.

- Other risks management systems
  - The internal portal combines all policy documents on risks management and control, the risks report, risks document, ICAAP documents, Bank of Israel regulations and Basel documents. This portal is used by the various risk owners at the Bank.
  - The "BINA" system, deployed in 2017 at the training center, enables monitoring of training delivery and employee learning, making professional knowledge accessible in a friendly way and thus helps (along with consistent growth in training hours delivered to employees) to reducing the risk due to missing knowledge by officers.

Reporting risk information to the Board of Directors and to management

The risks management culture at the Bank includes the set of reports by various entities which comprise the risks 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 regad to significant assumptions underlying the report, as well as any limits on risk estimates.
- Conduct 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.

Custom 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 risks 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, 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.
- ICAAP document – Internal Capital Adequacy Assessment Process (ICAAP) – this document is submitted annually to Bank management, to the Bank’s Board of Directors and to the Bank of Israel, presenting a summary of the internal process conducted by the Bank to evaluate its capital adequacy. The Bank's capital planning process, conducted over a three-year planning horizon, is designed to ensure that the Bank maintains adequate capital to support all risks associated with Bank operations, under normal conditions in line with the Bank's strategic plan and under stress events. In addition, review of the risks management and mitigation processes, which include self-assessment of risks, the quality of risks management and the direction of risks evolution by risk controllers and risk owners, as well as independent review by Internal Audit to assess the effectiveness of the Bank's internal controls framework.

Key and emerging risks

In its operations, the Bank is exposed to a succession of risks which may potentially impact its financial results and its image.

As part of the risks mapping, the Bank reviews the top risks, existing (or new) risks which may materialize over the coming 12 months which potentially may materially impact the Bank's financial results and stability, such as: credit, interest and liquidity risks. The Bank also identifies emerging risks, which may materialize over the longer term and subject to uncertainty with regard to their nature and impact on the Bank. Of these risks, one may note the following: information security and cyber risk, IT risk and reputation risk. As noted, the risks mapping is regularly reviewed to ensure that it encompasses all business operations at the Bank, market conditions and regulatory requirements.

For more information about a DPA agreement reached by the Bank and the US Department of Justice, to conclude the derivative investigation of Bank Group business with its US clients and its financial implications for these financial statements, see chapter "Strategic plan and forward-looking information" in the Report of the Board of Directors and Management, as well as Note 26.C.12 to the financial statements.

The Bank continues to upgrade the framework for handling "emerging" risks, such as compliance and regulatory risk, AML risk and cross-border risk – while allocating the required resources for addressing these risks. Note that the Bank has zero appetite for non-compliance with applicable regulatory directives of the Bank of Israel. Bank operations with regard to these risks are primarily qualitative actions designed to create the required framework for addressing these emerging risks.

For more information about handling of business risk, see chapter "Hedging and risk mitigation" above.

Overview of weighted risk assets (OV1)

	Risk weighted assets December 31, 2018	Risk weighted assets September 30, 2018	Minimum capital requirements[1] December 31, 2018
Credit risk (standard approach)[2]	136,734	134,046	18,240
Counter-party credit risk (standard approach)	2,189	1,633	292
Credit risk value adjustment (CVA)[3]	576	353	77
Amounts lower than discount thresholds (subject to 250% risk weighting)	1,073	1,063	143
Total credit risk	**140,572**	**137,095**	**18,752**
Market risk (standard approach)	1,494	1,462	199
Operational Risk[4]	9,561	9,315	1,275
Total	**151,627**	**147,872**	**20,226**

(1) This requirement includes a capital requirement at 1% of the housing loan balance as of the report date.
(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 2018 is primarily due to growth in commercial loans and in the housing loans portfolio, offset by transactions for sale of loans and credit risk conducted during the year.

For more information about links between financial statements and supervisory exposures, see Addendum B 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:

	For the year ended December 31, 2018	For the year ended December 31, 2017
Movement in credit risk assets		
Balance as of January 1	130,525	122,605
Change in credit exposure risk assets	11,798	8,224
Change in securities exposure risk assets	(508)	161
Change in derivatives exposure risk assets	431	29
Change in off-balance sheet exposure risk assets	(72)	(346)
Change in CVA	47	(107)
Regulatory changes	(1,786)	–
Other effects	137	(41)
Credit risk assets at end of period	**140,572**	**130,525**
Movement in operational risk assets		
Balance as of January 1	8,394	8,113
Change in revenues from financing operations (including commissions)	1,319	885
Change in non-interest financing revenues	(260)	(704)
Change in gross revenues of subsidiaries	108	100
Operational risk assets at end of period	**9,561**	**8,394**
Movement in market risk assets		
Balance as of January 1	1,605	1,184
Change in equity risk	2	–
Change in basis risk	2	38
Change in interest risk – general market risk	24	240
Change in options risk	(139)	143
Market risk assets at end of period	**1,494**	**1,605**

The change in risk assets in 2018 is primarily due to growth in commercial loans and in the housing loans portfolio, offset by transactions for sale of loans and credit risk conducted during the year.

Capital and leverage

Composition of capital

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

Tier I capital includes equity attributable to shareholders of the Bank and the interests 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 and adjustments with respect to liabilities for derivative instruments, due to change in the Bank's credit risk (DVA).

Additional Tier I capital consists of equity instruments which fulfill the requirements specified in the directives. As of December 31, 2018, the Bank had no equity 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.

Below is a summary of supervisory capital components, capital ratios to risk components for the Group and minimum supervisory capital ratios specified by the Supervisor of Banks(NIS in millions):

	December 31, 2018 Balance	**December 31, 2018 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III**	**December 31, 2017 Balance**	**December 31, 2017 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III**
Tier I capital before regulatory adjustments and deductions	15,272	–	14,431	81
Total regulatory adjustments to and deductions from Tier I capital	100	–	98	3
Tier I shareholders' equity	15,172	–	14,333	78
Tier II capital	5,515	1,786	5,251	2,233
Total capital	20,687	1,786	19,584	2,317
Total weighted risk assets	151,627	–	140,524	–
Ratio of Tier I capital to risk components	10.01%		10.20%	
Ratio of total capital to risk components	13.64%		13.94%	
Minimum Tier I capital ratio required by Supervisor of Banks	9.84%		9.86%	
Minimum overall capital ratio required by Supervisor of Banks	13.34%		13.36%	

For more information and detailed composition of supervisory capital, in conformity with disclosure requirements of Basel Pillar 3, as of December 31, 2018 compared to December 31, 2017, see Addendum A below.

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

	December 31, 2018	December 31, 2017
Tier I capital		
Balance as of January 1	14,333	13,318
Issuance of ordinary share capital and share premium	17	16
Change in capital reserve from benefit from share-based payment transactions	(17)	8
Net profit for the period	1,206	1,347
Dividends declared or distributed this year	(247)	(334)
Adjustments from translation of financial statements of associated companies	1	(2)
Capital reserve from securities available for sale	(45)	13
Capital reserve from cash flows hedging	–	(5)
Capital reserve with respect to employees’ rights	(26)	(85)
Others, including regulatory adjustments	(113)	11
Non-controlling interests	65	42
Deductions		
Accumulated other comprehensive income with respect to cash flows of items not listed at fair value on the balance sheet	(1)	2
Accumulated gains or losses from changes to fair value of liabilities, arising from change to the Bank's credit risk	(1)	2
Balance as of end of period	**15,172**	**14,333**
Tier II capital		
Balance as of January 1	5,251	4,888
Deduction of equity instruments	(700)	(464)
Movement in group provision for credit losses	73	33
Issue of debentures with contingent conversion	891	794
Balance as of end of period	**5,515**	**5,251**

Composition of capital

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. Also included are 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, Accounting and Financial Reporting Division (Chief Accountant) and managers of business divisions at the Bank. On-going capital planning is based on the working assumptions in the Bank's five-year strategic plan, for growth targets in both risk assets and profitability, subject to capital and leverage targets and to the dividend distribution policy

As part of application of Basel II, Pillar 2, the Bank submits annually its ICAAP document, which is the internal assessment process for risk and capital, conducted by the Bank. This process is designed to ensure that the Bank's overall capital is in line with its risk profile, with capital targets specified and with targets of the strategic plan. This is done both in the normal course of business and under stress scenarios. This pillar also includes qualitative reviews of risks management processes, risks control and corporate governance related to risks management at the Bank. In December 2018, the Bank submitted its ICAAP document for 2018 to the Bank of Israel. This document includes several chapters describing the corporate governance for risk management at the Bank, a concise qualitative and quantitative analysis of material risks to the Bank, capital targets, the current risk profile and looking forward to 2019, and developments during the year based on the risk self-assessment process and presentation of the Bank's overall risk map.

The core of this document is the internal capital planning process conducted over a three-year planning horizon, from June 30, 2018 through June 30, 2021. 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 bank portfolio as well as additional capital allocation for risks included in Pillar 1, where the Bank believes the capital allocated is insufficient and inappropriate for the Bank's risk profile. The capital allocation is calculated both for normal conditions and for stress scenarios. Stress scenarios are applied in different ways, from single-risk scenarios through systemic scenarios to threat testing. These scenarios are designed to ensure that the Bank has sufficient capital cushions to survive even holistic scenarios with a minimal likelihood of materializing. Threat scenarios are extreme events which impact all aspects of the Bank's risk profile and may impact the Bank's stability. Materialization thereof includes effects with respect to risks for which no capital was allocated in the previous stages, such as: reputation and liquidity risk. The limit set for Tier I capital ratio under a threat scenario is a minimum of 6.5%.

The outcome of this process indicates that the Bank has available capital in excess of the required capital, even after applying stress and threat scenarios, meaning that the Bank has a sufficient capital absorption cushion to face the range of risks associated with Bank operations, even under stress events.

Exercise ratio

Capital planning in the normal course of business – The Bank prepares a detailed, multi-annual capital planning forecast, taking the following into consideration: Expected growth rates of risk assets and profitability, the strategic plan, dividends distribution policy, capital targets and leverage, appropriate safety margins and other factors.

The Bank regularly monitors the actual results vs. the forecast, revises the forecast as required and reviews any necessary actions in order to achieve the specified capital targets.

The sensitivity of the Bank's capital adequacy ratio to changes in Tier I capital and risk assets is:

Change in Tier I capital by NIS 100 million would result in a change in Tier I capital adequacy ratio of 0.07%. Change in risk assets by NIS 1 billion would result in a change in Tier I capital adequacy ratio of 0.07%.

Raising of capital sources

In conjunction with the Bank’s work plan, which is set by the Board of Directors and includes growth objectives for different lines of business, an assessment is made of the impact of achieving these objectives on total risk assets for the Bank, and accordingly on its 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 be at least 13.34%. as from 2018.

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 not under the Bank's control.

For more information on issuance of CoCo contingent subordinated notes amounting to NIS 710.6 million in October 2018 and Tier II capital raised by Bank Yahav in August 2018, amounting to NIS 180 million, see chapter "Developments in financing sources" in the Report by the Board of Directors and Management.

Basel III

In late 2010, the Basel Committee adopted a new directive, known as Basel III. This directive, ther result of the recent crisis in global markets, consists of multiple amendments to the Basel II directive, including: Strengthening of capital base, increase in minimum capital ratios, specification of new benchmarks and methodologies for handling liquidity risk, reinforced methodology for handling counter-party risk (including capital allocation for this risk as part of Pillar 1), specification of the leverage ratio as a new ratio as part of risks management benchmarks, reinforcing processes for conducting stress testing and other processes designed to improve risks management and control capacity at financial institutions. According to the Committee-specified schedule, this directive has been gradually applied world-wide starting in 2013.

As from January 1, 2014, the Bank applies provisions for capital measurement and adequacy, based on Basel III provisions, as published by the Supervisor of Banks and as incorporated in Proper Conduct of Banking Business Directive s 201-211.

Below are major updates and effects of application of the directives with regard to capital adequacy measurement:

- Stricter criteria for recognizing capital components to be included under Tier I capital.
- Additional capital allocation with respect to CVA losses (Credit Value Adjustments) – losses due to revaluation at market value with respect to counter-party credit risk – In addition to a capital requirement with respect to default risk arising from counter-party credit risk under the standard approach, an additional capital allocation is required to cover the risk of potential loss which may arise from marking to market value of OTC derivatives.
- Stricter, revised criteria for recognition of debt instruments as capital instruments included under additional Tier I capital and Tier II capital. CoCo capital instruments (Contingent convertible capital instrument) include loss absorption provisions, including discontinuation of interest payments to holders of such instruments (only exists in additional Tier I capital) and principal loss absorption provisions, whereby these would be converted to shares or principal reduction should the Tier I capital ratio drop below a quantitative trigger specified, or when notice is given by the Supervisor of Banks, whereby activation of principal loss absorption provisions is required in order to maintain stability of the banking corporation, known as a Bank "non existence" event. The quantitative triggers specified for additional Tier I capital and Tier II capital are at 7% and 5%, respectively. As of December 31, 2018, the Bank had no equity instruments included in additional Tier I capital.
- Elimination of the distinction made by the previous directive, between Tier II capital types (lower Tier II and upper Tier II), so that Tier II capital is now uniform.
- Subordinated notes, recognized as Tier II capital instruments under the previous directives, no longer qualify as supervisory capital under the current directives, primarily due to lacking loss absorption provisions. Therefore, transitional provisions have been specified, whereby such instruments would be recognized as Tier II capital at 80% of their balance as of December 31, 2013, reduced annually by 10% through January 1, 2022.
- Group provision for credit losses – The amount of the group provision would be recognized as Tier II capital up to 1.25% of weighted risk assets for credit risk. On the other hand, the provision amount was added to the weighted risk assets for credit risk.
- Deferred taxes due to temporary differences – Deferred taxes due to temporary differences (and up to 10% of Tier I capital) – weighted at 250% risk weighting.

After the Supervisor of Banks issued its directives with regard to adoption of Basel III recommendations in Israel, the Bank's Board of Directors resolved, on August 14, 2013, to adopt a target for Tier I capital ratio to risk components, as of December 31, 2014 of 9% or higher – while maintaining appropriate safety margins.
On September 28, 2014, the Supervisor of Banks issued a circular updating Proper Conduct of Banking Business Directive 329, whereby the target Tier I capital ratio and the target ratio of total capital to risk components ratio would include an addition equal to 1% of the housing loan portfolio balance.
The minimum Tier I capital ratio and the minimum total equity ratio required by the Supervisor of Banks, on a consolidated basis, in conformity with data as of the reporting date, are 9.84% and 13.34%, respectively.
This target may change based on actual data for the housing loan portfolio and for total risk assets.
For more information about the dividends policy, see chapter "Summary of Bank policy on major risks and developments in 2018" above, Note 24 the financial statements and chapter "Dividends" in the Report of the Board of Directors and Management.

Leverage ratio

The Bank applies Proper Banking Conduct 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 exposure. Total exposure for the Bank is the sum of balance sheet exposures, exposures to derivatives and to securities financing transactions and off-balance sheet items.

According to the directive, banking corporations must maintain a leverage ratio of 5% or higher on a consolidated basis, as from January 1, 2018. Banking corporations which comply with the requirement upon publication of the directive may not drop below the threshold stated in the regulation. Any banking corporation which does not meet the requirements of this directive is required to increase its leverage ratio at fixed quarterly steps by January 1, 2018.
The Bank's leverage ratio, on the issue date of this directive, was higher than 5% – so that this minimum leverage ratio applies to the Bank as from the issue date of this directive.

The leverage ratio is managed as part of capital management by the capital planning and management forum.

The Bank's leverage ratio as of December 31, 2018 is 5.42%, compared to 5.48% as of December 31, 2017.

Below is information about the Bank's leverage ratio (NIS in millions):

Comparison of assets on balance sheet and exposure measurement for leverage ratio	**As of December 31, 2018**	**As of December 31, 2017**
Total assets in consolidated financial statements	257,821	239,572
Adjustments with respect to investments in banking, finance, insurance or commercial entities consolidated for accounting purposes but not within the scope of consolidation for supervisory purposes	–	–
Adjustments with respect to trust assets recognized on the balance sheet in conformity with Public Reporting Directives but not included in the exposure measurement of leverage ratio	–	–
Adjustments with respect to financial derivative instruments	1,293	1,197
Adjustments with respect to securities financing transactions	–	–
Adjustments with respect to off-balance sheet items(1)	19,390	19,474
Other adjustments	1,323	1,261
Exposure for leverage ratio	**279,827**	**261,504**

(1) Conversion of off-balance sheet exposures to equivalent credit amounts, in conformity with Basel rules for capital adequacy measurement.

Composition of exposures and leverage ratio (NIS in millions)	As of December 31, 2018	As of December 31, 2017
Balance sheet exposure		
Assets on balance sheet	255,457	237,029
Amounts with respect to assets deducted to determine Tier I capital	(87)	(87)
Total balance sheet exposure[1]	**255,370**	**236,942**
Exposure with respect to derivatives		
Cost of replacement with respect to all derivative transactions	2,465	1,326
Amounts added with respect to future potential exposure with respect to all derivative transactions	2,042	2,487
Gross-up of collateral provided with respect to derivatives, deducted from assets on the balance sheet in conformity with Public Reporting directives	–	–
Deduction of debtor assets with respect to variable cash collateral provided in conjunction with derivative transactions	–	–
Exempt central counter-party leg of commercial exposure settled by the client	–	–
Effective adjusted nominal amount of credit derivatives written	–	776
Adjusted effective nominal offsets and deduction of additions with respect to credit derivatives written	–	–
Total exposure with respect to derivatives	**4,507**	**4,589**
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	561	499
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	–	–
Exposure with respect to transactions as agent	–	–
Total exposure with respect to securities financing transactions	**561**	**499**
Other off-balance-sheet exposures		
Off-balance sheet exposure at gross nominal value	68,821	57,365
Adjustments with respect to conversion to credit equivalent amounts	(49,431)	(37,891)
Off-balance sheet items	19,390	19,474
Capital and total exposure		
Tier I capital	15,172	14,333
Total exposure	**279,827**	**261,504**
Leverage ratio		
Leverage ratio in conformity with Proper Conduct of Banking Business Directive 218	5.42%	5.48%

Annual growth in total exposures was 7.0%, compared to 7.6% growth in the entire balance sheet.

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 fulfill its obligations towards the Bank. Credit risk is a material risk to Bank operations. This risk is affected by multiple factors: Business risk due to client 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, 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 operations and therefore, credit risk is the major risk addressed by the banking system. Accordingly, the lion's share of capital allocated in Tier I is with respect 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 75% of credit activity at the Bank Group. In conformity with principles of the Bank's five-year strategic plan, issued in November 2016, the Bank strives to maintain and establish its leadership position in the retail sector and to increase focus on and expand operations of the business segments. The Bank's strategic plan has material effect on the nature of credit operations, risk level and business focus on various segments.

The credit risks management policy seeks to balance the desire to minimize risks in as much as possible against the basic objective of the Bank, to generate and maximize profit by extending credit to clients. 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 clients 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 client trading activity in derivatives and securities, which stipulates the principles for management and monitoring of Bank clients with activity involving derivatives and securities; collateral policy, which stipulates the principles required for management of client 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 client 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 client 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 three divisions, reporting to the President & CEO, as follows:

- Retail Division – This division consolidates most of the bank credit activity of individual clients, including mortgages and the activity of small business clients. Bank branches and business centers operate under this division in seven geographic regions.
- Business Banking Division – This division handles most banking activity of business clients (including from the construction and real estate sector) who are medium-sized and over.
- Finance Division – With regard to credit, the Finance Division serves private banking and international operations through private banking units in Israel and through overseas subsidiaries and affiliates.

Below is reference to the business model for various loan types:

Housing loans

Housing loans account for a significant share of all credit risk at the Bank, but this segment is still highly diversified and has a low risk level due to the following reasons:

- Extensive borrower diversification, with borrowers coming from various economic sectors.
- Borrowers coming from various economic sectors.
- Relatively low LTV ratios.
- Extensive geographic diversification of pledged properties.
- 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 reinforcements, such as guarantors for the loan, proven repayment capacity based other than on current borrower income and other diverse reinforcements.

As part of its credit risk policies, the Bank has set various restrictions on housing loan 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 limits, in total, form the Bank's risk appetite for mortgages, which is defined using multiple risk benchmarks, which apply to credit risk and concentration risk aspects at regular performance level. 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 housing loans, for which the Retail Division, the Risks Control Division and other Bank entities are responsible. This activity also includes portfolio analysis by inherent risk factors (LTV ratio, repayment ratio, geographic locaiton and other risk factors), estimation of portfolio risk using an advanced model for rating housing loans, including rating of each loan and calculation of potential loss given default, as well as conducting various stress tests to review the effect of macro-economic factors on the portfolio risk level, primarily the impact of unemployment, housing prices and interest rates.

As noted above, the Bank estimates the risk profile associated with provision of housing loans as low, due to the high level of client diversification, geographic diversification of borrowers, relatively low leverage, intensive review procedures of borrower quality and their repayment capacity, and securing credit with property as collateral.

The Bank constantly monitors the risk profile of the mortgage portfolio and its development over time, in view of the specified risk appetite. In particular, this monitoring is conducted through the Bank's quarterly risks document which is presented to and approved by Bank manage, the Board of Directors and its Risks Management Committee. Such monitoring reveals that leading risk benchmarks continue to remain relatively low. These benchmarks include: LTV ratios, repayment ratio, rate of obligo 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 2018) was 52.6% (reflecting the LTV ratio upon loan origination – see more details below). The Bank also estimates the current and "actual" LTV ratio for the portfolio, based on changes to property values, based on estimates by the Central Bureau of Statistics against the outstanding portfolio balances. These ratios are lower than the original LTV ratio, due to decrease in loan value due to current repayments and the cumulative increase in housing prices, reflected by mortgages in the portfolio. These data support the Bank's estimate that the potential for loss due to the Bank's mortgage portfolio, even under a stress scenario involving material decline in housing prices, is very low. In addition, the Bank regularly reviews its mortgage portfolio under stress conditions, including under significant change in macro-economic conditions, using multiple methodologies. The outcome of stress testing indicates that portfolio risk has decreased and that the potential impact of a severe stress event in the market is low.

Means for risk management in housing loans include:

- Underwriting process – Housing loans are reviewed and approved by a process which includes the following:
  - Criteria specified in Bank procedures, reflecting the Bank's cumulative interest in housing loans. 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 housing loans.
- 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 housing loan 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.

Organizational structure for risks management and control in housing loans:

- Underwriting and Control Department – This department has a professional, specialized staff to approve complex loans or loans for special populations. In addition, unusual cases are controlled (such as transactions between family members, high amounts etc.), with collateral in such cases reviewed by the Legal Department (in addition to being reviewed at the branch), to complement the approval of such cases, by the Underwriting and Control Department.
- Mortgage rating model – Models for quantifying the probability of default (PD) and the loss given default (LGD) for the mortgage population.
- The National Review Center of the Retail Division – Loan files are sent to this Center prior to origination. These files are reviewed by the Center, in order to verify that the branch did carry out the actions required according to Bank procedures, regulations and instructions of the loan approver.
- Mortgage Management Department of the Retail Division – This department handles different events which occur during the loan term.
- Collection Department – Handles debts collection from borrowers in arrears and realization of properties.
- Arrears Forum – The Forum specifies targets for debts processing and for reducing arrears.
- Legal Division – As part of the underwriting process, collateral for non-standard loans and for high-value loans are reviewed.
- Risks Control Division – The Risks Control Division monitors the quality of the Bank's loan portfolio and the evolution of the Bank portfolio's risk profile, in view of the specified risk appetite and applies stress testing to the Bank mortgage portfolio.
- Credit risks and credit concentration monitoring forum – This forum handles issues such as review and recommendation of updates to the credit policy, including changes to the risk appetite, updates to methodologies for credit risk management and validation of models for estimating credit risk and other matters relevant to risk management.
- Internal Audit – The work plan for Internal Audit with regard to housing loans includes, inter alia, reference to review of entities involved in loan approval, origination, administration and control.

Construction and real estate loans

Credit operations in this area are managed by the Business Division and are a significant component of the credit operations in this division, as well as on a smaller scale by the Retail Division. Construction financing in this industry is focused mainly on residential construction in areas with strong demand in central Israel at mid-level prices. In addition, the financing is allocated between geographic regions, based inter alia on relevant demand. In providing credit for construction, the Bank focuses on the financial support method (closed assistance). 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 also sets policies and rules for financing other real estate transactions, such as financing for rental properties, Construction, purchase groups, urban renewal, National Zoning Plan 38 etc.

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 design, 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 operations in the construction and real estate sector of the Business Division include:

Assistance for project construction under Closed Assistance method – A construction project is a process which includes all required actions for construction and (physical and legal) delivery of the building and all units therein to buyers of rights therein.
For financing projects under the Closed Assistance method, the Bank uses the financial assistance method. This method is based on strong involvement of the financing provider in the project, including control over the financial management of the project and routing funds for payment for uses required for project construction. The approach includes control over sources and uses for the specific project, separated from all other projects being constructed by the relevant developer. This allows the assisting bank to constantly monitor the progress of construction and sales, analyzing the risk associated with the project at each stage, so as to reduce the project risk. According to this approach, the Bank reserves the right to complete the project in case of default (replacing the developer) and to deliver the apartments to buyers.
In general, the Bank reduces risk by applying controls and protection factors to reflect stress scenarios, applies to each project assisted by the Real Estate Sector on regular basis.

Urban renewal – Urban renewal is a process which generally takes place in older parts of the city, where buildings and infrastructure are in inferior condition. This process allows for renewal and refurbishment of one building or multiple adjacent buildings. The Bank operates two tracks in this regard:

- Eviction-construction track – In this track the existing, old compound is demolished and replaced by newly constructed buildings. In this track, tenants sign an agreement with the developer, which typically provides them with a more spacious apartment. In actual fact, the developer constructs more apartments than existed before, and the additional apartments are sold on the free market. Note that the eviction-construction track is also available under National Zoning Plan 38. In such case, the old building is demolished and replaced by a newly constructed building. The new building includes additional residential units, compared to the old one, which the developer sells on the free market.
- National Zoning Plan 38 – This is a plan for reinforcement of buildings against earthquakes damage, approved by the Government in 2005. This plan is designed to reinforce buildings constructed prior to 1980, and offers additional benefits. This track may be used in multiple ways: Reinforcing the existing building only, reinforcing the existing building and expansion of existing apartments, reinforcing the building and adding up to 2 additional floors (to be sold by the developer), as well as other ways.

Given these unique features, custom guidelines were specified for financing such projects.

Purchase groups – A purchase group is a group of individuals or companies, joining forces to acquire land together and to commission construction services for construction of residential units and/or commercial space on such land. Alternatively, this method allows existing land owners to join forces for joint construction, by commissioning construction services for construction of residential units and/or commercial space.

Rental property – This is a property that may be leased to obtain a fixed income flow from rent payments. Investment in and purchase of rental property is based on the use of financial leverage, which allows the investor to accumulate assets using equity that is low relative to the overall investment. In order to reduce risk, the Bank has specified rules with regard to financial robustness / financial wealth, property location, credit term, repayment schedule, loans with a bullet component (partial grace period – deferment of principal only), LTV ratio, repayment capacity and other rules.

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 client'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 client activity on the capital market through the Bank:

- Credit risk for the Bank, arising from client transactions or from the client portfolio composition, which may result in exposures which the client 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 clients 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.

Clients engaged in speculative trading – The Bank allows exposure by clients 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 clients, including on aggregate.

In conformity with Proper Conduct of Banking Business Directive n 330 concerning management of client trading activity on the capital market, the Bank has specified an aggregate exposure limit for capital market clients, including an aggregate exposure limit for clients with significant speculative activity. The exposure to credit risk inherent in trading activity of clients 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 business credit operations in multiple segments, primarily: large businesses, medium businesses, small businesses and households. 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.

Credit for medium and large businesses

Credit for large and medium businesses is managed by the corporate sector, real estate sector and business sector of the Business Division.
The Corporate Sector of the Business Division is tasked with client management and activity with existing clients with a very large business volume. The Sector operates through five business departments, each with its own sector specialization.
The Real Estate Sector of the Business Division handles clients mostly engaged in the real estate sector, specializing in providing services unique for this sector, as described above.
The Business Sector of the Business Division handles business clients with medium business volume. This sector operates through three geographic business centers (North, Center and South), supported by the underwriting center, which handles and coordinates all credit applications for existing and new clients.
The division control functions, operating on behalf of the Manager of the Business Division, are responsible for identification, assessment, measurement, monitoring, mitigation and reporting of risks 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 Business 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 Business Division Headquarters Sector of the Business Division – responsible for control at the Business Division on several levels:
    - The division control function controls credit to clients of the Business 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 clients, including based on information external to the Bank. The Department is responsible for control over banking 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 clients specified in advance by the Business Division or by the various credit committees, for compliance with covenants and facilities.

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 client 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.

Credit for small businesses and individuals

The commercial banking sector of the Retail Division is in charge of credit for small businesses and households (except for mortgages). In this role, the sector guides the regions and branches with regard to credit operations for the relevant populations, subject to the Bank's credit policy and procedures. The Commercial Banking Sector also manages two unique products:

- Government-backed fund for small and medium businesses – The sector specifies the work processes and coordinates credit applications for the Government-backed fund for small and medium businesses (and as from January 2019, also the new Government-backed fund for improved energy efficiency), with branches extending and operating such loans.
- Credit cards – The Sector manages the credit card products issued by branches, including with regard to regulatory aspects, IT, procedures, work procedures and interfaces with credit card companies.

The Sector management operates a division control function, which conducts credit control at the Division level and provides guidance for control at branches, by regional credit controllers. The Division control function is also responsible for coordinating the Watch List Forum, to discuss accounts of Retail Division clients with risk characteristics, based on pre-determined risk-oriented parameters.

As from mid 2018, most clients of the Retail Division are rated using advanced custom models. These models quantify the probability of default (PD) and the loss given default (LGD) for small businesses and individual clients of the Retail Division.

The Bank has deployed the MADHOM system, which presents branches and headquarters with the current client rating, changes to rating and lateral and historical analysis. This system, and in particular the credit rating which is regularly revised, is a significant supporting tool for credit management. Furthermore, the risk appetite is specified for the entire portfolio, in terms of average rating by these models.

Loans to small businesses

The micro and small business segment is highly diversified in terms of clients 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 flows, 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.

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 client 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 / clients 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 restrictions for activities 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.

Loans to individuals

The household segment is a key growth engine and a significant component of the Bank's strategic plan for 2017-2021.

The individual client segment is highly diversified – by number of clients and by geographic location. Most clients 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 clients who face difficulties.
Credit policies and work procedures with regard to extending credit, including to individual clients, include directives and guidelines with regard to credit underwriting and adapting credit to client needs and repayment capacity: Review of credit objective, requested LTV, loan term, analysis of client's repayment capacity and repayment sources, for all of their indebtedness. This includes review of various economic parameters of the client based, *inter alia*, on the client's regular income, pledged or unencumbered savings, knowledge of the client and past experience working with the client. There are also custom procedures and work processes with regard to proactive offer of credit to individual clients, in conformity with Bank of Israel directives.
Credit pricing for the client is based on the client risk assessment, that includes the aforementioned parameters.
The Bank regularly monitors the risk level in the credit portfolio for individuals using, *inter alia*, the internal credit rating model for individual clients, monitoring and analysis of expenses with respect credit losses.

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 client trading activity in derivatives and securities, which stipulates the principles for management and monitoring of Bank clients with activity involving derivatives and securities; collateral policy, which stipulates the principles required for management of client 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 Supreme 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 Supreme Credit Committee, headed by the Bank President & CEO, is the most senior forum for credit approval at the Bank. The Credit Risk Manager is the Manager, Business 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 Bank resilience 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 clients in various operating segments divided among different divisions (Retail, Business, Finance) 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 client segments are responsible for regularly verification, monitoring and control of exposure to clients and operating segments for which they are responsible. This line of defense includes specific control units, such as division controllers, control over clients 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 clients, as part of the credit approval process.

  Accounting and Financial 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 statutory provisions and legislative changes that impact 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 client, 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 client, primarily verifying that the requested credit is in fact appropriate for client 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 client 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 client quality: borrower payment ethic, quality of owners and management. Business scope, sector situation, borrower standing in the sector, profitability, financial robustness 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 client and to the borrower group and profitability for the Bank at these levels.
- Specification of business terms and conditions, such as: interest rate, fees 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 client profitability.
- Decision.

Reports to management and to the Board of Directors

The Bank has specified two limit types for most of these areas. One is the Board of Directors' limit and the other – the management limit, based on 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. Management limits may be modified by the Bank's Supreme 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.

Reporting about monitoring of 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.

No deviation from the Board of Directors' limits is allowed, without prior written consent of the Board of Directors or of a Board committee.

Credit quality of credit exposures (CR1)

December 31, 2018	Gross balances(1) Impaired or in arrears 90 days or longer	Gross balances(1) Others	Provisions for credit losses	Net balance
Debt other than debentures	2,417	235,833	1,579	236,671
Debentures	–	10,701	–	10,701
Off-balance sheet exposure(2)	72	68,749	98	68,723
Total	**2,489**	**315,283**	**1,677**	**316,095**

December 31, 2017	Gross balances(1) Impaired or in arrears 90 days or longer	Gross balances(1) Others	Provisions for credit losses	Net balance
Debt other than debentures	1,859	220,264	1,485	220,638
Debentures	–	9,825	–	9,825
Off-balance sheet exposure(2)	71	58,756	90	58,737
Total	**1,930**	**288,845**	**1,575**	**289,200**

(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).

For more information about balances and analysis of changes to impaired debt, see chapter "Credit" in the 2018 Report of the Board of Directors and Management.

Below are details of the provision for credit losses with respect to housing loans for which a minimum provision for credit losses was made by extent of arrears, as of December 31, 2018, in accordance with appendix to Proper Conduct of Banking Business Directive 314. (NIS in millions):

Extent of arrears

	In arrears 30 to 89 days[(1)]	In arrears 90 days or longer 90 days to 6 months	6-15 months	15-33 months	In arrears 90 days or longer Over 33 months	In arrears 90 days or longer Total over 90 days	Balance with respect to refinanced loans in arrears[(2)]	Total
Amount in arrears	8	21	16	13	198	248	40	296
Of which: Balance of provision for interest[(3)]	–	–	–	1	109	110	6	116
Recorded debt balance	505	688	271	80	130	1,169	88	1,762
Balance of provision for credit losses [(4)]	–	–	35	40	86	161	42	203
Debt balance, net	**505**	**688**	**236**	**40**	**44**	**1,008**	**46**	**1,559**

(1) In conformity with Public Reporting Directives, excludes the balance of housing loans in arrears up to 2 months.

(2) Loans for which an agreement was signed for repayment of arrears by borrower, where a change was made in the repayment schedule for the loan balance not yet due.

(3) With respect to interest on amounts in arrears.

(4) Excludes balance of provision for interest.

For more information about movement in balance of the provision for credit losses and details of credit exposures which have been restructured, see Note 30 to the 2018 financial statements.

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 special 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 Business Division and in the Retail Division. Identified clients are handled by the Special Client Sector of the Business Division (first line).

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 regional management and to special headquarter units, to conduct a structured, independent control process. The Chief Accountant forms a second line in the classification and provision setting process; he is responsible, in conformity with Proper Conduct of Banking Business 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 impaired 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, impaired debt or debt in restructuring, as required.

Identification of housing loans (mortgages) with risk attributes is automated by identifying criteria for arrears and other qualitative criteria. In early stages of arrears, the Bank mostly applies automated collection processes. Later on, the Bank applies proactive processes, both internal and external, including legal proceedings, if needed.

Identification and classification of problematic debts – The Bank classifies all problematic debts and problematic off-balance sheet credit items under: special supervision, inferior or impaired. Debt under special supervision is debt with potential weaknesses, which require special attention by Bank management. Should these weaknesses not be addressed, the likelihood of debt repayment may deteriorate. 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.

In conformity with Bank policy, debt in excess of NIS 700 thousand is classified as impaired when, based on current information and events, it is expected that the Bank will be unable to collect all amounts due pursuant to contractual terms of the debt contract. In any case, debt in excess of NIS 700 thousand is classified as impaired when its principal or interest is in arrears over 90 days,

unless the debt is well secured and is in collection proceedings. Further, any debt whose terms and conditions have been changed in conjunction with restructuring of problematic debt would be classified as impaired debt, unless prior to and following such restructuring, a provision for credit losses by extent of arrears was made with respect to the debt pursuant to the appendix to Proper Conduct of Banking Business Directive 314 on problematic debt in housing loans.
Debt under NIS 700 thousand in arrears 90 days is assessed on a Group basis and in such case, is classified as inferior debt.

Decisions with regard to debt classification are made based, *inter alia*, on assessment of the borrower's financial standing and repayment capacity, any 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.

Provision for credit losses – 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 robustness 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.
The decision about the amount of provision for credit losses is derived from the quality of credit and collateral, the financial and legal standing of the borrower and guarantors, as well as environmental and sector conditions in the client environment.
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, an appropriate provision to cover expected credit losses with regard to off-balance sheet credit instruments (such as: commitments to provide credit, unutilized credit facilities and guarantees).
The required provision to cover expected credit losses from the credit portfolio is estimated under one of the following tracks: "individual provision" or "group provision". Further, the Bank reviews the overall appropriateness of the provision for credit losses. Such review of debts in order to determine the provision and debt handling is consistently applied to all debts in excess of NIS 700 thousand and in conformity with the Bank's credit management policy – and no transition is made, during the debt term, between the individual review track and the group-based review track – unless in case of restructuring of problematic debt, as noted above.
For more information about individual provision, group-based provision, provision with respect to housing loans and provision with respect to off-balance sheet credit, see Note 1 to the 2018 financial statements.

Debt restructuring and treatment of problematic debt in restructuring – In general, when it is possible to reach agreement on debt repayment with no impact to collateral available to the Bank and without any legal action, the Bank gives preference to reaching agreement on debt repayment.

In order to improve collection and to avoid, in as much as possible, debt collection default – the Bank makes attempts to reach agreements on debt repayment prior to taking legal action or even during and after taking such action, which may include: Delay of repayment, restructuring of debt repayment, reduced interest rates, changes to repayment schedule, changes to terms and conditions of the debt in order to align it with the borrower's financing structure, debt consolidation for the borrower, transfer of debt to other borrowers in a borrower group under joint control, review of financial covenants imposed on the borrower etc.

Debt which has been formally restructured as problematic debt 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 and conditions of the debt, designed to make it easier for the debtor to make cash payments in the near term (reduction or postponement of cash payments due from the debtor), or by way of receiving other assets as debt repayment (in whole or in part).

In order to determine whether a debt arrangement executed by the Bank constitutes problematic debt restructuring, the Bank conducts a qualitative review of all terms of the arrangement and the circumstances under which it was made 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.

Credit Risk[(2)] by Economic Sector – Consolidated

As of December 31, 2018

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

	Total credit risk[(1)] Total	Credit performance rating[(5)]	Problematic[(6)]	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Total	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Debts	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Problematic[(6)]	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Impaired	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Credit losses[(4)] Expenses with respect to credit losses	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Credit losses[(4)] Net accounting write-offs	Off balance sheet debts[(2)] and credit risk (other than derivatives)[(3)] Credit losses[(4)] Balance of provision for credit losses
Borrower activity in Israel										
Public – commercial										
Agriculture, forestry and fishing	817	805	12	817	619	12	6	1	1	8
Mining and excavation	704	703	1	658	414	1	–	–	–	4
Industry and production	9,977	9,555	422	9,717	5,760	422	279	33	18	126
Construction and real estate – construction[(7)]	30,901	30,604	297	30,900	14,191	297	203	(1)	(8)	160
Construction and real estate – real estate operations	3,201	3,161	40	3,190	2,819	40	26	(1)	(4)	53
Electricity and water delivery	1,852	1,826	26	1,607	927	26	2	4	2	9
Commerce	11,010	10,663	347	10,923	8,126	347	234	74	44	181
Hotels, dining and food services	1,294	1,246	48	1,294	1,004	48	23	12	10	28
Transport and storage	1,476	1,456	20	1,452	1,059	20	7	5	8	10
Information and communications	1,150	1,130	20	1,137	612	20	11	4	2	9
Financial services	11,954	11,774	180	9,006	4,272	180	168	6	5	70
Other business services	4,462	4,379	83	4,389	3,068	83	43	19	18	52
Public and community services	2,583	2,553	30	2,558	2,104	30	21	4	1	15
Total commercial	**81,381**	**79,855**	**1,526**	**77,648**	**44,975**	**1,526**	**1,023**	**160**	**97**	**725**
Private individuals – housing loans	135,960	134,650	1,310	135,960	126,673	1,310	60	36	22	643
Private individuals – other	30,245	29,752	233	29,969	19,473	233	77	109	91	263
Total public – activity in Israel	**247,586**	**244,257**	**3,069**	**243,577**	**191,121**	**3,069**	**1,160**	**305**	**210**	**1,631**
Banks in Israel	1,199	1,199	–	685	622	–	–	–	–	–
Government of Israel	8,651	8,651	–	1	1	–	–	–	–	–
Total activity in Israel	**257,436**	**254,107**	**3,069**	**244,263**	**191,744**	**3,069**	**1,160**	**305**	**210**	**1,631**
Borrower activity overseas										
Total public – activity overseas	6,324	6,304	20	6,095	4,835	20	5	2	(2)	42
Overseas banks	6,607	6,607	–	4,952	4,846	–	–	3	–	4
Overseas governments	2,490	2,490	–	628	628	–	–	–	–	–
Total activity overseas	**15,421**	**15,401**	**20**	**11,675**	**10,309**	**20**	**5**	**5**	**(2)**	**46**
Total	**272,857**	**269,508**	**3,089**	**255,938**	**202,053**	**3,089**	**1,165**	**310**	**208**	**1,677**

(1) On- and off-balance sheet credit risk, including with respect to derivative instruments (NIS in millions): Debts[(2)] – 202,053; debentures – 10,988; securities borrowed or acquired in conjunction with resale agreements – 26; Assets with respect to derivative instruments – 3,240; and Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower indebtedness limits – 56,550.

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

(3) Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower lending limits, except for derivative instruments.

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

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

(6) On- and off-balance sheet credit risk which is impaired, inferior or under special supervision, including with respect to housing loans for which a provision was made by extent of arrears, and housing loans for which no provision was made by extent of arrears and which are in arrears of 90 days or longer.

(7) Includes on-balance sheet credit risk amounting to NIS 2,023 million and off-balance sheet credit risk amounting to NIS 2,241 million, provided to certain purchase groups in the process of construction and includes off-balance sheet credit risk amounting to NIS 4,794 million for which insurance has been acquired to cover the portfolio of Sale Law guarantees and performance guarantees pursuant to the Sale Law from international re-insurers.

Credit Risk[(2)] by Economic Sector – Consolidated – continued

As of December 31, 2017

	Total credit risk[1] Total	Credit perfor-mance rating[5]	Proble-matic[6]	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Total	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Debts	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Proble-matic[6]	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Impai-red	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Credit losses[4] Expenses with respect to credit losses	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Credit losses[4] Net account-ting write-offs	Off balance sheet debts[2] and credit risk (other than derivatives)[3] Credit losses[4] Balance of provision for credit losses
Borrower activity in Israel										
Public – commercial[8]										
Agriculture, forestry and fishing	817	809	8	815	615	8	4	2	2	8
Mining and excavation	630	630	–	570	376	–	–	(1)	(1)	4
Industry and production	8,629	8,353	276	8,457	4,994	276	127	34	15	111
Construction and real estate – construction[7]	29,226	28,844	280	29,218	11,856	280	201	4	(16)	153
Construction and real estate – real estate operations	3,038	3,018	20	3,020	2,475	20	15	(64)	(53)	50
Electricity and water delivery	1,402	1,372	30	1,138	609	30	3	3	–	7
Commerce	9,956	9,675	281	9,819	7,549	281	213	49	99	151
Hotels, dining and food services	1,190	1,144	46	1,190	933	46	19	15	9	26
Transport and storage	2,081	2,061	20	2,071	1,739	20	10	10	6	13
Information and communications	1,070	1,055	15	1,065	499	15	7	1	2	7
Financial services	10,395	10,193	202	8,252	3,442	202	15	(37)	(9)	69
Other business services	3,860	3,769	91	3,795	2,783	91	41	23	14	51
Public and community services	2,316	2,284	32	2,180	1,764	32	24	6	2	12
Total commercial	**74,610**	**73,207**	**1,301**	**71,590**	**39,634**	**1,301**	**679**	**45**	**70**	**662**
Private individuals – housing loans	126,273	125,169	1,104	126,273	120,189	1,104	33	24	9	629
Private individuals – other	28,728	28,163	221	28,507	18,812	221	71	123	86	245
Total public – activity in Israel	**229,611**	**226,539**	**2,626**	**226,370**	**178,635**	**2,626**	**783**	**192**	**165**	**1,536**
Banks in Israel	1,372	1,372	–	316	213	–	–	(1)	–	–
Government of Israel	9,099	9,099	–	1	1	–	–	–	–	–
Total activity in Israel	**240,082**	**237,010**	**2,626**	**226,687**	**178,849**	**2,626**	**783**	**191**	**165**	**1,536**
Borrower activity overseas										
Total public – activity overseas	5,542	5,538	4	5,389	3,967	4	3	1	1	38
Overseas banks	3,714	3,714	–	2,000	1,874	–	–	–	–	1
Overseas governments	1,450	1,450	–	455	455	–	–	–	–	–
Total activity overseas	**10,706**	**10,702**	**4**	**7,844**	**6,296**	**4**	**3**	**1**	**1**	**39**
Total	**250,788**	**247,712**	**2,630**	**234,531**	**185,145**	**2,630**	**786**	**192**	**166**	**1,575**

(1) On- and off-balance sheet credit risk, including with respect to derivative instruments (NIS in millions): Debts[2] – 185,145; debentures – 10,034; securities borrowed or acquired in conjunction with resale agreements – 76; Assets with respect to derivative instruments – 3,421; and Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower indebtedness limits – 52,112.

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

(3) Credit risk of off-balance-sheet financial instruments as calculated for the purpose of determining per-borrower lending limits, except for derivative instruments.

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

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

(6) On- and off-balance sheet credit risk which is impaired, inferior or under special supervision, including with respect to housing loans for which a provision was made by extent of arrears, and housing loans for which no provision was made by extent of arrears and which are in arrears of 90 days or longer.

(7) Includes on-balance sheet credit risk amounting to NIS 1,571 million and off-balance sheet credit risk amounting to NIS 1,478 million, provided to certain purchase groups in the process of construction and includes off-balance sheet credit risk amounting to NIS 5,237 million for which insurance has been acquired to cover the Sales Act guarantee portfolio from international re-insurers.

(8) Reclassified.

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

As of December 31, 2018

	Up to 1 year	1-5 years	Over five years	Without maturity	Total
On-balance sheet credit exposure:					
Commercial	30,717	15,404	2,927	–	49,048
Private individuals – housing loans	16,620	39,273	114,760	–	170,653
Private individuals – other	8,107	7,759	3,297	197	19,360
Assets with respect to derivative instruments (1)	2,495	1,119	54	–	3,668
Total public	**57,939**	**63,555**	**121,038**	**197**	**242,729**
Banks and governments	3,613	1,599	705	–	5,917
Total credit exposure on balance sheet	**61,552**	**65,154**	**121,743**	**197**	**248,646**
Of which: Debentures	3,363	6,706	1,509	80	11,658
Total off-balance sheet credit exposure	**54,568**	**11,468**	**2,785**	**–**	**68,821**

As of December 31, 2017

	Up to 1 year	1-5 years	Over five years	Without maturity	Total
On-balance sheet credit exposure:					
Commercial	26,488	14,127	2,590	–	43,205
Private individuals – housing loans	11,637	37,245	107,361	–	156,243
Private individuals – other	7,644	7,519	2,827	183	18,173
Assets with respect to derivative instruments (1)	1,644	1,420	54	–	3,118
Total public	**47,413**	**60,311**	**112,832**	**183**	**220,739**
Banks and governments	1,952	278	294	–	2,524
Total credit exposure on balance sheet	**49,365**	**60,589**	**113,126**	**183**	**223,263**
Of which: Debentures	2,951	2,720	2,668	93	8,432
Total off-balance sheet credit exposure	**48,727**	**8,322**	**316**	**–**	**57,365**

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

Exposure to Foreign Countries – Consolidated[(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):

Country	Balance sheet exposure(2) Cross-border balance sheet exposure To governments(4)	Balance sheet exposure(2) Cross-border balance sheet exposure To banks	Balance sheet exposure(2) Cross-border balance sheet exposure To others	Balance sheet exposure of Bank affiliates in foreign country to local residents Balance sheet exposure before deduction of local liabilities	Balance sheet exposure of Bank affiliates in foreign country to local residents Deduction with respect to local liabilities	Balance sheet exposure of Bank affiliates in foreign country to local residents Net balance sheet exposure after deduction of local liabilities	Total balance sheet exposure	On-balance sheet problematic credit risk	Impaired debts	Off-balance sheet exposure(2)(3)(5) Total off-balance sheet exposure	Off-balance sheet exposure(2)(3)(5) Of which: Off-balance sheet problematic credit risk	Off-balance sheet exposure(2)(3)(5) Cross-border balance sheet exposure Maturing in under 1 year	Off-balance sheet exposure(2)(3)(5) Cross-border balance sheet exposure Maturing in over 1 year
December 31, 2018													
USA	4,938	157	1,544	396	396	–	6,639	23	–	519	–	3,465	3,174
France	–	1	1,383	–	–	–	1,384	18	–	2,092	–	39	1,345
UK	–	122	784	1,616	389	1,227	2,133	13	–	1,182	–	184	722
Germany	186	14	121	–	–	–	321	–	–	2,651	–	68	253
Other	(6)354	141	2,023	–	–	–	2,518	16	–	1,105	–	629	1,889
Total exposure to foreign countries	**5,478**	**435**	**5,855**	**2,012**	**785**	**1,227**	**12,995**	**70**	**–**	**7,549**	**–**	**4,385**	**7,383**
Of which: Total exposure to LDC countries	11	–	422	–	–	–	433	5	–	130	–	114	319
To Greece, Portugal, Spain and Italy	–	1	34	–	–	–	35	–	–	66	–	4	31
December 31, 2017													
USA	3,231	336	1,239	368	368	–	4,806	15	–	654	–	1,532	3,274
France	–	142	1,295	–	–	–	1,437	21	–	2,565	–	210	1,227
Germany	172	61	98	–	–	–	331	–	–	2,999	–	106	225
Other	54	338	2,325	1201	482	719	3,436	23	–	1,661	–	930	1,787
Total exposure to foreign countries	**3,457**	**877**	**4,957**	**1,569**	**850**	**719**	**10,010**	**59**	**–**	**7,879**	**–**	**2,778**	**6,513**
Of which: Total exposure to LDC countries	11	–	535	–	–	–	546	6	–	149	–	125	421
To Greece, Portugal, Spain and Italy	–	3	43	–	–	–	46	1	–	66	–	14	32

(1) Based on final risk, after effect of guarantees, liquid collateral and credit derivatives.
(2) 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.
(3) 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 n 313.
(4) Governments, official institutions and central banks.
(5) The balance of off-balance sheet exposure includes NIS 4,794 million with respect to acquiring insurance from international reinsurers for the portfolio of Sales Act guarantees for borrowers in the real estate sector in Israel. (As of December 31, 2017: NIS 5,237 million).For more information about revision of the Credit Conversion Factor (CCF) applied to guarantees to secure investments by apartment buyers pursuant to the Sale Act. See Note 25 to the financial statements.
(6) Includes exposure to Multi-party Development Banks (MDB).

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).

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, 2018 Balance sheet exposure	December 31, 2018 Off-balance sheet exposure	December 31, 2017 Balance sheet exposure	December 31, 2017 Off-balance sheet exposure
UK	–	–	1,343	687

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

As of December 31, 2018 and December 31, 2017, the Bank has no balance sheet exposure to foreign countries facing liquidity issues.
And to foreign countries which have been restructured.

Credit risk mitigation (CRC)

Qualitative disclosure requirements with regard to credit risk mitigators

The Bank Group takes different actions to mitigate risks associated with extending credit and with credit concentration. Below is a description of tools applied by the Bank Group 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 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.

A banking corporation should not offset assets with respect to derivative instruments against liabilities with respect to derivative instruments, unless all of the aforementioned conditions are fulfilled. However, the directives stipulate that under certain conditions, a banking corporation may offset fair value amounts recognized with respect to derivative instruments and fair value amounts recognized with respect to the right to call cash collateral (receivables) or the commitment to reimburse cash collateral (payables) arising from derivative instruments transacted with the same counter-party in accordance with a master netting arrangement – even if there is no intention to repay on net basis or concurrently.

Moreover, a banking corporation may offset securities purchased in conjunction with repurchase agreements against securities sold in conjunction with repurchase agreements, if certain conditions specified in US GAAP on this matter are fulfilled.

However, the banking corporation may not offset amounts on the balance sheet without prior approval of the Supervisor of Banks.

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 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 client, in case of insolvency. The quality and extent of collateral required from the client is determined based on the basic borrower attributes, transaction attributes and materiality of the risk of the client being unable to repay the credit. The higher the risk, the larger and more liquid collateral required by the Bank. In general, clients 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 client 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 client 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 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.

In general, when an asset is received as collateral, the Bank only takes into account a certain percentage of the asset value as collateral ("safety factor"). The safety factor is the multiplier of the asset value used to obtain the asset value as collateral for the Bank. An appropriate safety factor was assigned to each collateral type, based on parameters such as: Negotiability and ability to realize the collateral, time and cost required to realize, collateral price volatility, legal status / recording form of the collateral and ownership thereof, and the ability of any third party to impose limits on realization of such collateral.

Bank procedures specify rules for ongoing collateral management, including updates to the value of collateral: Deposits and bank guarantees are regularly updated based on their terms and conditions ; collateral consisting of negotiable securities is regularly updated based on their market value ; with regard to collateral consisting of real estate, the procedure determines the date for valuation by a licensed assessor in accordance with the type of credit secured by the property. This assessment is validated in cases specified in Bank policies, by the Bank's internal assessment unit. Valuation is also carried out in case of concern regarding material impairment of the collateral, which may cause the Bank to face shortage of collateral.

The Bank makes extensive use of collateral not recognized under credit mitigation rules of Basel II (real estate, liens on automobiles, personal guarantees) in order to mitigate credit risk.

Guarantors – Sometimes, the Bank requires clients 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. Selling / sharing risk is possible by way of outright sale or by way of sharing the risk. This activity is led by the Syndication Unit of the Business Division.

On December 28, 2016, the Bank acquired an insurance policy for credit exposure due to guarantees provided by the Bank pursuant to the Sale Act (Apartments) (Securing Investments of Home Buyers), 1974 and obligations to issue such guarantees.

The insurance policy provides the Bank with coverage should the Bank be required to pay due to forfeiture of the guarantees; it is primarily intended to reduce risk assets with respect to credit exposure due to these guarantees.

In the second quarter of 2018, the Bank increased the coverage ratio of the insurance policy from 80% to 90% for guarantee amounting to NIS 15.5 billion.

In the third quarter, the Bank purchased a rider to the existing insurance policy, so that it would also apply to other types of guarantees associated with projects, amounting to NIS 1.8 billion.

The aforementioned insurance policies apply to guarantees issued by the Bank through 2018.

In the fourth quarter of 2018, the Bank obtained an insurance policy with 90% coverage for credit exposures with respect to guarantees to be issued by the Bank as from January 2019, in conformity with the Sale Law and other project-related guarantees, similar to the insurance policies described above.

The insurance policy was primarily acquired in order to reduce risk assets with respect to credit exposure arising from such guarantees, in conformity with Proper Conduct of Banking Business Directive 203 "Capital measurement and adequacy".

Risks diversification – The Bank's credit policies are based on diversification and controlled management of risks.

Risks diversification is characterized by several aspects:

- Diversification of the loan portfolio among the different economic sectors, including limiting exposure in certain sectors.
- Diversification of size groups of clients.
- Restrictions on exposure to specific operating segments and to total overseas activity of borrowers.
- Restrictions on exposure to individual borrowers and borrower groups.
- Geographic diversification where relevant (construction industry, mortgages).

Economic sectors – The Bank's Executive Management and Board of Directors hold discussions on the issue of credit to certain industrial sectors, as is necessary, mainly as it relates to industries that are sensitive to fluctuations in business cycles. Credit policies for the sensitive industries are set on the basis of an economic analysis of the developments forecast for these industries. The Bank maintains distribution of indebtedness among different sectors, so as not to create exceptional indebtedness according to provisions of Proper Conduct of Banking Business Directive 315. Loans to certain sectors, such as diamonds, construction (including their sub-sectors) – are handled by professional units or by personnel specializing in these industries. Specific rules and procedures have been prescribed for these specific sectors, beyond those relating to the issue of credit, in order to deal with their special credit risks. In the diamond sector, the Bank prefers to require collateral external to the sector, in order to mitigate and hedge the credit risk.

Major clients – The Bank provides credit to large clients through the Corporate sector, which operates teams with sector expertise. Occasionally the Bank limits its share of credit to a major client relative to total extent of credit to that client in the banking system, and in some cases, in order to participate in financing of certain transactions, the Bank requires a financing package to be put in place with participation of other banks (under consortium agreements). The Bank strictly complies with limits on indebtedness of a borrower and a group of borrowers, as well as on total indebtedness of major borrowers and groups of borrowers whose net indebtedness to the Bank exceeds 10%, pursuant to Proper Conduct of Banking Business Directive 313.

Geographic diversification – The Bank strictly maintains geographic diversification with regard to credit for construction and mortgages, in order to reduce over-concentration in extending credit.

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 clients. 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 clients, when securities form a significant element of their collateral.

Credit risk mitigation – housing

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's 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. In some cases, the Bank demands guarantors for the debt, in addition to property collateral.

Insurance – According to Bank procedures, 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 robustness.

Credit risk mitigation methods (CR3)

As of December 31, 2018

	Unsecured Total on-balance sheet balance[1]	Secured Total on-balance sheet balance[1]	Secured Of which: Secured amount[2]	Secured Of which: By collateral Balance sheet balance	Secured Of which: By collateral Of which: Secured amount	Secured Of which: By financial guarantees Balance sheet balance	Secured Of which: By financial guarantees Of which: Secured amount	Secured Of which: By credit derivatives Balance sheet balance	Secured Of which: By credit derivatives Of which: Secured amount
Debt other than debentures	214,047	24,203	8,870	18,994	7,845	5,209	1,024	–	–
Debentures	10,701	–	–	–	–	–	–	–	–
Total	**224,748**	**24,203**	**8,870**	**18,994**	**7,845**	**5,209**	**1,024**	**–**	**–**
Of which: Accruing interest revenues, in arrears 90 days or longer	2,220	269	89	154	24	124	65	–	–

As of December 31, 2017

	Unsecured Total on-balance sheet balance[(1)]	Secured Total on-balance sheet balance[(1)]	Secured Of which: Secured amount[(2)]	Secured Of which: By collateral Balance sheet balance	Secured Of which: By collateral Of which: Secured amount	Secured Of which: By financial guarantees Balance sheet balance	Secured Of which: By financial guarantees Of which: Secured amount	Secured Of which: By credit derivatives Balance sheet balance	Secured Of which: By credit derivatives Of which: Secured amount
Debt other than debentures	199,987	22,000	8,343	17,247	7,330	4,753	1,013	–	–
Debentures	9,825	–	–	–	–	–	–	–	–
Total	**209,812**	**22,000**	**8,343**	**17,247**	**7,330**	**4,753**	**1,013**	**–**	**–**
Of which: Accruing interest revenues, in arrears 90 days or longer	1,593	337	226	120	25	217	201	–	–

(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 – standard approach

Calculation of credit risk using the standard approach is based on external credit ratings assigned by External Credit Assessment Institutions (ECAI). For the calculation, the Bank uses S&P rating data.

Ratings from these rating agencies are used to determine the risk weighting of the following exposure groups:
- Sovereigns
- Public sector
- Banking corporations
- Corporations

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

The risk weighting for banks 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. In such cases, the risk weighting would be based on the issuer rating, rather than on the specific issue rating.
The following table maps the ratings by international rating agency S&P used by the Bank:

S&P
AAA to AA-
A+ to A-
BBB+ to BBB-
BB+ to BB-
B+ to B-
CCC+ 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 ratings from leading international rating agencies: Fitch, Moody's and S&P, which are used by the Bank for analysis as well as for setting exposure limits.
When preparing the operating framework for Israeli banks, the Bank is also assisted by ratings from rating agencies S&P Ma'alot and Midroog.

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, 2018

	Exposures before conversion factors and collateral deduction On-balance sheet amount[(2)]	Exposures before conversion factors and collateral deduction Off-balance sheet amount[(2)]	Exposures after conversion factors and collateral deduction On-balance sheet amount[(3)]	Exposures after conversion factors and collateral deduction Off-balance sheet amount[(3)]	Risk assets and density Risk assets	Risk assets and density Risk asset density
Sovereigns, central banks and national monetary authority	51,954	151	52,075	59	27	0%
Public sector entities (PSE) other than central Government	895	190	1,294	69	161	12%
Banks (including Multi-party Development Banks)	1,925	224	2,000	160	541	25%
Securities companies	–	–	–	–	–	0%
Corporations	32,627	43,984	29,136	14,822	39,460	90%
Retail exposure to individuals	20,171	10,675	18,531	1,487	15,014	75%
Loans to small businesses	10,569	3,684	8,878	765	7,232	75%
Secured by residential property	125,541	9,295	124,816	808	64,965	52%
Secured by commercial real estate	2,579	618	2,338	157	2,495	100%
Loans in arrears	2,448	72	2,355	72	3,022	125%
Other assets	3,917	29	3,917	14	2,207	56%
Total	**252,626**	**68,922**	**245,340**	**18,413**	**135,124**	**51%**

As of December 31, 2017

	Exposures before conversion factors and collateral deduction On-balance sheet amount[(2)]	Exposures before conversion factors and collateral deduction Off-balance sheet amount[(2)]	Exposures after conversion factors and collateral deduction On-balance sheet amount[(3)]	Exposures after conversion factors and collateral deduction Off-balance sheet amount[(3)]	Risk assets and density Risk assets	Risk assets and density Risk asset density
Sovereigns, central banks and national monetary authority	47,913	125	48,189	–	679	1%
Public sector entities (PSE) other than central Government	1,421	95	1,858	100	685	35%
Banks (including Multi-party Development Banks)	1,613	70	1,795	99	605	32%
Securities companies	–	–	–	–	–	–
Corporations	28,380	38,608	25,317	15,260	35,674	88%
Retail exposure to individuals	19,050	9,866	17,356	1,406	14,072	75%
Loans to small businesses	9,752	3,421	8,085	728	6,610	75%
Secured by residential property	119,107	4,656	118,185	606	60,803	51%
Secured by commercial real estate	2,426	524	2,226	215	2,440	100%
Loans in arrears	2,079	71	1,852	71	2,352	122%
Other assets	3,809	34	3,809	17	2,100	55%
Total	**235,550**	**57,470**	**228,672**	**18,502**	**126,020**	**51%**

(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 mitigators.

Standard approach – exposures by asset type and risk weighting(1)(2) (CR5)

As of December 31, 2018

Asset type / risk weighting	0%	20%	35%	50%	60%	75%	100%	150%	Other	Total credit exposures (after conversion factors and collateral deduction)
Sovereigns, central banks and national monetary authority	51,947	31	–	–	–	–	156	–	–	52,134
Public sector entities (PSE) other than central Government	557	806	–	–	–	–	–	–	–	1,363
Banks (including Multi-party Development Banks)	–	1,922	–	162	–	–	76	–	–	2,160
Securities companies	–	–	–	–	–	–	–	–	–	–
Corporations	–	5,357	–	523	–	–	38,078	–	–	43,898
Retail exposure to individuals	–	–	–	–	–	20,014	4	–	–	20,018
Loans to small businesses	–	–	–	–	–	9,638	5	–	–	9,643
Secured by residential property	–	–	53,994	28,696	4,572	37,548	814	–	–	125,624
Secured by commercial real estate	–	–	–	–	–	–	2,495	–	–	2,495
Loans in arrears	–	–	–	–	–	–	1,237	1,190	–	2,427
Other assets	1,758	–	–	–	–	–	2,111	62	–	3,931
Of which: with respect to shares	–	–	–	–	–	–	12	47	–	59
Total	**54,262**	**8,116**	**53,994**	**29,381**	**4,572**	**67,200**	**44,976**	**1,252**	**–**	**263,753**

As of December 31, 2017

Asset type / risk weighting	0%	20%	35%	50%	60%	75%	100%	150%	Other	Total credit exposures (after conversion factors and collateral deduction)
Sovereigns, central banks and national monetary authority	45,076	3,041	–	–	–	–	72	–	–	48,189
Public sector entities (PSE) other than central Government	617	–	–	1,311	–	–	30	–	–	1,958
Banks (including Multi-party Development Banks)	–	1,461	–	310	–	–	123	–	–	1,894
Securities companies	–	–	–	–	–	–	–	–	–	–
Corporations	–	5,981	–	237	–	–	34,359	–	–	40,577
Retail exposure to individuals	–	–	–	–	–	18,764	2	–	–	18,762
Loans to small businesses	–	–	–	–	–	8,811	2	–	–	8,813
Secured by residential property	–	–	54,846	26,128	–	37,094	723	–	–	118,791
Secured by commercial real estate	–	–	–	–	–	–	2,441	–	–	2,441
Loans in arrears	–	–	–	–	–	–	1,063	860	–	1,923
Other assets	1,778	–	–	–	–	–	1,986	60	2	3,826
Of which: with respect to shares	–	–	–	–	–	–	23	43	–	66
Total	**47,471**	**10,483**	**54,846**	**27,986**	**–**	**64,669**	**40,797**	**920**	**2**	**247,174**

(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, after credit conversion factors and after credit risk mitigators.

Counter-party credit risk

Qualitative disclosure of counter-party credit risk (CCRA)

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. Economic loss would be incurred only when the transaction with the counter-party would have a positive economic value upon such default. The market value of the transaction, which may be positive or negative for either party, actually depends on volatility of market factors. Should the counter-party be in default, and the transaction have a positive fair value, this may cause the Bank to incur a loss, liquidity issues and difficulties in carrying out further transactions. Counter-party risk may be affected by other risks, including: credit risk, market risk, liquidity risk, operational risk and reputational 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 banks and sovereigns and another document, which is part of the Bank's credit policies, concerns client activities in financial derivatives. The trading in derivative instruments 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 derivative instruments, both for its clients 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 clients a wide range of financial instruments – while maintaining an appropriate framework for addressing such risk.

Exposure to banks 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 banks in these countries. Operations are carried out while maintaining proper diversification of exposures to banks and sovereigns. The Bank has very little business with less developed nations rated lower, only in response to client needs.

Risks 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 banks and sovereigns, the Bank has developed a methodology for calculating facilities with each counter-party, based on the quality, rating and capital of such banks 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 client exposure and to alert any deviations. The control mechanism for operations with foreign banks relies on special reports created in the Bank's infrastructure system and exception reports generated to monitor business in Israel and overseas, including a Banks Report, which lists all exposures to banks as well as deviation reports, which reflect deviations from agreed facilities, if any. In addition, another control system is in place in the trading room, which includes a feature to present an overview of trading facilities with banks and sovereigns.

The Bank regularly adjusts its exposure to banks 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 banks, 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. Note that in 2018, similar to the previous year, the Bank emphasized monitoring of the effects of political and economic events, mostly in Europe, on Bank operations with counter-parties exposed to such effects. The Bank's risk level with regard to these events is low.

Restrictions and controls – The Bank has operations involving financial derivative instruments, mostly vis-à-vis clients, 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 clients who are mostly engaged in trading financial derivative instruments and short-selling or with clients who are not subject to capital requirements or collateral. These clients are closely monitored at a higher frequency than other clients.

At the Bank, a limit restriction applies for banks and sovereigns, including reference to derivatives. Furthermore, a restriction applies to customer facilities based on certain parameters. The Risks Control Division includes a dedicated department, specialized in control of exposure arising from capital market operations, which daily reviews clients active in this field. Furthermore, as part of Risks Control Division operations, the 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, clients are required to provide collateral in accordance with Bank procedures. In its activities vis-à-vis banks 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.

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

As of December 31, 2018

	Subrogation cost	Future potential exposure	Exposure after deduction of collateral	Risk assets
Current exposure method	2,465	2,042	3,242	2,053
Comprehensive approach to credit risk mitigation (for securities financing transactions)	535	–	136	136
Total	**3,000**	**2,042**	**3,378**	**2,189**

As of December 31, 2017

	Subrogation cost	Future potential exposure	Exposure after deduction of collateral	Risk assets
Current exposure method	1,506	2,307	2,821	1,621
Comprehensive approach to credit risk mitigation (for securities financing transactions)	423	–	64	64
Total	**1,929**	**2,307**	**2,885**	**1,685**

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

	As of December 31, 2018 Exposure after deduction of collateral	As of December 31, 2018 Risk assets
Total – portfolios for which CVA is calculated using the standard approach	2,626	576

	As of December 31, 2017 Exposure after deduction of collateral	As of December 31, 2017 Risk assets
Total – portfolios for which CVA is calculated using the standard approach	2,584	529

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

As of December 31, 2018

Supervisory portfolio / risk weighting	0%	10%	20%	50%	75%	100%	150%	Other	Total credit exposure
Sovereigns	14	–	302	–	–	–	–	–	316
Public sector entities (PSE) other than central Government	–	–	175	–	–	–	–	–	175
Banks (including Multi-party Development Banks)	–	–	669	–	–	37	–	–	706
Securities companies	–	–	–	–	–	–	–	–	–
Corporations	–	–	322	3	–	1,714	–	–	2,039
Supervisory retail portfolios	–	–	–	–	–	6	–	–	6
Other assets	–	–	–	–	–	–	–	–	–
Total	**14**	**–**	**1,468**	**3**	**–**	**1,757**	**–**	**–**	**3,242**

As of December 31, 2017

Supervisory portfolio / risk weighting	0%	10%	20%	50%	75%	100%	150%	Other	Total credit exposure
Sovereigns	97	–	–	–	–	–	–	–	97
Public sector entities (PSE) other than central Government	–	–	–	160	–	–	–	–	160
Banks (including Multi-party Development Banks)	–	–	418	377	–	86	–	–	881
Securities companies	–	–	–	–	–	–	–	–	–
Corporations	–	–	581	–	–	1,096	–	–	1,677
Supervisory retail portfolios	–	–	–	–	–	6	–	–	6
Other assets	–	–	–	–	–	–	–	–	–
Total	**97**	**–**	**999**	**537**	**–**	**1,188**	**–**	**–**	**2,821**

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

As of December 31, 2018

	Collateral used in derivatives transactions Fair value of collateral received Discon-nected	Collateral used in derivatives transactions Fair value of collateral received Not discon-nected	Collateral used in derivatives transactions Fair value of collateral deposited Discon-nected	Collateral used in derivatives transactions Fair value of collateral deposited Not discon-nected	Collateral used in securities financing transactions Fair value of collateral received	Collateral used in securities financing transactions Fair value of collateral deposited
Cash – local currency	–	589	–	490	194	–
Cash – other currencies	–	251	–	1,107	3	–
Local sovereign debt	–	257	–	–	10	–
Other sovereign debt	–	3	–	–	–	–
Government agency debt	–	–	–	–	–	–
Corporate debentures	–	85	–	–	67	–
Shares	–	423	–	–	125	–
Other collateral	–	–	–	–	–	–
Total	**–**	**1,608**	**–**	**1,597**	**399**	**–**

As of December 31, 2017

	Collateral used in derivatives transactions Fair value of collateral received Discon-nected	Collateral used in derivatives transactions Fair value of collateral received Not discon-nected	Collateral used in derivatives transactions Fair value of collateral deposited Discon-nected	Collateral used in derivatives transactions Fair value of collateral deposited Not discon-nected	Collateral used in securities financing transactions Fair value of collateral received	Collateral used in securities financing transactions Fair value of collateral deposited
Cash – local currency	–	861	–	–	243	–
Cash – other currencies	–	507	–	281	7	–
Local sovereign debt	–	158	–	–	11	–
Other sovereign debt	–	4	–	–	–	–
Government agency debt	–	–	–	–	–	–
Corporate debentures	–	47	–	–	5	–
Shares	–	301	–	–	93	–
Other collateral	–	–	–	–	–	–
Total	**–**	**1,878**	**–**	**281**	**359**	**–**

(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)

	December 31, 2018 Protection acquired	December 31, 2018 Protection sold
Stated amounts		
Single-name credit default swaps	606	300
Credit options	2	–
Other credit derivatives	41	41
Total – stated amounts	649	341
Fair value – values		
Positive fair value (asset)	7	8
Negative fair value (liability)	(10)	–

	December 31, 2018 Protection acquired	December 31, 2018 Protection sold
Stated amounts		
Single-name credit default swaps	776	–
Credit options	2	–
Other credit derivatives	–	–
Total – stated amounts	778	–
Fair value – values		
Positive fair value (asset)	9	–
Negative fair value (liability)	(2)	–

Exposures to central counter parties (CCR8)

As of December 31, 2018

	Exposure after deduction of collateral	Risk assets
Exposures to qualified central counter-party (total)	**1,088**	**217**
Exposures to transactions with Qualified Central Counter Party (excluding initial collateral and transfers to risk reserve), of which:	351	70
OTC derivatives	–	–
Transactions in derivatives traded on the stock exchange	351	70
Securities financing transactions	–	–
Offset arrangements where offset between products has been approved	–	–
Initial disconnected collateral	–	–
Initial non-disconnected collateral	10	2
Funded transfers to risk reserve	376	75
Unfunded transfers to risk reserve	–	–
Exposures to non-qualified central counter-party (total)	–	–
Exposures to transactions with non Qualified Central Counter Party (excluding initial collateral and transfers to risk reserve), of which:	–	–
OTC derivatives	–	–
Transactions in derivatives traded on the stock exchange	–	–
Securities financing transactions	–	–
Offset arrangements where offset between products has been approved	–	–
Initial disconnected collateral	–	–
Initial non-disconnected collateral	–	–
Funded transfers to risk reserve	–	–
Unfunded transfers to risk reserve	–	–

As of December 31, 2017

	Exposure after deduction of collateral	Risk assets
Exposures to qualified central counter-party (total)	**1,528**	**305**
Exposures to transactions with Qualified Central Counter Party (excluding initial collateral and transfers to risk reserve), of which:	581	116
OTC derivatives	–	–
Transactions in derivatives traded on the stock exchange	581	116
Securities financing transactions	–	–
Offset arrangements where offset between products has been approved	–	–
Initial disconnected collateral	–	–
Initial non-disconnected collateral	12	2
Funded transfers to risk reserve	354	71
Unfunded transfers to risk reserve	–	–
Exposures to non-qualified central counter-party (total)	–	–
Exposures to transactions with non Qualified Central Counter Party (excluding initial collateral and transfers to risk reserve), of which:	–	–
OTC derivatives	–	–
Transactions in derivatives traded on the stock exchange	–	–
Securities financing transactions	–	–
Offset arrangements where offset between products has been approved	–	–
Initial disconnected collateral	–	–
Initial non-disconnected collateral	–	–
Funded transfers to risk reserve	–	–
Unfunded transfers to risk reserve	–	–

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). The Bank has no exposure to commodities and its exposure to equities is not material, so that Bank exposure to such risk is primarily due to basis risk – the risk exists when the Bank's assets and liabilities are denominated in different currencies or are in different linkage segments – and from interest rate risk, which the risk to Bank profit and to Bank capital, primarily due to fluctuations in interest rates, fluctuations of various curves used by the Bank in its business operations or from the fact that a change in interest rates may result in a change in composition of the Bank's assets and liabilities due to exercise of options for early repayment due to change in market interest rates. Changes in interest rates impact Bank profits (change in revenues) and the value of Bank assets (change in fair value).

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 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 negotiable 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 operations and is reflected in the Bank's financial statements. 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 reasonable risk level, in conformity with the risk appetite specified for such risk, while taking advantage of opportunities and constant monitoring of the risk profile, so that the Bank would not be exposed to significant losses.
- Negotiable portfolio – This portfolio includes portfolios managed by the Trading Room (portfolio of debentures held for trading by the Interest Trade Unit (market maker), derivative transactions classified under Trading Room portfolios), as ell as portfolios of debentures 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 negotiable portfolio. This portfolio is managed subject to conservative exposure limits and its risk level is low.

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 negotiable portfolio.

The directive includes the Basel II directives with regard to definition of the negotiable portfolio, management and its revaluation and stipulates that inclusion of an instrument and/or position in the negotiable 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 (trading intent or hedging of other components in the negotiable portfolio, active portfolio management and frequent, accurate valuation of the portfolio).

The Bank is required to allocate capital with respect to interest risk and equities in the negotiable 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.

Capital allocation for currency exposure (basis risk) is at 8% of the net open position in each currency. No capital allocation is made for inflation exposure (NIS / CPI position). As part of the provisions of this directive.

Bank operations in the negotiable 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 Bank structure, which is weighted towards the mortgage portfolio, produces long-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 increase 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 risks 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 negotiable) 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 11% of shareholders' equity, and that the maximum loss in stress tests, the highest of all calculation methods, will not exceed 18% 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. The Bank specified the risk appetite in terms of VaR for its entire portfolio and uses this benchmark as another tool for monitoring its activities in various option portfolios.

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 in the normal course of business and 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 the 2008-2009 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.

Interest risk in the bank portfolio is measured and managed by the economic value approach, using the EVE model, which is the primary model used for interest risk management at the Bank.

The EVE model reviews the effect of changes to interest rate curves on the economic value (including credit and deposit margins) of th bank portfolio, under various assumptions with regard to changes to the interest rate curves (divided by operating segment, such as derivatives, deposits and mortgages, and divided by linkage segments). The economic value of a banking corporation is defined as the present value of its expected cash flows, net, which are defined as expected cash flows with respect to assets, less cash flows with respect to liabilities, plus expected cash flows, net, with respect to off-balance sheet positions.

The EVE model reviews the effect of changes to risk-free interest rates only, under multiple interest rate scenarios which reflect both the normal course of business and stress scenarios, including concurrent and non-current changes, specified in advance, to interest rate curves. The Bank has specified a risk appetite at 18% of capital, under a standard stress shock scenario, a PV02 scenario – i.e. a concurrent 2% shift in the curves. The Bank has also specified management guidelines at lower risk levels and for scenarios reflecting the normal course of business. 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 client.

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.

Handling of inherent behavioral options in on-balance sheet instruments

Some instruments have inherent options which are sensitive to change in interest rates. Forecasting such instruments requires use of behavioral assumptions which are based on models and/or empirical calculations made by the Bank. These models are subject to constant validation, including back testing, designed to review the forecast vs. actual conditions.

Below is a mapping of major inherent behavioral options:

- Early repayment of mortgages – behavioral model – Mortgages are spread over the contractual maturity, in addition to behavioral assumptions based on an empirical review of borrower behavior in the various linkage segments. Parameters of the behavioral model are reviewed monthly and brought for discussion by the relevant management committees.
- Deposits – behavioral model – the Bank offers a wide range of deposits with inherent behavioral options: withdrawal at periodic exit points, regular exercise of liquid options and future deposits by standing order. The expected future cash flows with respect to these deposits is based on historical behavioral analysis of options exercise, withdrawal and deposit by depositors. These data are regularly reviewed, as part of testing the model assumptions.
- Checking accounts in credit – Credit balances of checking accounts not expected to be impacted by change in interest rate are assigned based on empirical review of the behavior of such balances. The Bank is reviewing the assignment model, as recommended by the validation process which highlighted the over-conservative approach of the current model.

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 negotiable 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 negotiable 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 stated in the directive i.e. there is trading intent or hedging of other components in the negotiable 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 consists of all portfolios managed by the Trading Room (debenture trading portfolio of the Interest Trade Unit (market maker), derivative transactions classified under

Trading Room portfolios (and options), as well as trading portfolios of debentures 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 negotiable portfolio. The trading portfolio is exposed to the following risk factors: Foreign currency exposures, interest exposures and options-related exposures.

In general, all derivatives transactions with external counter-parties are conducted by the Trading Room 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. In the fourth quarter of this year, there were no transfers between the portfolios after the transaction contracting date.

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 negotiable portfolio and in the bank portfolio.

Upon any unusual occurrence in the capital market, such as an unexpected change in interest rates, shake-ups 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's Board of Directors – The Bank's 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 debenture portfolio and the specific policy on derivatives risk and OTC transactions, after discussion and approval by the Risks Management Committees of the Finance Division, the Risks Monitoring Forum headed by the CRO, by Bank management and by the Board of Director's Risks 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 negotiable 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.

The Financial Management Sector of the Finance Division is the entity which manages exposure to market and interest risks on a regular basis and acts to implement the policies and the decisions made, for management of these risks and control required based on operations of the first line of defense, in conformity with Bank of Israel directives.

Second line of defense – Risks Management Function

The Manager, Risks Control Division (the Chief Risks Officer – CRO) is responsible for the overall Risk Manager 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 negotiable 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 unit for control of market and liquidity risks, which is part of the Financial Risk Control Department, used as a middle line for monitoring trading room activity, including with regard to matters related to compliance and administrative enforcement.

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 tests. The information systems involved in the calculation are regularly reviewed, through internal controls processes at the Bank and continuous validation processes. The Algorythmics system is used as the central system 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 the SAS platform, as a complementary system for development and maintenance of calculations, ad-hoc analysis and risk 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.

Market risk using the standard approach

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

	Risk assets as of December 31, 2018	Risk assets as of December 31, 2017
Direct products		
Interest rate risk (general and specific)	1,163	1,139
Stock position risk (general and specific)	2	–
Exchange rate risk	309	307
Commodities risk	–	–
Options	–	–
Delta Plus approach	20	159
Securitization	–	–
Total	**1,494**	**1,605**

As noted above, exposures in the trading portfolio are low, mostly arising from interest risk, and values of this risk were essentially unchanged during the year.

Additional information about market risk

Market risks to which the Bank is exposed

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 client 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.

Financial derivatives

Operations involving financial derivatives are conducted in the trading room, both for trading portfolios managed in the trading room and for various clients, 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 stated above in chapter "Counter-party credit risk" and in chapter "Credit" with regard to the capital market segment.

Means of supervision over and implementation of the policy

The Board of Director's Risks Management Committee specifically discusses matters of market and interest risk, including a comprehensive overview of how interest risk is managed, overview of key assumptions made in managing interest risk and sensitivity analysis to key assumptions. At this discussion, the policy document on management of market and interest risk is brought for approval. This document constitutes the framework for management of market and interest risk, including description of the organizational structure with regard to market risk, details of measurement methods and risk appetite for market and interest risk, by imposing quantitative and qualitative limits on management of such risk – which cover all financial activity, on- and off-balance sheet, across all linkage segments.

The Bank's Board of Directors holds a discussion to approve the policy document, after receiving the recommendation by the Board of Director's Risks Management Committee.

Furthermore, the Board received periodic reports about market and interest risk, *inter alia*, in the quarterly Risks Document, so as to allow it to ensure that the risk profile and its development are in line with the specified risk appetite, and to ensure that principles of market and interest risk management are actually applied at the Bank.

Note that Bank policy specifies several indicators and discussion thresholds which require review and discussion by Bank management and reporting the outcome of such discussion to the Board of Directors.

Bank management holds monthly discussions of the state of actual exposures to market and interest risk across all portfolios (bank, trading), at Bank level and at Group level (including subsidiaries), the effect of current banking activity on the structure of the balance sheet and of market and interest positions, detailed analysis of behavioral assumptions vs. actual activity, and special topics in accordance with developments in financial and capital markets.

This Forum is also attended by second line functions, risks control and accounting, and an independent overview of overall risk control, risk analysis, risk development forecasts, validation processes and other relevant matters is presented.

The Risks Control Division constantly acts to challenge activity of the first line, the Finance Division, to estimate risk values under additional stress scenarios and to identify risk concentrations, as part of its activity to manage the overall risk map at the Bank.

The Bank has a procedure for financial management during emergency, which includes identification processes and conduct in line with events, pending return to the normal course of business. In this regard, the Bank monitors a range of triggers / advance indicators, which point to potential occurrence of a financial event, and convenes the Emergency Forum to handle the event, as needed. The Forum includes all relevant risk owners and the Chief Risks Officer.

Any material unusual events and deviation from risk limits, should they occur, are flagged and reported in conformity with the reporting policy for events in the normal course of business and in emergency.

Management of positions in trading portfolio

The positions in the trading portfolio, which mostly consists, as noted above, of portfolios managed by the trading room, are managed 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 Financial Risks 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.

Events subsequent to the balance sheet date which concern market risk

In January 2019, the Bank's Board of Directors approved a new policy document on interest risk in the bank portfolio. Consequently, interest risk measurement should change, with the effect of change in interest rates and the effect of behavioral changes to be measured concurrently. Moreover, the capitalization curves would be revised, from zero curves to source cost curves. These changes should materially impact the risk values.

Additional information about exposure to and management of market risk, using risks management models

As noted above, the key method used to manage interest exposures is the economic value approach. In addition, the Bank manages interest risk based on the earnings approach using, *inter alia*, the Net Interest Income (NII) model. This model reviews expected changes to the Bank's net financing revenues due to changes to risk-free interest rates, for a short-term investment horizon, using a benchmark of rising cost of sources, which reviews the effect of changes to source margins on the Bank's economic value over a short-term investment horizon.

These benchmarks are complementary to understanding the effect of changes to interest rate curves on the Bank.

Furthermore, interest risk is a key component of the ICAAP process and capital measurement required under Pillar 2 against all risks, and in particular risks for which no capital is allocated in Pillar 1, interest risk in the bank portfolio.

Developments in market risk

Risk values in the different benchmarks indicate exposure in economic fair value to higher interest rates, due to the relatively long uses (mortgage portfolio) vs. shorter sources, as opposed to financing profir under a scenario of increase in short-term interest rate. Risk values were affected both by current mortgage performance and deposit operations, and by proactive sale of mortgage portfolios, conducting transactions involving derivatives and activity in the debenture portfolio. The effect of these activities was mostly offset, and risk values remained stable to slightly higher late in the year.

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 2018. The Bank continues to implement interest risk management principles, as published in the Basel Committee's position paper dated April 2016.

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 Directive 333. This regulation stipulates a general framework and principles for risk management, defines the commitment of the Board of Directors and senior management with regard to supervision and management of interest risk, and requires supportive organizational infrastructure, as well as functions for risk measurement, monitoring and control. 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.

Under the earnings approach – The financing margin is 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 Owners at the Bank. The calculation is made from the individual transaction level, which allows for segmentation and analysis by different criteria, such as: instrument type, linkage basis, term to maturity etc.

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.

Economic value approach – EVE (Economic Value of Equity) is a model which reflects the economic value approach. This 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 negotiable 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 and flatter 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. Capital allocation in conformity with Basel Pillar 2 is reviewed both under scenarios which reflect the normal life state and under stress scenarios, including systemic scenarios and threat scenarios. This is done as part of the ICAAP process.

A major tool for management and mitigation of interest risk is setting shadow prices at the Bank (transfer pricing). Shadow prices 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 debentures. 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

In order to calculate interest risk in the bank portfolio, the Bank applies the equity approach using the EVE model, which is the main model for interest risk management at the Bank.

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. Financial instruments bearing fixed interest are forecast to final maturity, in conformity with the maturity schedule; financial instruments bearing variable interest are forecast to the nearest interest rate adjustment date. The fixed spread over the variable interest anchor is calculated through final maturity. Cash flows discounting is applied using Zero Coupon (risk-free curves) for the various linkage bases.

The Bank reviews the EVE benchmark, including with separation of principal and interest effects, used as an additional tool to make proactive decisions on management of interest rate positions. One of these scenarios is a scenario involving a parallel move of the curves by 2%. This scenario, which reflects a stress event, was specified by the Bank of Israel as a scenario which requires the Bank to report to the Supervisor of Banks in case its result reaches 20% of the Bank's core capital.

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 risk-free interest rate curves, because the Bank is only interested in managing changes to risk-free interest rates using this model, and not to credit / deposit spreads, as an example.

Capitalization of cash flows consisting of credit and deposit spreads using the risk-free curve means that higher risk values are generated.

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 risks 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 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, 2018 - Change in fair value

	Israeli currency Non-linked	Israeli currency Linked to CPI	Foreign currency Dollar	Foreign currency EUR	Other	Total
2% increase	(289)	(2,076)	46	(43)	(1)	(2,363)
Decrease of 2%	757	2,522	(30)	48	–	3,297

December 31, 2017 - Change in fair value

	Israeli currency Non-linked	Israeli currency Linked to CPI	Foreign currency Dollar	Foreign currency EUR	Other	Total
2% increase	(714)	(1,112)	26	(47)	(1)	(1,848)
Decrease of 2%	1,285	1,408	(5)	53	2	2,743

(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. Market risk in the Bank's negotiable portfolio, primarily composed of portfolios managed in the trading room, is managed by means of quantitative limitations specified for each portfolio based on its activity.

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 client types.

The increase in risk values in 2018 is primarily due to mortgage performance and to purchase of debentures. This increase was partially offset by deposits raised and from sale of mortgage portfolios.

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

	All of 2018	All of 2017
At end of period	537	533
Maximum value during period	(FEB) 640	(APR) 781
Minimum value during period	(DEC) 537	(FEB) 388

Market risk in the Bank's negotiable portfolio, primarily composed of portfolios managed in the trading room, is managed by means of relatively low quantitative limitations specified for each portfolio based on its activity.

Market risk is primarily due to interest risk in the bank portfolio.

Back-testing of the historical-analytic VaR model shows one case in which the daily loss exceeded the forecast VaR value. This number of cases is within the criteria specified by the Basel Committee for review of the VaR model quality.

Evidently, the VaR based on historical stress scenario is significantly lower than the VaR calculated under a stress scenario of 2% change in the interest rate curve.

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:

	As of December 31, 2018 NIS Non-linked	As of December 31, 2018 NIS CPI-linked	As of December 31, 2018 Foreign currency Dollar	As of December 31, 2018 Foreign currency Other	As of December 31, 2018 Total	As of December 31, 2017 NIS Non-linked	As of December 31, 2017 NIS CPI-linked	As of December 31, 2017 Foreign currency Dollar	As of December 31, 2017 Foreign currency Other	As of December 31, 2017 Total
Financial assets[2]	173,748	52,893	17,291	6,672	250,604	164,265	50,926	13,070	5,061	233,322
Other amounts receivable with respect to financial derivatives, complex and off-balance sheet financial instruments	140,027	7,124	113,664	16,691	277,506	105,654	8,976	72,480	16,666	203,776
Financial liabilities	(159,978)	(37,586)	(33,953)	(6,672)	(238,189)	(148,909)	(38,814)	(28,725)	(7,019)	(223,467)
Other amounts payable with respect to financial derivatives, complex and off-balance sheet financial instruments	(153,140)	(10,592)	(97,253)	(16,942)	(277,927)	(119,582)	(12,326)	(56,708)	(14,821)	(203,437)
Net fair value of financial instruments	**657**	**11,839**	**(251)**	**(251)**	**11,994**	**1,428**	**8,762**	**117**	**(113)**	**10,194**
Effect of liabilities with respect to employee rights	(135)	(1,003)	–	–	(1,138)	(123)	(1,113)	–	–	(1,236)
Effect of attribution of on-call deposits to terms	210	–	26	–	236	176	–	38	–	214
Adjusted net fair value	**732**	**10,836**	**(225)**	**(251)**	**11,092**	**1,481**	**7,649**	**155**	**(113)**	**9,172**
Of which: Banking portfolio	**(382)**	**11,308**	**(1,477)**	**396**	**9,845**	**697**	**8,010**	**(78)**	**250**	**8,879**

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

	As of December 31, 2018 NIS Non-linked	As of December 31, 2018 NIS CPI-linked	As of December 31, 2018 Foreign currency Dollar	As of December 31, 2018 Foreign currency Other	As of December 31, 2018 Total	As of December 31, 2017 NIS Non-linked	As of December 31, 2017 NIS CPI-linked	As of December 31, 2017 Foreign currency Dollar	As of December 31, 2017 Foreign currency Other	As of December 31, 2017 Total
Concurrent changes										
Concurrent 1% increase	473	(211)	(80)	(7)	175	544	132	(109)	(4)	563
Of which: Banking portfolio	453	(252)	(15)	(6)	180	505	118	(45)	(3)	575
Concurrent 1% decrease	(439)	227	86	7	(119)	(511)	(149)	120	5	(535)
Of which: Banking portfolio	(424)	268	19	7	(130)	(480)	(136)	54	4	(558)
Non-concurrent changes										
Steeper[3]	(301)	115	(73)	(9)	(268)	(225)	191	(63)	(12)	(109)
Of which: Banking portfolio	(288)	110	(82)	(5)	(265)	(190)	188	(79)	(14)	(95)
Shallower[4]	412	(103)	65	8	382	334	(208)	54	11	191
Of which: Banking portfolio	408	(127)	73	4	358	323	(200)	83	15	221
Short-term interest increase	576	(225)	46	6	403	456	(218)	31	10	279
Of which: Banking portfolio	594	(235)	52	1	412	547	(200)	82	17	446
Short-term interest decrease	(588)	239	(46)	(6)	(401)	(412)	196	47	28	(141)
Of which: Banking portfolio	(410)	258	15	6	(131)	(315)	205	65	31	(14)

(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 derivative instruments, 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.

Impact of change scenarios in interest rates on net interest revenues and non-interest financing revenues:

	As of December 31, 2018 Interest revenues	As of December 31, 2018 Non-interest financing revenues(1)	As of December 31, 2018 Total	As of December 31, 2017 Interest revenues	As of December 31, 2017 Non-interest financing revenues(1)	As of December 31, 2017 Total
Concurrent changes						
Concurrent 1% increase	478	228	706	438	224	662
Of which: Banking portfolio	478	226	704	438	227	665
Concurrent 1% decrease	(308)	(232)	(540)	(358)	(232)	(590)
Of which: Banking portfolio	(308)	(231)	(539)	(358)	(232)	(590)

(1) Includes the effect of fair value, gain (loss) from transactions in debentures and the effect of interest accrual for transactions in derivatives.

Additional information about interest risk

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

Reported amounts (NIS in millions)

	As of December 31, 2018 On Call to 1 month	As of December 31, 2018 Over 1 month to 3 months	As of December 31, 2018 Over 3 months to 1 year	As of December 31, 2018 Over 1-3 years	As of December 31, 2018 Over 3-5 years	As of December 31, 2018 Over 5-10 years	As of December 31, 2018 Over 10 to 20 years	As of December 31, 2018 Over 20 years	As of December 31, 2018 Without maturity	As of December 31, 2018 Total fair value	As of December 31, 2018 Internal rate of return In %	As of December 31, 2018 Average effective duration[3] in years	As of December 31, 2017 Total fair value	As of December 31, 2017 Internal rate of return In %	As of December 31, 2017 Average effective duration[3] in years
Financial assets[1]	145,516	10,958	16,918	32,468	25,310	12,279	5,885	597	673	250,604	3.43	1.48	233,322	3.25	1.66
Other amounts receivable[2]	106,403	37,009	60,928	26,335	20,430	26,401	–	–	–	277,506		0.55	203,776		0.71
Financial liabilities	87,679	24,755	46,446	36,042	23,350	17,547	3,108	161	3	239,091	1.17	1.23	224,489	1.08	1.45
Other amounts payable[2]	106,234	37,330	60,969	26,555	20,443	26,396	–	–	–	277,927		0.64	203,437		0.82
Exposure to interest rate fluctuations	58,006	(14,118)	(29,569)	(3,794)	1,947	(5,263)	2,777	436	670	11,092			9,172		
Additional details on exposure to changes in interest rates															
A. By nature of activity:															
Exposure in bank portfolio	57,596	(14,240)	(30,050)	(3,925)	1,905	(5,299)	2,777	411	670	9,845		0.15	8,879		0.13
Exposure in trading portfolio	410	122	481	131	42	36	–	25	–	1,247		2.49	293		1.57
B. By linkage basis:															
Israeli currency – non-linked	52,847	(13,834)	(20,341)	(12,816)	(6,369)	(2,388)	2,751	290	592	732		[5]0.04	1,481		[5]0.19
Israeli currency – linked to the CPI	(2,482)	1,258	1,593	8,587	5,031	(3,251)	(55)	146	9	10,836		[5]0.77	7,649		[5]0.02
Foreign currency [4]	7,641	(1,542)	(10,821)	435	3,285	376	81	–	69	(476)		[5]0.01	42		[5]0.03
C. Effect on exposure to interest rate fluctuations															
Effect of liabilities with respect to employees' rights	10	16	70	189	158	261	273	161	–	1,138	2.09	9.15	1,236	1.38	9.58
Effect of attribution of on-call deposits to terms	(29,701)	6,383	13,348	7,846	1,060	620	208	–	–	(236)	(0.75)	0.92	(214)	(0.60)	0.78
Effect of early repayment of housing loans	346	647	2,515	3,673	(104)	(167)	(4,578)	(1,755)	68	645	(0.07)	(0.91)	1,059	(0.10)	(0.58)
Effect of other behavioral assumptions	(581)	2,043	(2,372)	18,629	(2,741)	(7,505)	(4,531)	(1,755)	–	1,187	(0.08)	0.05	179	(0.20)	0.49

Specific remarks:

(1) Excludes balance sheet balances of financial derivative instruments, 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 employees' 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 terms 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 15 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 15 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 derivative elements 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.

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 1% 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 5 to the financial statements.

For more information about adoption of updates to US GAAP with regard to recognition and measurement of financial instruments (ASU 2016-01) as from January 1, 2019, see Note 1. E. to the financial statements.

Below is information about the composition of equity investments in the bank portfolio:

December 31, 2018

	Fair value	Capital requirement[(1)]
Shares	57	8
Venture capital / private equity funds	67	9
Total investment in shares in bank portfolio	**124**	**17**

December 31, 2017

	Fair value	Capital requirement[(2)]
Shares	57	8
Venture capital / private equity funds	74	10
Total investment in shares in bank portfolio	**131**	**18**

(1) The capital requirement was calculated at 13.34%.
(2) The capital requirement was calculated at 13.36%.

Liquidity risk

Liquidity risk – risk resulting from uncertainty as to the availability of sources and the ability to realize assets within a specified period of time and at a reasonable price.

Liquidity risk is a material and unique, due to the need to respond to it in the shortest possible time. Risk materialization may cause the Bank to incur significant loss and may even result in 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" and Directive 221 "Liquidity coverage 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 Regulation 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 from January 1, 2017, the minimum required is 100%. 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; hence 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. This is in addition to liquidity risk management using internal models, 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 ratio directive(Directive 221) 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 clients 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).

As noted above, 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. 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 including an appropriate safety margin relative to the Board of Directors' limit, along with efficient management of excess liquidity, in order to achieve maximum return for the Bank.

Approach to operational risk policy and setting limits

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 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 2018 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 the regulation, based on directives of the Basel 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.
- Net Stable Funding Ratio (NSFR) – the ratio of stable financing 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). The estimation is based on the latest directives issued by the Basel Committee on this matter.

- 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.

In this regard, note that in December, the Bank raised its state of alert to Elevated, due to market volatility in Israel and world-wide. In practice, no events and/or indications were observed which would indicate realization of a liquidity event. After markets have calmed down,the Bank decided to return to the normal course of business.

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 2018 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 system-wide – scenario involving shocks to financial markets, which impact overseas affiliates 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 client audience.

Liquidity coverage ratio (LIQ1)

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

For the three months ended December 31, 2018	Total unweighted value[2] (Average)	Total weighted value[3] (Average)
Total high-quality liquid assets		
Total high-quality liquid assets		**40,572**
Outgoing cash flows		
Retail deposits from individuals and from small businesses, of which:	101,194	6,121
Stable deposits	29,632	1,482
Less stable deposits	32,171	3,457
Deposits for terms longer than 30 days	39,390	1,182
Unsecured wholesale financing, of which:	49,596	31,690
Deposits for operational needs (all counter-parties) and deposits with networks of co-operative banking corporations	1,514	378
Deposits other than for operational needs (all counter-parties)	47,710	30,940
Unsecured debts	372	372
Secured wholesale financing	–	205
Additional liquidity requirements, of which:	77,000	18,798
Outflows with respect to derivatives exposure and other collateral requirements	14,513	14,513
Credit lines and liquidity	34,863	2,373
Other contingent financing obligations	27,624	1,912
Total outgoing cash flows		**56,814**
Incoming cash flows		
Secured loans	628	269
Inflows from regularly repaid exposures	8,728	6,241
Other incoming cash flows	20,304	15,187
Total incoming cash flows	29,659	**21,696**

	Total adjusted value[4]
Total high-quality liquid assets	**40,572**
Total outgoing cash flows, net	**35,118**
Liquidity coverage ratio (%)	**116**

(1) Information is presented in terms of simple averages of daily observations during the reported quarter. The number of observations used in calculating the averages in the fourth quarter of 2018 is 77.

(2) Unweighted values are accounted for as outstanding balances payable or which may be payable by the holder, within 30 days (for both inflows and outflows).

(3) Weighted values are accounted for after applying appropriate security factors or inflow / outflow rates (for inflows and outflows).

(4) Adjusted value are calculated after applying: Safety factors and inflow / outflow rates; and all applicable restrictions (i.e. restriction on High-Quality Liquid Assets and restriction on inflows, as specified in Proper Conduct of Banking Business Directive 221).

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

For the three months ended December 31, 2017

	Total unweighted value[2] (Average)	Total weighted value[3] (Average)
Total high-quality liquid assets		
Total high-quality liquid assets		**39,938**
Outgoing cash flows		
Retail deposits from individuals and from small businesses, of which:	96,011	5,920
Stable deposits	28,718	1,436
Less stable deposits	31,730	3,417
Deposits for terms longer than 30 days	35,563	1,067
Unsecured wholesale financing, of which:	45,666	29,476
Deposits other than for operational needs (all counter-parties)	45,596	29,406
Unsecured debts	70	70
Secured wholesale financing	–	142
Additional liquidity requirements, of which:	72,132	19,668
Outflows with respect to derivatives exposure and other collateral requirements	15,544	15,544
Credit lines and liquidity	29,522	2,195
Other contingent financing obligations	27,066	1,929
Total outgoing cash flows		**55,206**
Incoming cash flows		
Secured loans	380	144
Inflows from regularly repaid exposures	7,945	5,542
Other incoming cash flows	20,333	15,724
Total incoming cash flows	28,658	**21,410**

	Total adjusted value[4]
Total high-quality liquid assets	**39,938**
Total outgoing cash flows, net	**33,796**
Liquidity coverage ratio (%)	**118**

(1) Information is presented in terms of simple averages of daily observations during the reported quarter. The number of observations used in calculating the averages in the fourth quarter of 2017 is 77.

(2) Unweighted values are accounted for as outstanding balances payable or which may be payable by the holder, within 30 days (for both inflows and outflows).

(3) Weighted values are accounted for after applying appropriate security factors or inflow / outflow rates (for inflows and outflows).

(4) Adjusted value are calculated after applying: Safety factors and inflow / outflow rates; and all applicable restrictions (i.e. restriction on High-Quality Liquid Assets and restriction on inflows, as specified in Proper Conduct of Banking Business Directive 221).

Key factors that impact the results of liquidity coverage ratio

The major factors affecting the liquidity coverage ratio results are composition of Bank sources and uses. High-Quality Liquid Assets ("HQLA") are Level 1 assets, which are typically highly negotiable and associated with low risk. These include cash, current accounts and deposits with central banks, debentures of sovereigns with a 0% risk weighting and debentures of the State of Israel. Cash outflows primarily consist of unsecured wholesale financing – deposits which corporations and financial institutions deposited with the Bank, as well as outflows with respect to exposure to derivatives. Cash inflows primarily consist of credit receipts and inflows with respect to exposure to derivatives.

The ratio is primarily cyclical and may be forecast based on internal estimates by the Bank. The key factor which affects evolution of this ratio over time is growth in Bank business, both in raising and management of source composition and increase in uses. There is some volatility between days of the month, due to current activity of clients and interchangeability between NIS and foreign currency, primarily due to activity in NIS / foreign currency derivatives.

Composition of high quality liquid assets (HQLA)

Below are details of liquid assets by level, as required by Directive 221 (NIS in millions):

	December 31, 2018	Average for fourth quarter of 2018
Level 1 assets	45,532	40,559
Level 2a assets	13	13
Level 2b assets	–	–
Total HQLA	45,545	40,572

There is a regulatory limi applicable to the Los Angeles branch, with regard to use of liquidity reserve by this entity; Bank scenarios assume use of branch liquidity in conformity with this limit.

Composition of pledged and un-pledged available assets:

Balances as of December 31, 2018	**Total balance on balance sheet**	**Of which: Pledged**	**Of which: Un-pledged**
Cash and deposits with central banks	41,331	41	41,290
Debentures of the Government of Israel	8,625	345	8,280
Debentures of foreign governments	1,862	285	1,577
Debentures of foreign others	502	–	502
Total	52,320	671	51,649

Balances as of December 31, 2017	**Total balance on balance sheet**	**Of which: Pledged**	**Of which: Un-pledged**
Cash and deposits with central banks	38,367	48	38,319
Debentures of the Government of Israel	7,612	332	7,280
Debentures of foreign governments	2,406	214	2,192
Debentures of foreign others	16	–	16
Total	48,401	594	47,807

Developments in liquidity coverage ratio

In the fourth quarter of 2018, the Bank maintained appropriate liquidity by investing excess liquidity in liquid assets of very high quality – Level 1 assets. The average (consolidated) liquidity coverage ratio for the fourth quarter of 2018 was 116%. In this quarter, there were no recorded deviations from ratio restrictions.

In recent years, ISA has taken steps to regulate the ETN market in Israel and to increase its supervision, through an amendment to the Mutual Investment Act. This amendment, approved by the Knesset Finance Committee on May 1, 2018, which became effective in early October 2018, applies the Mutual Investment Act to ETNs. This Act stipulates restrictions on holding of various assets, hence the amendment impacted the deposit mix at banks of these entities. In the reported period, the average liquidity coverage ratio decreased by 5 basis points compared to the third quarter. The decrease is primarily due to the impact of an amendment to the Mutual Investment Act.

As from early 2018, the Bank applies Directive 221 with regard to identification and handling of operational deposits.

On July 2, 2018, the Bank of Israel issued a revision of several Proper Conduct of Banking Business Directive s (203, 313, 221 and 470) which concern credit card issuers. The key revision in these regulations is a significant reduction in current liquidity requirements for credit card issuers. These regulations are effective as from February 1, 2019.

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 debentures and 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 clients, deposits with unique attributes, which allow clients to benefit from relatively high interest over the long term with optional liquidity during the deposit term. In 2018, 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, client type, individual depositor, number of clients, product, currency and average deposit term. A "super-benchmark" was defined, which averages all indicators related to concentration of financing sources. Current management of source composition includes setting policies 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

Operational risk is material, since it exists across all operating segments and Bank units. Operational risk may potentially impact earnings, revenues, capital and reputation of the Bank and is inter-related to 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) and security event. Therefore, efficient management of this risk is required for risks management processes at the Bank.

Operational risk is inherent in all products, activities, processes and systems. 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, based on the Basel principles: Embezzlement (Bank defrauded by employees), external fraud (Bank defrauded by client), work practices and work environment safety (loss due to activity incompatible with laws or labor agreements), practices involving clients, products and businesses (failure to meet obligations to client), damage to physical assets, performance, distribution and process management, business disruption and system failures.

The Bank manages and monitors operational risk based on these categories.

Operational risk management – objectives and policies

The policy on operational risks management framework specifies the principles used by the Bank to identify, manage, measure, monitor and control operational risks on a regular basis. 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 lines of defense, and the importance of deploying an appropriate culture for management of operational risk at the Bank and Group in conformity with Bank of Israel directives: Directive350 "Operating risks management" and Directive310 "Risk management", which specify the overall risk management framework, and the Basel document "Principles for management of operational risk" (dated June 2011), which specify the rules for proper management of operational risk.

The Bank framework for handling operational 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 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 operational 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 conditions. 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 actuall losses and potential losses, at the overall portfolio level and by risk category. 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, as identified in risk assessment surveys and in the heat map. This activity is an on-going process designed 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 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 also 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 strives to specify, where possible, Key Risk Indicators (KRI) in order to identify potential risks before they materialize. 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 operational 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 applies a range of business rules designed to identify unusual activity. Handling of fraud and embezzlement is in conformity with a specific operational risks management framework policy document, using a framework which integrates several entities at the Bank: Risks Controls, information security and cyber, human resources 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 in recent years have increased legislator awareness and financial institutions' awareness 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.
- Operational risk may potentially impact earnings, revenues, capital and reputation of the Bank.
- Operational risk has inter-relationships with other risks, such as market risk, credit risk, liquidity risk, reputation risk and other risks. Thus, for example, an operational risk event may cause reputation risk to materialize, after which the Bank may face a liquidity event.
- A significant share of operating failures has very low probability but relatively large damage potential – which may even threaten Bank stability.

- Operational 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), security event.

In 2018 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, exppsing the Bank to significant operational risk. Such risk requires active, forward-looking action to manage and to minimize the potential impact.

The Bank acts to measure and identify opeational 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 heat maps, 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 – the Bank is about to complete a process to review an advanced system for fraud monitoring.

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 operating 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 operational 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 and, in particular, the Operational Risks Unit of 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 maintenance 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 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 Process Engineering Department, under the Client Assets Planning and Operations Division, is responsible for overall management of business continuity, or on-going Bank preparedness for business continuity in case of emergency.
- The SOX Department, of the Accounting and Financial Reporting Division, is responsible for effectiveness of controls and procedures concerning disclosure and effectiveness of internal controls over financial reporting at the Bank.
- The Training Department, of the Human Resources Division, acts to reinforce professional knowledge and to reduce operating failures arising from lack of knowledge and awareness.
- 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 Human Resources and Administration 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 Resources and Administration Division, supports handling of operational risk at various Bank units.
- 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.

Operational risk includes business continuity risk, information security and cyber defense risk, IT risk and legal risk, as described below.

Business continuity

The Bank applies Proper Conduct of Banking Business Directive 355 concerning "Management of business continuity".

in the fourth quarter of 2018, the Bank continued to implement the exercise plan, including the following: Joint exercise with the Bank of Israel currency unit and cash center, operation of a mobile branch, relocating branch staff to work at the banking center, system operation from the backup site and other exercises. In order to intensify the learning with regard to business continuity, an eLearning kit was sent to branch staff and the branch emergency folder and emergency procedures were refreshed.

In the fourth quarter of 2018, the Bank completed a business implications analysis (BIA) process, as part of the multi-annual maintenance plan, and the conclusions there from were presented to and approved by management. Furthermore, a report was presented to the Board of Directors with regard to implementation of the business continuity plan, including ratification of the policy document on business continuity and discussion of the effectiveness of the working framework for business continuity management.

Information security and cyber security

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 has approved strategy and comprehensive cyber defense policies and has specified the defense lines for their implementation , has appointed an Information Security and Cyber Defense Manager, reporting 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, monitoring the implementation of this work plan and review of the effectiveness of systems and processes for information security and cyber defense.

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, client 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 client and business activities in the online domain, in conformity with Proper Conduct of Banking Business 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, resilience 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 clients 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.

The direct banking systems at the Bank include authentication processes and tools in conformity with Proper Conduct of Banking Business Directive 367.

In the fourth quarter of 2018, a small number of fraud attempts against clients were identified (through fishing attacks), which resulted in stealing their account credentials in order to conduct unauthorized transactions in their accounts. Most of these attempts to conduct unauthorized transactions were identified and blocked by the defense systems applied by the Bank to protect its client accounts. However, a damage amounting to NIS 33 thousand was caused (and covered by the Bank) due to several individual transfers not properly identified during these fraud attempts. The Bank immediately notified the clients whose accounts showed suspicious login or transfer attempts.

This event was reported to relevant parties at the Bank and elsewhere. Other than the foregoing, no damage was incurred by the Bank nor by Bank clients.

Information technology 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 Regulation 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". The Bank has minimal risk appetite for this risk, which is included, as noted above, under management of risk appetite under routine conditions and under stress conditions, for operational risk.

Given the current developments in the financial market and the age of existing systems at the Bank, the Bank decided to move to a new platform. The Bank has completed the feasibility review process for transition of the Bank's capital market system to the capital market module of the new platform. On December 27, 2018, the software licensing agreement was signed and in the coming month, an agreement should be signed for implementation of a new capital market system at the Bank.

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".

The Bank regards legal risk in its wider definition, with regard to Bank conduct in its relationships with various stake holders (clients, suppliers, other third parties etc.) 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 Risk Owner. 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.

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 Owner of the Bank with regard to any legal risks identified in these entities.

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

For information about approval by the Bank’s Board of Directors of signing a DPA agreement with the US Department of Justice to conclude the investigation into the Bank Group's business with its US clients, see Note 26.C.12 to the financial statements.

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

- **First line of defense** Includes all business and operational units at the Bank. These units are responsible for managing operational risk in accordance with principles specified in the operational risk policy document. 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, and in particular the Operational Risks Department of the Risks Control Division, is tasked with a comprehensive view and monitoring of the operational risk handling framework and with responsibility for handling risk in view of activities in the first line, through a range of processes, tools and methods, including: Locating major risk hubs in business operations of the first line, through collection of actual operating failure data and conducting specific surveys for identification of potential future failures, as well as adapting the operational risk handling framework to Bank needs, in line with business development at the Bank and with regulatory requirements.

The Division also strives for integration between various entities at the Bank, which have monitoring roles for risks adjacent to operational risk (compliance, business continuity, technology, information security and cyber security, SOX) as part of the deployment of the Bank's internal control system.

- The second line of defense for cyber and information security risk is 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 Process Engineering Division is responsible for overall management of business continuity, or on-going Bank preparedness for business continuity in case of emergency.
- The SOX Department of the Accounting Division is responsible for effectiveness of controls and procedures concerning disclosure and effectiveness of internal controls over financial reporting at the Bank.
- The Training Department of the Human Resources Division acts to reinforce professional knowledge and to reduce operating failures arising from lack of knowledge and awareness.
- **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 committees and involvement with the Internal Controls Forum.

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 operational 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.
- Operational Risks Steering Committee – serves as an advisory committee to the Chief Risks Officer with regard to operational risks 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 (Business, Finance, Retail, Planning and Operations, Client Assets and Technology). These forums are intended to discuss internal controls aspects, in particular aspects arising from the operational risk management framework, including results of risks assessment surveys, material events and results of debriefs.

For risk management at Bank units, the Bank appointed operational risk trustees. The operational risk trustees, most of whom operate in the first line of defense, are responsible for handling operational risk and IT risk at their unit. Trustees report any event related to operational risk into a special system – the Operational Risks Portal (PASTEL). This system is used by the Bank for analysis and reporting of operational risk by different criteria. 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.

Operational risk mitigation

Due to the significance of operational 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 operational 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 revised processes and 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 a time 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 has a specific policies document which governs insurance aspects related to Bank operations.

Capital allocation

The Bank allocates capital with respect to operational 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 of legal or regulatory sanctions, material financial loss or impact 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 Directive 308, which applies 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 ISA Enforcement Proceeding Streamlining Act (Legislative Amendments), 2011; the Securities Law 1968; Mutual Investment Act, 1994; Arrangement of Engagement in Investment Consultancy, Investment Marketing and Management of Portfolios Act, 1995 (hereinafter: "the Advisory Act"); hereinafter jointly – "securities laws" as well as the Restrictive Trade Practices Act, 1988. Compliance with these laws is also addressed in conjunction with the "Internal Enforcement Program" for Securities Law and for the Restrictive Trade Practices Act, respectively.

Compliance risk includes the subject of fairness

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 specified that any faults discovered in compliance with statutory provisions would 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 compliance and regulatory Risk Manager for the Bank is the Manager, Risks Control Division. The Compliance Officer is responsible for continuous management of this risk.

Compliance and regulation risk is managed by three lines of defense:

The first line of defense includes business units and other risk-taking units at the Bank, which are responsible for reducing and controlling compliance risk. Shall act with responsibility, fairness and transparency vis-à-vis their clients and would place the clients at the center of their banking activities.

The second line of defense includes the Risks Control Division and the Compliance Division, as well as other "second line" units (Human Resources and Administration Division, Accounting and Financial Reporting Division, Planning and Operations Division, Legal Division, Bank Secretary), which are responsible for some compliance areas. The Compliance Division is responsible for deployment of an organizational culture of compliance with procedures and with the Law and fair dealing with clients 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 departments in the second line of defense.

The third line of defense includes Internal Audit, which conducts independent audit of the Compliance Function in accordance with the multi-annual plan, including review of the appropriateness and effectiveness of the Compliance Function, including review of controls in line with estimated risk level.

The Manager, Risks Control Division and CRO of the Bank serves as the person in charge of enforcement of securities law and anti-trust law. As stipulated by Directive 308 ("Compliance Officer"), the Bank appointed a Chief Compliance Officer, who heads the Compliance Division (reporting to the Manager, Risks Control Division). Their role is to assist the Bank’s Board of Directors and Bank management in effectively managing compliance risk.

The Bank operates in conformity with policies on compliance and regulation risk management, approved by the Bank's Board of Directors. 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. Compliance risk is managed by identification, documentation and assessment of compliance risk associated with business operations of the Bank, including developments related to new products, business conduct, lines of business or new clients, or to material changes to any of the above, through various measurement methods.

The Bank deals fairly with all stake holders. The value of fairness is enterprise-wide and is based on application of basic values: integrity, fairness and transparency. The Bank strives to maintain a fair relationship with its clients and with other stake holders, places the client at the center of its business operations and strictly adheres to business fairness in all its operations. Fairness is a basic value in the Bank's Code of Ethics.

The Bank also maintains effective enforcement programs for securities law and for anti-trust 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 to avoid their violation. The Chief Enforcement Officer, through the Compliance Officer, handles issues of Bank compliance with obligations arising from securities law in general and in accordance with the enforcement program in particular. The Chief Enforcement Officer is the person responsible, on behalf of Bank management, for on-going implementation of the enforcement program and its deployment across the Bank.

The Compliance Division 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. 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, as noted above, the Compliance Officer maintains a control system in line with control plans. These controls are designed to verify compliance of Bank branches and departments with various statutory provisions, as well as the effectiveness of controls applied by the various business and headquarters departments.

The inherent compliance risk is not low, due to increased regulation and new directives issued with high frequency.

Compliance risk remained unchanged in 2018 and is defined as low-medium; the Bank believes it is trending downwards.

The decrease is due, *inter alia*, to further addressing the risks classified as High and further increase in control and training and increased efficiency of work processes in this area, including re-organization of the Compliance Division and creation of a specialized Compliance Risk Management Department. This is in view of further increased regulatory activity reflected, *inter alia*, in new directives being issued frequently, which the Bank is preparing for.

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 clients 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 clients, AML and terror financing laws, sanctions imposed by international bodies and foreign authorities or other laws. Cross-border risk also applies at the Bank's overseas affiliates; in transactions with clients who are foreign residents; in business operations conducted by Bank representatives in foreign countries; and with regard to funds of Israeli clients invested overseas.

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 Bank has specified a multi-annual work plan for the Compliance Function, which includes required action for reducing compliance risk across the Bank.

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

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

The first line of defense includes business units and other risk-taking units at the Bank, is responsible for reducing and controlling cross-border risk. The first line of defense includes International Operations, which is responsible for operations of tourist and private banking branches in Israel and for overseas affiliates of the Bank, through the local compliance unit of each affiliate. The first line of defense also includes the Retail Division and the Business Division in their operations involving relevant clients.

The second line of defense is based on the Compliance Division 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 Division is assisted by the Legal Division, the Planning 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.

The third line of defense is Internal Audit, which conducts periodic audit, in accordance with the multi-annual plan, of the management of cross-border risk in accordance with the multi-annual plan.

The Bank applies the statutory provisions for implementation of the FATCA agreement and provides timely reports to the Israeli Tax Authority/ The Bank is compliant with terms and conditions of the QI agreement and is preparing to implement the CRS regulations.

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 subject to international sanctions.

The Bank has branches that specialize in managing accounts for foreign-resident clients. New accounts for foreign residents are opened at these branches. Current foreign-resident clients with a significant balance were relocated from other Bank branches to these specialized branches.

Cross-border risk remained unchanged in 2018 and is defined as low-medium. The Bank continues to prepare and to manage risk by, *inter alia*, revising procedures, automating work processes, delivering training and the activities as described above.

Anti-money laundering risk

AML and terror financing risk is the risk of financial loss 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 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 clients that may be exposed to bribery and corruption. The Bank also avoids any activities opposed to the international sanctions regime of OFAC (of the US Department of Treasury) and of the European Union.

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.

When opening an account, as well as during normal business operations, the Bank acts to identify clients who may be exposed to offering, accepting or brokering bribes.

In early 2018, Proper Conduct of Banking Business Directive 411 "AML and Terror Financing Risk Management" became effective. The Bank implements this directive, which introduced significant changes to definitions, Know Your Client, setting risk levels and other changes, with emphasis on risk-based management.

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

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

The Compliance Division acts to deploy statutory provisions on this matter.

AML 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. These operations include regional compliance controllers, who apply current controls to branches, in conformity with the Control Specification of the Compliance Division, supporting compliance aspects in the branch network.

Second line of defense – consists of the Compliance 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. The Legal Division is responsible for management of general statutory provisions applicable to the Bank, as part of the second line of defense. The Compliance Division, guided by and in coordination with the Legal Division, reviews the regulatory provisions in this field and acts to implement them, with concurrent assessment of AML risk, in conjunction with the Bank Group's overall compliance risk.

The third line of defense includes Internal Audit, which conducts independent audit of the first line of defense and of the Compliance Function in accordance with the multi-annual plan, including review of the appropriateness and effectiveness of the Compliance Function, including review of controls in line with estimated risk level.

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 clients that may be exposed to bribery and corruption. The Bank also avoids any activities opposed to the international sanctions regime of OFAC (of the US Department of Treasury) and of the European Union.

The Bank operates different computer systems for identifying unusual activity and for monitoring the handling of subjective reports provided to the AML Authority by the Compliance Division. In early 2018, the Bank started gradual operation of a new AML system – MEA, that supersedes existing systems for identification of unusual activity and for reporting.

The Division also applies various controls to activity in different accounts, based on their risk profile, and also provides regular advice to branches and delivers customized training to various Bank employees, based on their position. Moreover, in line with Bank policy, a knowledge test is administered once every two years to all Bank employees.

In 2018, the Bank conducted an annual risk assessment, in conformity with Directive 411, based *inter alia* on "Key findings of money laundering risk assessment – financial system, 2017", as published by the Ministry of Justice.

In late 2018, Israel became a permanent member of FATF.

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.

When opening an account, as well as during normal business operations, the Bank acts to identify clients who may be exposed to offering, accepting or brokering bribes.

AML risk remained unchanged in 2018, due to continued intensive training and deployment activity, along with risk-focused controls and taking effective action to avoid recurrence of extraordinary events and compliance failures. The new AML system – MEA – in order to identify unusual activity and for reporting, is operating in branches on regular basis and enables close control over the banking activity. This is along with the increase in business activity and in view of further increased regulatory activity reflected, *inter alia*, in new directives being issued frequently, which the Bank is preparing for.

Reputation 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 operational risk event. Furthermore, impact to Bank reputation may bring about the materialization of other risks, in particular liquidity risk – with growing demand by clients 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 Reputational 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 Owner and stipulates how the risk should be addressed under normal conditions and in case of a stress event. The Risk Owner 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 Risk 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 clients and the business community. This measurement is based on specific quarterly studies which review public opinion (Bank clients and those of other banks), on monthly monitoring of on line discourse, on satisfaction surveys among Bank clients etc. Reports with regard to reputation 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.

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

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.

The Bank operates in conformity with the outline of a five-year strategic plan, most recently approved by the Bank's Board of Directors on November 21, 2016, whose principles have been made public. Material deviation from Bank strategy is subject to approval by the Bank's Board of Directors. This risk is monitored by the Planning, Operations and Client Asset Division (hereinafter: "the Planning and Operations Division") and is challenged by the Risks Control Division.

The Business-Strategic Risk Owner is the President & CEO; based on his guidance, management periodically reviews the implementation of the strategy: monitoring of 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 Planning and Operations 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.

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

For information about approval by the Bank's Board of Directors of signing a DPA agreement with the US Department of Justice to conclude the investigation into the Bank Group's business with its US clients, see Note 26.C.12 to the financial statements.

In conformity with the resolution by the Bank's Board of Directors dated November 27, 2017, the Bank signed an agreement with Bank Igud shareholders to acquire a 100% interest in Bank Igud and to merge it with the Bank by way of exchange of shares. On May 30, 2018, the acting Anti-Trust Supervisor issued a decision objecting to the merger of Bank Igud with and into Bank Mizrahi-Tefahot. Since the conditions precedent for publication of the Tender Offer have not been fulfilled, in conformity with provisions of the Agreement, the Agreement is deemed null and void as of June 27, 2018, and none of the parties has any obligations pursuant to the Agreement nor any claim against the other parties to the Agreement. On August 5, 2018, the Bank and shareholders of Bank Igud signed an addendum to the agreement, whereby the parties agreed to appeal the decision, jointly with Bank Igud. Such an appeal was filed with the Anti-Trust Court on September 6, 2018.

Realization of the Igud acquisition transaction, should it be realized, would challenge the Bank, due to the operating merger of the two banks, along with continued achievement of objectives in Mizrahi Tefahot's current strategic plan.

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 not under the Bank's control.

Developments in the business environment which may impact strategic risk

- The global economy has been unstable in recent years, with economic growth moderating, along with a near-zero interest rate environment and moderate growth in global demand, against the backdrop of tension in USA-China trade relations, as well as increased geo-political tension around the world. The economic growth rate in Israel has slowed down in the past two years, due to some moderation in private consumption growth. The Bank regularly monitors the potential implications of a global and local economic slow-down, which may lead to deterioration in the financial standing of households or may impact business activity in various economic sectors. In particular, the Bank is preparing for the potential for continued interest rate increases in the Israeli economy, due to the higher interest rate environment in the USA.
- Growing competition in the financial system, in view of expanded operations of non-banking entities, especially in the credit market and given the entry of technology companies into the financial brokerage area, in particular for the household and small business segments.
- The impact of regulatory provisions in core areas of banking operations, including the potential impact of the Increased Competition and Reduced Concentration in Israeli Banking Act. The objective of this Act is to increase competition in retail banking services, with reference to both supply (adding new players) and demand (increasing consumer capacity to compare the costs of financial services).

Remuneration

Following the enactment of the Remuneration of officers in financial corporations act (Special permission and non-allowance of expenses for tax purposes with respect to excessive remuneration), 2016 ("the Executive Remuneration Act") and following revisions to Proper Banking Conduct Directive 301A on remuneration, dated February 14, 2017 the Bank approved a revised officer remuneration policy (hereinafter: "the revised remuneration policy"), effective for three (3) years as from January 1, 2017.

Name, composition and authority of entity supervising remuneration

The Board of Directors' Remuneration Committee is the entity which supervises remuneration. This Committee consists of 3 Board members. 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") and a majority of its members are external Board members.

The Remuneration Committee discusses and formulates remuneration policy for Bank officers and employees and makes its recommendations to the Board of Directors. In this regard, the Committee discusses and reviews the implementation of the policy, making recommendations as to revision of the policy. 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 by The law firm of "Meitar, Liqvornik, Geva, Leshem, Tal Attorneys at Law" as legal counsel, and consulting on the impact of remuneration on corporate governance by Professor S. Henes.

Remuneration policy scope

As noted above, a revised remuneration policy was specified for Bank officers. In conformity with 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 officer remuneration policy – the Remuneration Committee recommended and the Board of Directors approved in March 2017 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, and other than the subsidiary in Switzerland.

Employees considered senior officers and other key employees

The remuneration plan distinguishes between business officers and gatekeepers, for whom a "monetary preservation bonus" 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 2017-2019.

The group of key employees at the Bank, other than officers, consists in 2018 of 18 managers, of which 16 managers in subsidiaries (other than Bank Yahav).

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

The objective of the remuneration policy for Bank officers and 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.

In 2018, no changes were made to the current remuneration policy nor to the remuneration policy for all Bank employees.

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 recommendations were made 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

The annual key performance indicators (KPI) of senior Bank managers, which are challenged by the Bank's Chief Risks Officer, include reference to issues related to risk management, and in particular compliance risk and steps to reduce such risk, within the domain of the manager's 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, granted in advance, in three annual lots – for each period of the remuneration policy, as described in the outline of offering to employees, as approved by the Board of Directors on August 31, 2017, 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. For the employee offering outline dated 2017, see Immediate Report 2017-01-088584 (included herein by way of reference) (hereinafter: "the outline").

Note that in 2018, the Bank did not allocate any options to managers.

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 capital 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 deposits to loans. 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 of the annual lots, would be determined based on the four Bank-wide benchmarks, as described above (for officers other than President & CEO or Chairman of the Board of Directors, the cumulative weighting of Bank-wide benchmarks is 42%, individual performance objectives are weighted at a maximum of 40% and supervisor evaluation is weighted at a maximum of 30%).

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 employee offering outline, options have been allotted to officers, to other key employees and to other managers at the Bank and at Bank subsidiaries, with respect to the policy period. As for officers and key employees, the outline stipulates that the number of options for which they would be eligible with respect to each annual lot, would vest in three equal parts over three 18-month periods starting on three consecutive years as from the date of eligibility (one year after the financial statements for the year for which the lot has been allotted have been made public). Threshold conditions and steps have been specified with regard to eligibility for exercise in deferred periods, too.

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.

As for managers other than key employees, the three lots awarded them would vest on the 2nd anniversary of the option award date and they may be exercised over a period of 5 years. Eligibility for options would be based on the Bank-wide criteria, which are identical for officers and for other key employees.

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 clients, 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):

All of 2018

		Senior Officers	Other key employees
Fixed remuneration	Employee headcount	14	18
	Total fixed remuneration	26	17
	Of which: Cash-based	26	17
	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	18
	Total variable remuneration	5	3
	Of which: Cash-based	5	3
	Of which: Deferred	1	–
	Of which: Shares or other share-based instruments	–	–
	Of which: Deferred	–	–
	Of which: Other forms	–	–
	Of which: Deferred	–	–
Total remuneration		31	20

All of 2017

		Senior Officers	Other key employees
Fixed remuneration	Employee headcount	14	17
	Total fixed remuneration	24	15
	Of which: Cash-based	24	15
	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	17
	Total variable remuneration	12	3
	Of which: Cash-based	6	2
	Of which: Deferred	–	–
	Of which: Shares or other share-based instruments	6	1
	Of which: Deferred	6	1
	Of which: Other forms	–	–
	Of which: Deferred	–	–
Total remuneration		36	18

Below is information about deferred remuneration (NIS in millions):

All of 2018

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
Senior Officers					
Cash	1	1	–	–	–
Share-based	16	16	–	–	5
Cash-based instruments	–	–	–	–	–
Other	–	–	–	–	–
Other key employees					
Cash	–	–	–	–	1
Share-based	2	2	–	–	1
Cash-based instruments	–	–	–	–	–
Other	–	–	–	–	–
Total	**18**	**18**	**–**	**–**	**7**

All of 2017

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
Senior Officers					
Cash	–	–	–	–	–
Share-based	20	20	–	–	2
Cash-based instruments	–	–	–	–	–
Other	–	–	–	–	–
Other key employees					
Cash	1	1	–	–	–
Share-based	3	3	–	–	1
Cash-based instruments	–	–	–	–	–
Other	–	–	–	–	–
Total	**24**	**24**	**–**	**–**	**3**

In 2018 and in 2017, no special payments were made to senior officers and other key employees.

Additions

Addendum A – Composition of supervisory capital (NIS in millions)

		2018 Balance	2018 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	2017 Balance	2017 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	References from step 2
Tier I shareholders' equity: Instruments and retained earnings						
1	Ordinary share capital issued by the banking corporation and ordinary share premium for shares included in Tier I capital	2,245	–	2,245	–	1+2
2	Retained earnings, including dividends proposed or declared after the balance sheet date	12,782	–	11,828	5	3
3	Accumulated other comprehensive income and retained earnings for which disclosure has been given	(186)	–	(93)	26	4
4	Ordinary shares issued by consolidated subsidiaries of the banking corporation, which are held by a third party (non-controlling interests)	431	–	451	50	5
5	**Tier I capital before regulatory adjustments and deductions**	15,272	–	14,431	81	
Tier I shareholders' equity: Regulatory adjustments and deductions						
6	Stabilizing valuation adjustments	–	–	–	–	0
7	Goodwill, net of related deferred tax liability, if applicable	87	–	87	–	6
8	Other intangible assets, other than mortgage-servicing rights, net of related deferred tax liability	–	–	–	–	7+8
9	Deferred tax assets that rely on future profitability of the banking corporation for realization, excluding those arising from temporary differences	–	–	–	–	9
10	Accumulated other comprehensive income with respect to cash flows hedging of items not listed at fair value on the balance sheet	4	–	3	1	10
11	Shortfall of provisions to expected losses	–	–	–	–	
12	Increase in shareholders' equity due to securitization transactions	–	–	–	–	
13	Unrealized gains / losses from changes to fair value of liabilities arising from change to own credit risk of the banking corporation. In addition, with regard to liabilities with respect to derivative instruments, all debt value adjustments (DVA) arising from own credit risk of the banking corporation is to be deducted	9	–	8	2	11
14	Net assets with respect to defined-benefit plans, net of deferred tax liabilities to be settled should the asset become impaired or be disposed in conformity with Public Reporting Directives	–	–	–	–	12+13

		2018 Balance	2018 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	2017 Balance	2017 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	References from step 2
15	Investment in own ordinary shares, held directly or indirectly (including commitment to purchase shares subject to contractual obligations)	–	–	–	–	
16	Reciprocal cross-holdings in ordinary shares of financial corporations	–	–	–	–	
17	Investments in the capital of financial corporations not consolidated in the public financial statements of the banking corporation, where the banking corporation does not hold more than 10% of the issued ordinary share capital of the financial corporation	–	–	–	–	14
18	Investments in the capital of financial corporations not consolidated in the public financial statements of the banking corporation, where the banking corporation holds more than 10% of the issued ordinary share capital of the financial corporation	–	–	–	–	
19	Mortgage servicing rights whose amount exceeds 10% of Tier I capital	–	–	–	–	
20	Deferred tax assets arising from temporary differences, whose amount exceeds 10% of Tier I capital	–	–	–	–	
21	Amount of mortgage servicing rights, deferred tax assets arising from temporary differences and investments that exceed 10% of the ordinary share capital issued by financial corporations, which exceeds 15% of Tier I capital of the banking corporation	–	–	–	–	
22	Of which: With respect to investments that exceed 10% of the ordinary share capital issued by financial corporations	–	–	–	–	
23	Of which: With respect to mortgage servicing rights	–	–	–	–	
24	Of which: Deferred tax assets arising from temporary differences	–	–	–	–	
25	Regulatory adjustments and other deductions stipulated by the Supervisor of Banks	–	–	–	–	
25.A	Of which: With respect to investments in capital of financial corporations	–	–	–	–	
25.B	Of which: With respect to mortgage servicing rights	–	–	–	–	
25.C	Of which: Additional regulatory adjustments to Tier I capital, not included in sections 25.A and 25.B.	–	–	–	–	
26	Deductions applicable to Tier I capital, due to insufficient additional Tier I and Tier II capital to cover deductions	–	–	–	–	
27	**Total regulatory adjustments to and deductions from Tier I capital**	**100**	**–**	**98**	**3**	
28	**Tier I shareholders' equity**	**15,172**	**–**	**14,333**	**78**	

Additional Tier I capital: Instruments

		2018 Balance	2018 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	2017 Balance	2017 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	References from step 2
29	Additional Tier I capital instruments issued by the banking corporation and premium on such instruments	–	–	–	–	
30	Of which: Classified as equity in conformity with Public Reporting Regulations	–	–	–	–	15a+16a
31	Of which: Classified as liabilities in conformity with Public Reporting Directives	–	–	–	–	
32	Additional Tier I capital instruments issued by subsidiaries of the banking corporation, held by third party investors	–	–	–	–	17
33	**Tier I capital, before deductions**	**–**	**–**	**–**	**–**	
Additional Tier I capital: Instruments						
34	Investment in own additional Tier I capital instruments, held directly or indirectly (including commitment to purchase such instruments subject to contractual obligations)	–	–	–	–	
35	Reciprocal cross-holdings in additional Tier I capital instruments	–	–	–	–	
36	Investments in the capital of financial corporations not consolidated in the public financial statements of the banking corporation, where the banking corporation does not hold more than 10% of the issued ordinary share capital of the financial corporation	–	–	–	–	
37	Investments in the capital of financial corporations not consolidated in the public financial statements of the banking corporation, where the banking corporation holds more than 10% of the issued ordinary share capital of the financial corporation	–	–	–	–	
38	Other deductions stipulated by the Supervisor of Banks	–	–	–	–	
38.A	Of which: With respect to investments in capital of financial corporations	–	–	–	–	
38.B	Of which: Additional regulatory adjustments to Tier I capital, not included in section 38.A	–	–	–	–	
39	Deductions applicable to additional Tier I capital, due to insufficient Tier II capital to cover deductions	–	–	–	–	
40	**Total deductions from additional Tier I capital**	**–**	**–**	**–**	**–**	
41	**Additional Tier I capital**	**–**	**–**	**–**	**–**	
42	**Tier I capital**	**15,172**	**–**	**14,333**	**84**	
Tier II capital: Instruments and provisions						
43	Instruments issued by the banking corporation (not included in Tier I capital) and premium on such instruments	501	–	1,259	–	18a
	Tier II capital instruments issued by the banking corporation, eligible for inclusion in regulatory capital during transitional period	1,786	1,786	2,233	2,233	
44	Tier II capital instruments issued by subsidiaries of the banking corporation to third party investors	1,725	–	329	–	19

		2018 Balance	2018 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	2017 Balance	2017 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	References from step 2
45	Group provisions for credit losses by effect of related tax	1,503	–	1,430	–	20
46	**Tier II capital, before deductions**	**5,515**	**1,786**	**5,251**	**2,233**	
Tier II capital: Deductions						
47	Investment in own Tier II capital instruments, held directly or indirectly (including commitment to purchase such instruments subject to contractual obligations)	–	–	–	–	
48	Reciprocal cross-holdings in Tier II capital instruments of financial corporations	–	–	–	–	
49	Investments in the capital of financial corporations not consolidated in the public financial statements of the banking corporation, where the banking corporation does not hold more than 10% of the issued ordinary share capital of the financial corporation	–	–	–	–	
50	Investments in the capital of financial corporations not consolidated in the public financial statements of the banking corporation, where the banking corporation holds more than 10% of the issued ordinary share capital of the financial corporation	–	–	–	–	
51	Other deductions stipulated by the Supervisor of Banks	–	–	–	–	
51.A	Of which: With respect to investments in capital of financial corporations	–	–	–	–	
51.B	Of which: Other deductions from Tier II capital, not included in section 51.A	**–**	**–**	**–**	**–**	
52	**Total deductions from Tier II capital**	**–**	**–**	**–**	**–**	
53	**Tier II capital**	**5,515**	**1,786**	**5,251**	**2,233**	
54	**Total equity**	**20,687**	**1,786**	**19,584**	**2,317**	
55	**Total weighted risk assets**	**151,627**	**–**	**140,524**	**–**	
Capital ratios and capital conservation buffer						
56	Tier I shareholders' equity	10.01%		10.20%	–	
57	Tier I capital	10.01%		10.20%	–	
58	Total capital	13.64%		13.94%	–	
59	Not applicable					
60	Not applicable					
61	Not applicable					
62	Not applicable					
63	Not applicable					
Minimum requirements stipulated by the Supervisor of Banks						
64	Minimum Tier I shareholders' equity ratio required by Supervisor of Banks	9.84%		9.86%	–	
65	Minimum Tier I capital ratio required by Supervisor of Banks	9.84%		9.86%	–	
66	Minimum overall capital ratio required by Supervisor of Banks	–		–	–	
Amounts below deduction threshold (before risk weighting)						
67	Investments in capital of financial corporations (other than banking corporations and their subsidiaries), that do not exceed 10% of ordinary share capital	–	–	–	–	

		2018 Balance	2018 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	2017 Balance	2017 Amounts not deducted from equity, subject to required treatment prior to adoption of Directive 202, in conformity with Basel III	References from step 2
	issued by the financial corporation and that are below the deduction threshold					
68	Investments in Tier I capital of financial corporations (other than banking corporations and their subsidiaries , that do exceed 10% of ordinary share capital issued by the financial corporation and that are below the deduction threshold	2	–	2	–	
69	Mortgage servicing rights	–	–	–	–	
70	Deferred tax assets arising from temporary differences, that are below the deduction threshold	1,071	–	940	–	
Cap for inclusion of provisions in Tier II						
71	Provision eligible for inclusion in Tier II with respect to exposures subject to standardized approach, prior to application of cap	1,503	–	1,430	–	
72	Cap on inclusion of provisions in Tier II under standardized approach	1,750	–	1,625	–	
73	Provision eligible for inclusion in Tier II with respect to exposures subject to internal ratings-based approach, prior to application of cap	–	–	–	–	

Addendum B – Differences between accounting consolidation basis and supervisory consolidation basis

Below are differences between accounting consolidation basis and supervisory consolidation basis, and mapping of financial statements by supervisory risk categories:

As of December 31, 2018

	On-balance sheet balances as reported on published financial statements[(1)]	On-balance sheet balances of items: Subject to credit risk framework	On-balance sheet balances of items: Subject to counter-party credit risk framework	On-balance sheet balances of items: Subject to securitization framework	On-balance sheet balances of items: Subject to market risk framework[(2)]	On-balance sheet balances of items: Not subject to capital requirements, or subject to deduction from capital base
Assets						
Cash and deposits with banks	45,162	45,158	–	–	–	4
Securities	11,081	10,793	–	–	288	–
Securities loaned or acquired in resale agreements	26	26	–	–	–	–
Loans to the public	195,956	195,444	512	–	–	–
Provision for credit losses	(1,575)	(165)	–	–	–	(1,410)
Loans to the public, net	194,381	195,279	512	–	–	(1,410)
Loans to Governments	630	630	–	–	–	–
Investments in associated companies	32	32	–	–	–	–
Buildings and equipment	1,424	1,424	–	–	–	–
Intangible assets and goodwill	87	–	–	–	–	87
Assets with respect to derivative instruments	3,240	–	3,240	–	2,260	–
Other assets	1,810	1,662	–	–	–	148
Total assets	**257,873**	**255,004**	**3,752**	**–**	**2,548**	**(1,171)**
Liabilities						
Deposits from the public	199,492	–	–	–	–	199,492
Deposits from banks	625	–	–	–	–	625
Deposits from the Government	42	–	–	–	–	42
Securities loaned or sold in conjunction with repurchase agreements	–	–	–	–	–	–
Debentures and subordinated notes	30,616	–	–	–	–	30,616
Liabilities with respect to derivative instruments	3,661	–	3,661	–	2,266	–
Other liabilities	8,047	–	–	–	–	8,047
Total liabilities	**242,483**	**–**	**3,661**	**–**	**2,266**	**238,822**

Below are differences between accounting consolidation basis and supervisory consolidation basis, and mapping of financial statements by supervisory risk categories – Continued

As of December 31, 2017

	On-balance sheet balances as reported on published financial statements(1)	On-balance sheet balances of items: Subject to credit risk framework	On-balance sheet balances of items: Subject to counter-party credit risk framework	On-balance sheet balances of items: Subject to securitization framework	On-balance sheet balances of items: Subject to market risk framework(2)	On-balance sheet balances of items: Not subject to capital requirements, or subject to deduction from capital base
Assets						
Cash and deposits with banks	41,130	41,129	–	–	–	1
Securities	10,133	9,924	–	–	209	–
Securities loaned or acquired in resale agreements	76	76	–	–	–	–
Loans to the public	182,602	182,200	402	–	–	–
Provision for credit losses	(1,484)	(136)	–	–	–	(1,348)
Loans to the public, net	181,118	182,064	402	–	–	(1,348)
Loans to Governments	456	456	–	–	–	–
Investments in associated companies	32	32	–	–	–	–
Buildings and equipment	1,403	1,403	–	–	–	–
Intangible assets and goodwill	87	–	–	–	–	87
Assets with respect to derivative instruments	3,421	–	3,421	–	1,907	–
Other assets	1,716	1,504	–	–	–	212
Total assets	**239,572**	**236,588**	**3,823**	**–**	**2,116**	**(1,048)**
Liabilities						
Deposits from the public	183,573	–	–	–	–	183,573
Deposits from banks	1,125	–	–	–	–	1,125
Deposits from the Government	51	–	–	–	–	51
Securities loaned or sold in conjunction with repurchase agreements	–	–	–	–	–	–
Debentures and subordinated notes	29,923	–	–	–	–	29,923
Liabilities with respect to derivative instruments	3,082	–	3,082	–	1,767	–
Other liabilities	7,491	–	–	–	–	7,491
Total liabilities	**225,245**	**–**	**3,082**	**–**	**1,767**	**222,163**

(1) Accounting consolidation basis and supervisory consolidation basis are identical.
(2) Amounts exclude balances used to calculate foreign currency risk, including structural positions in foreign currency; for these balances, see Note 31 "Assets and liabilities by linkage basis".

Below are differences between accounting consolidation basis and supervisory consolidation basis, and mapping of financial statements by supervisory risk categories – Continued

As of December 31, 2017

	On-balance sheet balances as reported on published financial statements[(1)]	On-balance sheet balances of items: Subject to credit risk framework	On-balance sheet balances of items: Subject to counter-party credit risk framework	On-balance sheet balances of items: Subject to securitization framework	On-balance sheet balances of items: Subject to market risk framework[(2)]	On-balance sheet balances of items: Not subject to capital requirements, or subject to deduction from capital base
Assets						
Cash and deposits with banks	41,130	41,129	–	–	–	1
Securities	10,133	9,924	–	–	209	–
Securities loaned or acquired in resale agreements	76	76	–	–	–	–
Loans to the public	182,602	182,200	402	–	–	–
Provision for credit losses	(1,484)	(136)	–	–	–	(1,348)
Loans to the public, net	181,118	182,064	402	–	–	(1,348)
Loans to Governments	456	456	–	–	–	–
Investments in associated companies	32	32	–	–	–	–
Buildings and equipment	1,403	1,403	–	–	–	–
Intangible assets and goodwill	87	–	–	–	–	87
Assets with respect to derivative instruments	3,421	–	3,421	–	1,907	–
Other assets	1,716	1,504	–	–	–	212
Total assets	**239,572**	**236,588**	**3,823**	**–**	**2,116**	**(1,048)**
Liabilities						
Deposits from the public	183,573	–	–	–	–	183,573
Deposits from banks	1,125	–	–	–	–	1,125
Deposits from the Government	51	–	–	–	–	51
Securities loaned or sold in conjunction with repurchase agreements	–	–	–	–	–	–
Debentures and subordinated notes	29,923	–	–	–	–	29,923
Liabilities with respect to derivative instruments	3,082	–	3,082	–	1,767	–
Other liabilities	7,491	–	–	–	–	7,491
Total liabilities	**225,245**	**–**	**3,082**	**–**	**1,767**	**222,163**

(1) Accounting consolidation basis and supervisory consolidation basis are identical.

(2) Amounts exclude balances used to calculate foreign currency risk, including structural positions in foreign currency; for these balances, see Note 31 "Assets and liabilities by linkage basis".

According to disclosure requirements of Pillar 3, the relationship between the balance sheet, as it appears on the Bank's financial statements, and supervisory capital components must be presented in the above table.

The following table shows the Bank's consolidated balance sheet in detail, listing the balance sheet items which include the supervisory capital components:

	Consolidated supervisory balance sheet As of December 31, 2018 NIS in millions	Consolidated supervisory balance sheet As of December 31, 2017 NIS in millions	References to supervisory capital components
Assets			
Cash and deposits with banks	45,162	41,130	
Securities	11,081	10,133	
Of which: Investments in equity of financial corporations, not exceeding 10% of share capital of each financial corporation	–	–	**14**
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	11,081	10,133	
Securities loaned or acquired in resale agreements	26	76	
Loans to the public	195,956	182,602	
Provision for credit losses	(1,575)	(1,484)	
Of which: Group provision for credit losses included in Tier II	(1,410)	(1,348)	**20**
Of which: Provision for credit losses not included in regulatory capital	(165)	(136)	
Loans to the public, net	194,381	181,118	
Loans to Governments	630	456	
Investments in associated companies	32	32	
Of which: Investments in equity of financial corporations, exceeding 10% of share capital of each financial corporation, not exceeding the deduction threshold	2	2	
Of which: Investments in other associated companies	30	30	
Buildings and equipment	1,424	1,403	
Intangible assets and goodwill	87	87	
Of which: Goodwill	87	87	**6**
Of which: Other intangible assets	–	–	**7**
Assets with respect to derivative instruments	3,240	3,421	
Other assets	1,810	1,716	
Of which: Deferred tax assets	1,071	940	
Of which: Deferred tax assets, other than those arising from temporary differences	–	–	**9**
Of which: Deferred tax liability with respect to intangible assets	–	–	**8**
Of which: Other deferred tax assets	1,071	940	
Of which: Excess deposit over provision	–	–	**12**
Of which: Other additional assets	739	776	
Total assets	**257,873**	**239,572**	

The following table shows the Bank's consolidated balance sheet in detail, listing the balance sheet items which include the supervisory capital components – Continued:

	Consolidated supervisory balance sheet As of December 31, 2018 NIS in millions	Consolidated supervisory balance sheet As of December 31, 2017 NIS in millions	References to supervisory capital components
Liabilities and Equity			
Deposits from the public	199,492	183,573	
Deposits from banks	625	1,125	
Deposits from the Government	42	51	
Securities loaned or sold in conjunction with repurchase agreements	–	–	
Debentures and subordinated notes*	30,616	29,923	
Of which: Subordinated notes not recognized as regulatory capital	1,744	919	
Of which: Subordinated notes recognized as regulatory capital	4,012	3,821	
Of which: Qualifying as supervisory capital components	2,226	1,588	**16a,18a**
Of which: Not qualifying as regulatory capital components and subject to transitional provisions	1,786	2,233	**16b,18b**
Liabilities with respect to derivative instruments	3,661	3,082	
Of which: With respect to internal credit risk	9	10	**11**
Other liabilities	8,047	7,491	
Of which: Deferred tax liability arising from retirement	–	–	**13**
Total liabilities	**242,483**	**225,245**	
Equity attributable to shareholders of the banking corporation	14,681	13,685	
Of which: Ordinary share capital	14,841	13,980	
Of which: Ordinary share capital	2,197	2,180	**1**
Of which: Retained earnings	12,782	11,828	**3**
Of which: Cumulative other comprehensive loss	(186)	(93)	**4**
Of which: Losses with respect to adjustments with respect to employee benefits	(130)	(81)	
Of which: Unrealized gains from adjustment to fair value of available-for-sale securities	(59)	(14)	
Of which: Net losses from cash flow hedges	4	4	**10**
Of which: Net losses from translation adjustments of financial statements	(1)	(2)	
Of which: Capital reserves	48	65	**2**
Of which: Preferred share capital	–	–	
Of which: Qualifying as supervisory capital components	–	–	**15a**
Of which: Not qualifying as regulatory capital components and subject to transitional provisions	–	–	15b
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	709	642	
Of which: Non-controlling interests attributable to Tier I shareholders' equity	431	451	5
Of which: Non-controlling interests attributable to additional Tier I capital	0	0	17
Of which: Non-controlling interests attributable to Tier II capital	–	–	19
Of which: Non-controlling interests not attributable to regulatory capital	278	191	
Total shareholders' equity	**15,390**	**14,327**	
Total liabilities and equity	**257,873**	**239,572**	

Below are key sources for differences between supervisory exposure amounts and carrying amounts on the financial statements:

As of December 31, 2018	Total	Items subject to: Credit risk framework	Items subject to: Counter-party credit risk framework	Items subject to: Securitization framework	Items subject to: Market risk framework
Carrying amount of assets according to supervisory consolidation basis	257,873	253,833	3,752	–	288
Carrying amount of liabilities according to supervisory consolidation basis	242,483	–	3,661	–	–
Total net amount according to supervisory consolidation basis	15,390	253,833	91	–	288
Off-balance sheet amounts	18,517	18,517	–	–	–
Differences due to no effect of fair value of derivatives with credit balance	–	–	3,661	–	–
Differences due to variance in calculating the fair value of negotiable derivatives for capital requirements	393	–	393	–	–
Differences caused by potential future exposure	3,036	–	3,036	–	–
Differences caused by differences in offset rules	(1,796)	–	(1,796)	–	–
Differences caused by collateral deduction	(3,604)	(1,597)	(2,007)	–	–
Differences caused by securities provided as collateral	300	300	–	–	–
Differences due to balances not subject to capital requirements or subject to deduction from capital base	1,171	1,171	–	–	–
Differences caused by debit balances of derivatives subject to market risk framework	2,260	–	–	–	2,260
Differences caused by credit balances of derivatives subject to market risk framework	(2,266)	–	–	–	(2,266)
Exposure amounts taken into account for supervisory purposes	**275,884**	**272,224**	**3,378**	**–**	**282**

As of December 31, 2017	Total	Items subject to: Credit risk framework	Items subject to: Counter-party credit risk framework	Items subject to: Securitization framework	Items subject to: Market risk framework
Carrying amount of assets according to supervisory consolidation basis	239,572	235,540	3,823	–	209
Carrying amount of liabilities according to supervisory consolidation basis	225,245	–	3,082	–	–
Total net amount according to supervisory consolidation basis	14,327	235,540	741	–	209
Off-balance sheet amounts	18,392	18,392	–	–	–
Differences due to no effect of fair value of derivatives with credit balance	–	–	3,082	–	–
Differences due to variance in calculating the fair value of negotiable derivatives for capital requirements	283	–	283	–	–
Differences caused by potential future exposure	3,042	–	3,042	–	–
Differences caused by differences in offset rules	(2,026)	–	(2,026)	–	–
Differences caused by collateral deduction	(2,518)	(281)	(2,237)	–	–
Differences caused by securities provided as collateral	294	294	–	–	–
Differences due to balances not subject to capital requirements or subject to deduction from capital base	1,048	1,048	–	–	–
Differences caused by debit balances of derivatives subject to market risk framework	1,907	–	–	–	1,907
Differences caused by credit balances of derivatives subject to market risk framework	(1,767)	–	–	–	(1,767)
Exposure amounts taken into account for supervisory purposes	**258,227**	**254,993**	**2,885**	**–**	**349**

Glossary and index of terms included in the Risks Report

Below is a summary of terms included on the Risks Report:

Terms with regard to risks management at the Bank and to capital adequacy

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 – Framework for assessment of capital adequacy and risk management, issued by the Basel Committee on Bank Supervision.
C	**CRM – Credit risk mitigation** – Methods for reducing credit risks, such as: Insuring credit exposure through a guarantee or a deposit.
	CVA - Credit Valuation Adjustment – 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 due to mark-to-market with respect to expected counter-party risk for OTC derivatives. This means – loss due to impairment of fair value of derivatives, due to an increase in counter-party credit risk (such as: lower rating).
	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.
E	**Expected Shortfall VaR** – A model which estimates the average loss for the VaR model, beyond the confidence level specified in the VaR model.
	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.
H	**HQLA – High-Quality Liquid Assets** which may be easily and quickly converted into cash at a small loss (or no loss) under a stress scenario.
I	**ICAAP** – **Internal Capital Adequacy Assessment Process** by the Bank. This process includes, *inter alia*, setting capital targets, capital planning processes and review of capital status under various stress scenarios. This process is part of Pillar 2 of the Basel II 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** – This ratio reflects the minimum supervisory capital requirements which the Bank is required to maintain in conformity with Proper Conduct of Banking Business Directive 201.
P	**Pillar 2** – The second pillar of the Basel II project, refers to the Supervisory Review Process. This part consists of the following basic principles: The Bank shall conduct the ICAAP process, as defined above. The Supervisor shall conduct a process to assess the ICAAP process conducted by the Bank, to review the Bank's capacity to monitor and achieve supervisory capital ratios. The Bank is expected to operate above the specified minimum capital ratios.
	Pillar 3 – The third pillar of the Basel II project, designed to promote market discipline by developing a set of disclosure requirements, which would allow market participants to assess the capital, risk exposure and risk assessment processes – and use these to assess the Bank's capital adequacy.
R	**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 compiled and presented to the Board of Directors quarterly. **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.
S	**Standard approach –** An approach used to calculate the required capital with respect to credit risk, market risk or operational risk. Calculation of capital allocation is based on a formula, which is based on supervisory assessment components which have been specified by the Supervisor of Banks.
	Supervisory capital (total capital) – Supervisory capital consists of two tiers: Tier I capital, which includes Tier I shareholders' equity and additional Tier I capital. Tier II equity: As defined in Proper Conduct of Banking Business Directive 202 "Measurement and capital adequacy – supervisory capital".
	Subordinated notes – Notes whose rights are subordinated to claims by other Bank creditors, except for other obligations of the same type.
	Stressed VaR – Estimate of the Value at Risk (VaR) based on historical data which describe a relevant crisis period.
	Stress tests – A title for various methods used to assess the financial standing of a banking corporation under a n extreme scenario.
V	**VAR** – A model used to estimate overall exposure to diverse market risk factors. 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 effective duration** – The average term to maturity of debentures. Measured in years, by weighting principal and interest payments for the debenture over its term to final maturity. The average effective duration of a debenture reflects the financial instrument's sensitivity to changes in interest rates. Average effective duration is calculated as the ratio between the weighted average debenture payouts to its price.
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 restructuring** – Problematic debt under restructuring 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 and conditions of the debt, designed to make it easier for the debtor to make cash payments in the near term (reduction or postponement 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, which require special attention by Bank management. Should these weaknesses not be addressed, the likelihood of debt repayment may deteriorate.
	Debentures – Securities which are obligations by the issuer to pay to the debenture holder the principal issued plus interest, on specified dates or upon realization of a specified condition.
	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	**Indebtedness** – On- and off-balance sheet credit, as defined in Proper Conduct of Banking Business Directive 313.
	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.
	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.
	Impaired debt – Debt is classified as impaired when its principal or interest is in arrears over 90 days, unless the debt is well secured and is in collection proceedings. Further, any debt whose terms and conditions have been changed in conjunction with restructuring of problematic debt would be classified as impaired debt, unless prior to and following such restructuring, a provision for credit losses by extent of arrears was made with respect to the debt pursuant to the appendix to Proper Conduct of Banking Business Directive 314 on problematic debt in housing loans. Problematic debt – Debt classified under one of the following negative classifications: special supervision, inferior or impaired.
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, premium or discount yet to be amortized, net deferred commissions or net deferred costs charged to the debt balance and yet to amortized, net of the 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** – A 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 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 benchmark for the Bank's capacity to fulfill 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.

Index