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Introduction by the Supervisor of Banks

Banking in Israel and abroad has changed dramatically in recent years, influenced by the rapid technological changes in the financial world, and due to the many regulatory measures currently being implemented. In the coming years, we can expect the rapid changes to continue.

Globally, assessments are that by 2025 technology will replace a large proportion of the banking workforce. Even now there are areas of banking where technology has rendered many employees superfluous. To illustrate, banking applications have replaced many of the payment actions that had been executed by employees in the areas of transfers and checks, and these changes are lowering the fees paid by the public, as well as banks' revenue from the payments field. There is significantly less need for tellers in the interface with customers, thanks to the expanded field of banking transactions that can be executed by automatic means and the entry of user-friendly banking applications. The banks are making investment counseling and portfolio management fully or partially robotic, which is reducing the need for employees and making it possible to provide investment counseling at a lower cost to a much broader population, including customers with few financial assets. A trend to replace manpower with technology, including automation and artificial intelligence, has also begun in the banks' backroom operations. Lastly, there is increasing use of statistical models in the provision of credit to households and small enterprises, which dramatically shortens the work process. Technology is having an impact, it will continue to influence the banks' expenses and income, and it is changing the face of banking. Consumer demand for more convenient and faster digital services is spurring these changes, and technology is making them possible.

In view of the changes in the banks' operating environment, the Banking Supervision Department has been acting in recent years to reach additional goals, alongside its continuing work to maintain the banks' stability. Following the Global Financial Crisis, the Department has placed special emphasis on strengthening the banks' stability and on implementing the insights gained from the Crisis. In the past three years, the Department has also emphasized the need **to adjust the banks' business models** to the changing world of technology, while encouraging **the assimilation of technology and innovation, improved efficiency, and increased competition.** At the same time, the Department is adjusting the requirements to strengthen management of the large risks derived from the changing world of technology (cyber risks, business continuity, and information leakage), compliance risks, and the increasing risk in the field of household credit.

The banks' performance for 2017 and the beginning of 2018 show that the banking system is undergoing a deep change, and the goals being advanced by the Banking Supervision Department are already being reflected in the field. In addition to the continuing growth of capital and liquidity and the high quality of the credit portfolio:

- **The banks are showing a continued improvement in their efficiency**—as a result of reduced manpower, branches and real estate, and of changes in organizational structures and procedures, following a directive issued by the Banking Supervision Department and incentives that it provides for streamlining. The number of employees in the banking system declined in 2016–7 by about 3,200. These changes are not easy for the banks' managements or employees—people who have contributed

much to banking in recent decades—but they must be made so that the banks will be able to adjust their business models to the new technological-competitive world, and so that the customers will be able to receive more competitive service.

- **The banks are investing in innovation and digital transformation in order to improve their service to the customers.** In the past year, advanced payment applications and new and more convenient digital tools were offered for remote consumption of banking services. These provide customers with a means of responsible financial management, and allow them to save time (going to branches and waiting in line) as well as money. The banks have lowered fees for services provided through digital means, following a requirement published by the Banking Supervision Department that came into effect in November 2017. Some of the innovation is developed in cooperation with fintech companies.
- **Retail banking competition is increasing, which is already being reflected in a number of aspects,** chiefly in consumer credit. The number of alternatives open to the public has expanded, and consumers can already take out consumer credit from all banks—not just the bank where the customer’s current account is managed—as well as from credit card companies and other nonbank entities, some of which are new. As a result, the banks’ share in the provision of consumer credit is declining, and today, about 20 percent of consumer credit is not taken from banks. In addition, competition between the mid-sized banks and the large banks is intensifying. There is lively competition over digital innovation, as a result of which service to the customer is improving, and competition in the payments area is also increasing, which is reflected in lower settlement fees paid by businesses among other things. Competition in household and small business banking is expected to continue intensifying in the coming years, based on technology and in view of large projects currently being advanced.

In addition to these major changes, the data show that in 2017 and the beginning of 2018, the banks continued to expand credit issued to the business sector, thereby supporting economic growth. They focused on small and medium enterprises, and expanded credit to construction and real estate (by about 10.5 percent), while credit to households grew at a slower pace than in previous years. The credit spreads in consumer credit and in credit to small businesses increased slightly in 2017, due to an increase in risk and credit losses in this area. In contrast, the interest rate on mortgages declined.

2017 was also characterized by an increase in dividend rates to the banks’ shareholders, most of whom are among the broad public, and in an increase in the value of bank shares. In 2017, dividends increased the wealth of the broad public by NIS 1.6 billion. This development was made possible after the banks reached their capital adequacy targets set by the Banking Supervision Department, and this factor, alongside the transformation that the banking system is undergoing, contributed to a significant increase in the banks’ market value relative to book value (MV/BV), with the average value in the banking system reaching 0.96.

In terms of mortgages, an issue that concerns many households, the Banking Supervision Department took a number of measures intended to make it easier for borrowers. The Department enacted leniencies for mortgage borrowers in “Buyer’s Price” projects throughout the country by recognizing the assessor’s evaluation of the property value. The Department then further eased matters for mortgage borrowers in the periphery, deciding that State grants will be considered part of the customer’s equity. At the beginning of

2018, the Department made it easier for customers to take out mortgages with an LTV of between 60 and 75 percent, by lowering the banks' capital requirement against such loans. In parallel, the mortgage interest rates for all these mortgages declined by about 0.5 percentage points over the course of the year.

The Banking Supervision Department handled significant banking issues that have concerned the public. The salaries of senior bank officials declined greatly as a result of the Senior Officials Wage Law, and it is now significantly lower than the wages of officers in other public companies of similar size. Credit to large and leveraged borrowers declined significantly, and the banks internalized the lessons from the credit failures of such borrowers. Bank fees were lowered significantly in recent years, and banking service in general is now not as expensive as it was in the past or as it is in other countries. In addition, the lessons derived from the tax evasion investigations conducted against the banks by the American authorities were implemented. However, the investigations are still on-going in some cases, and once they are complete, the Banking Supervision Department will make sure that the implementation of the lessons is completed.

There were a number of issues that intensified during the year, which created difficulties for customers:

- **The banks are imposing strict demands on customers regarding the opening of accounts, transfer of funds, and management of accounts with multiple beneficiaries, and are requiring them to present copious documentation.** These demands are derived from legislative changes such as the inclusion of tax evasion as a predicate offense in the Prohibition of Money Laundering Law, and from the lessons derived from the American investigations—events that led the Banking Supervision Department to impose stricter requirements intended to ensure that the banks and their customers comply with foreign laws as well. It is important that the broad public understand that the legislative changes and the increased enforcement are the reasons for the banks to demand more information and documentation before making certain transactions, and that the banks have no interest in making it more difficult for the public to make those transactions.
- **The banks are closing branches and teller desks.** In Israel, as in much of the rest of the world, a large portion of basic banking services are transitioning to direct means—ATMs, mobile applications, Internet, and telephone call centers—and customers come to the branches less often. This makes it necessary for the banks to reduce and reorganize their branch network, and some customers encounter this when the bank notifies them that the branch where they managed their account is closing and they are being moved to a different branch. Most customers get accustomed to the change quickly and see the advantages involved. But there are customers, mainly senior citizens, who have difficulty getting accustomed to the change, and the Banking Supervision Department is therefore guiding the process in order to minimize the difficulties. It is requiring the banks to take measures in order to make it easier for customers with low digital literacy—placing employees in the branches to help customers use digital tools, holding methodical training programs, operating mobile bank branches that come to seniors' residences, and more. In 2018, the Department, in conjunction with the Association of Banks, will lead a national initiative intended to provide digital education to senior citizens.

In the coming year, the Banking Supervision Department will continue to advance the following goals:

Increasing efficiency at banks: The Banking Supervision Department will continue to monitor the implementation of programs to increase efficiency, and will require the banks to adjust to the changing environment, including through wage agreements that are being formulated.

Adjusting the business model to the new technological environment: The Banking Supervision Department will continue incentivizing the adjustment, and will promote digital transformation and automation both within the banks (in their operations, service, and risk management and control) and in their interface with customers.

Increasing competition: The Banking Supervision Department will continue encouraging the many initiatives in the field. Chiefly, it will guide the process of separating two credit card companies from the banks, and will support their solidification as competitive independent actors. It will also promote “open banking” through the publication of an API standard, which will enable customers to transfer information and compare alternatives. Competition will also be encouraged by the credit data sharing system currently being established by the Bank of Israel. The Banking Supervision Department will advance all of these tasks while conducting on-going examinations, maintaining stability, and continuing to require the banks **to strengthen their management of the new and intensifying risks.**

In order to deal with the large changes in their operating environment, and with the aim of ensuring the existence of a stable and competitive banking system over time to benefit the broad public, the banks and bankers must continue to act to adjust their business models decisively and with a forward-looking vision. To do so, they must assimilate innovation to benefit the customers and in order to streamline internal processes, continue to markedly increase efficiency and adjust labor agreements, and increase their competitive ability. Banks that implement the changes slowly and continue to operate along traditional methods will increase their risk of becoming uncompetitive and irrelevant in the not-too-distant future.

A handwritten signature in black ink that reads "Hedva Ber." The signature is written in a cursive, slightly slanted style.

Dr. Hedva Ber
Supervisor of Banks

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CHAPTER 1

DEVELOPMENTS IN THE BANKING SYSTEM

In 2017, the banking system maintained its resilience and stability, alongside a continued marked increase in efficiency and the integration of technology in the interface with customers and within the banks. This is in addition to dealing with domestic and global challenges, both old and new, and in particular: the need to adapt the business model to an increasingly technological and competitive world; the preparations to separate the credit card companies from the banks; the efforts to prepare for major regulatory projects, such as the creation of the central credit register and “open banking”; and greater focus on managing new and growing risks, such as credit risk in the retail sectors and technology and cyber risks.

The positive developments in the banking system are the mirror image of the positive situation of the Israeli economy and the improvement in the global economy. This situation is reflected in the growth of Israel’s GDP, which is impacted on by the accelerated growth in exports and the continuing expansion of private consumption, as well as the low unemployment rate. Nevertheless, other developments have negatively affected the banking system, such as the low rates of interest and inflation. The banking system has increased its resiliency by continuing to accumulate equity and improving its composition and by maintaining adequate profitability, the good quality of its credit portfolio and a high level of liquidity, relative to its performance in the past and to the banking systems in other countries.

The cumulative growth of the banks’ equity in recent years, as a result of increased regulatory capital requirements, the profits accumulated by the banks and the improvement in the Common Equity Tier 1 Capital ratio, has created a new challenge for some of the banks—namely, surplus capital relative to the regulatory requirements and how to optimally allocate it among the various uses. These surpluses provide support for the banks’ ability to extend credit to companies and individuals in the economy who are seeking credit and have the ability to repay it. This follows a period of up until a year ago in which there were banks for whom capital constituted an effective constraint on the extending of credit and also on the distribution of dividends to shareholders, with most shares held by the public. Correct use of the capital surpluses will also enable the banks to position themselves in coming years in the evolving business environment.

The year being surveyed was characterized by credit portfolio growth that was balanced between the business sector and the household sector, with the growth rate similar rate to that of GDP, and an increase in the share of mid-size banks in bank financing. The growth in the portfolio of bank credit this year was primarily

The banking system continues to maintain its resilience and stability, alongside a continued marked increase in efficiency and the integration of technology in the banks’ activity.

the result of the increase in credit provided by the mid-size banks and thus their share of the market continued to grow at the expense of the two largest banks. The credit portfolio has shown good performance over time, despite the increase in risk in some of the retail sectors. Nonetheless, the high level of exposure of the banking system to the housing market and the real estate industry remains the main focus of risk, although the risk due to mortgages is lower than in the past. In addition, the banking system remained exposed to additional risks, including business model risk, strategic risk, technological risk, cyber risk and operational risk. These risks are expected to grow in the future, in view of the speed of technological progress and the increase in competition.

The increase in risk arising from cross-border activity in recent years—due to the growing enforcement activity of other countries against financial institutions in their jurisdictions and the investigation of banks by the authorities in the US—has led the banks to reduce their exposure to activity abroad and to close branches and offices in foreign countries. In addition, the Banking Supervision Department has issued a new directive requiring the banks to increase the supervision and oversight of subsidiaries in the countries where they choose to operate.

The banks continued this year to implement significant efficiency measures and to adapt their organizational structure to the changing business environment. In Israel, as in most of the developed countries, there has been a process in recent years to modify the business model in order to meet the challenges of technological progress, including a reduction in the number of branches and a shift to digital banking. The increased efficiency and technological improvements are expected to enable the banks to improve their functioning in an increasingly competitive environment. This can be viewed against the background of, among other things, the steps taken to increase competition in banking, which are being led by the Banking Supervision Department and the Ministry of Finance. These steps focus on the household and small business sectors and are related to overall service and the areas of credit, payments and settlement. They reflect the importance attributed by the Banking Supervision Department to competition and the goal of increasing competition that it has set for itself.

The credit card companies continued this year to increase the credit they provide, and primarily credit to households. The upward trend in the capital ratios of the credit card companies levelled off this year, despite the continuing growth in equity, and their levels remained significantly higher than the regulatory requirements. These companies are facing significant challenges, a situation that can be expected to continue in the future. This is primarily the result of regulatory changes, and first among them the expected separation of two of them from the two largest banks and financial innovation, which is changing the entire area of payments.

1. BUSINESS RESULTS

The net profit of the five largest banking groups grew in 2017 relative to the previous year (by about 12 percent), although their profitability remains somewhat lower than the average for leading banks in Europe and the US (see Figure 1 in Box 1.4 – The Israeli Banking System’s Performance in International Perspective).¹ The banks this year showed adequate profitability, particularly in view of the low interest rates in the economy, and their return on equity stood at about 8.8 percent (compared to about 8.3 percent in 2016 and similar to the average in recent years; Figure 1.1). The improvement in the banks’ results was reflected in an increase in income in the core profit sources and in the reduced reliance on one-off revenues, such as extensive collection of past debts, realization of assets in the securities portfolio, and other one-time revenues, which characterized recent years. Net profit was positively affected this year by lower taxes on profits (by about 6 percent) due to the reduction in the corporate tax rate last year.²

Despite the low interest rate environment in Israel and worldwide, which usually leads to an erosion of the banks’ core sources of profit, the banks have succeeded during the past two years in increasing their net interest income (by about 8 percent in 2017). The increase this year is reflected in the larger net interest margin³ (Figure 1.2) and it is due to the increase in the quantity of credit provided by the banks (Table 1.4) and in the interest rate spread⁴ in some activity segments (Figure 1.3). The increase in interest rate originated in the household segment (both consumer and housing credit⁵) and in the small and micro business segments (Figure 1.4). This was due to, among other things, the increase in risk, which was reflected in the deterioration in indicators of portfolio quality in these sectors. In contrast, the increase in the quantity of credit encompassed all of the activity segments (for further details on the increase in the interest rate and the interest rate spreads in the various segments of activity, see the section on developments in the credit portfolio and also Box 1.1 – The Growth in Credit to Small Businesses in Recent Years). The growth in interest income was partially offset by a marked increase in loan loss provisions (by about 55 percent). This was the result of an increase in the group provision in 2017 and the positive net collection of credit to large businesses last year. Nonetheless, the loan loss provision is still lower than in previous years (Table 1.19).

The net profit of the five largest banking groups grew in 2017, but their profitability remains somewhat lower than the average for leading banks in Europe and the US.

¹ If one examines profit before taxes, then the profitability of the banking system in Israel is in fact somewhat higher than in other countries.

² In 2016, the banks’ tax expenses grew due to the reduction in the corporate tax rate, which reduced the balance of deferred taxes. Net of this effect, the increase in profit in 2017 stood at only about 4 percent.

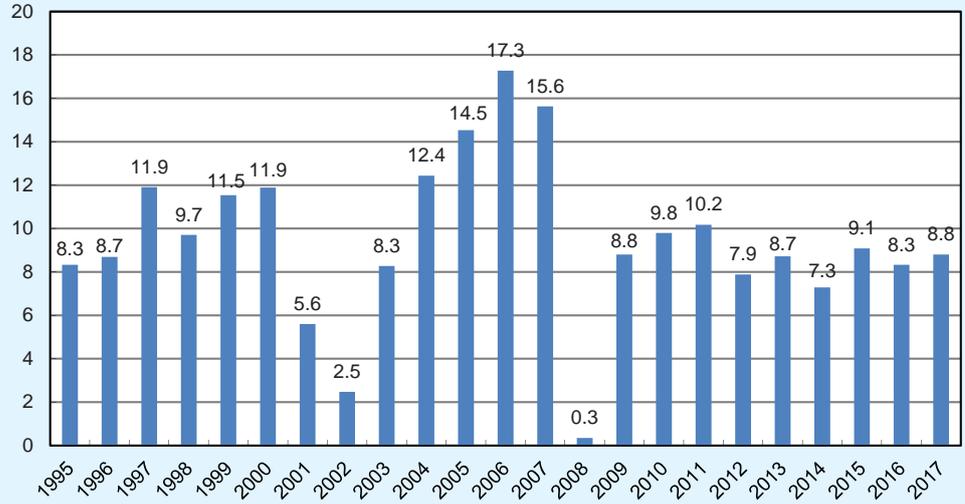
³ The ratio of net interest income to total financial assets that yield financing income.

⁴ The difference between the rate of interest income on credit provided to the public and the rate of interest expenditure on the public’s deposits.

⁵ The interest rate on housing credit was on a downward trend in all mortgage tracks in 2017 (Figure 1.16), but on average it was higher than in 2016.

The banks showed adequate profitability, similar to previous years.

Figure 1.1
Return on Equity (ROE) After Tax, of Five Banking Groups, 1995–2017 (percent)



SOURCE: Based on published financial statements.

The net interest margin increased slightly in 2017.

Figure 1.2
Net Interest Margin^a and the Bank of Israel interest rate^b, the Five Banking Groups, 2008–17 (percent)



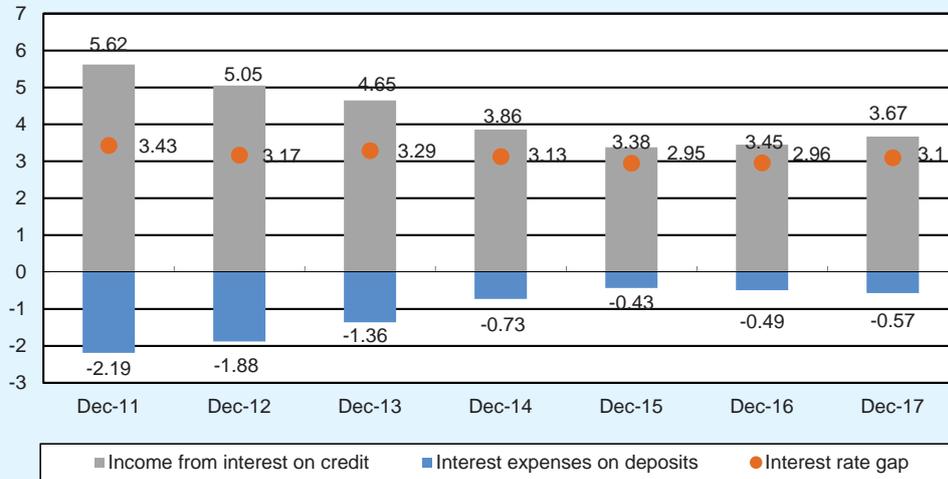
^a The ratio between net interest income and total monetary assets that generate financing income.

^b Yearly average.

SOURCE: Based on published financial statements.

The interest rate gap increased in 2017.

Figure 1.3
Income from Interest on Credit to the Public, Interest Expenses on the Public's Deposits,
and the Interest Rate Gap, the Five Banking Groups, 2011–2017 (percent)



SOURCE: Based on published financial statements.

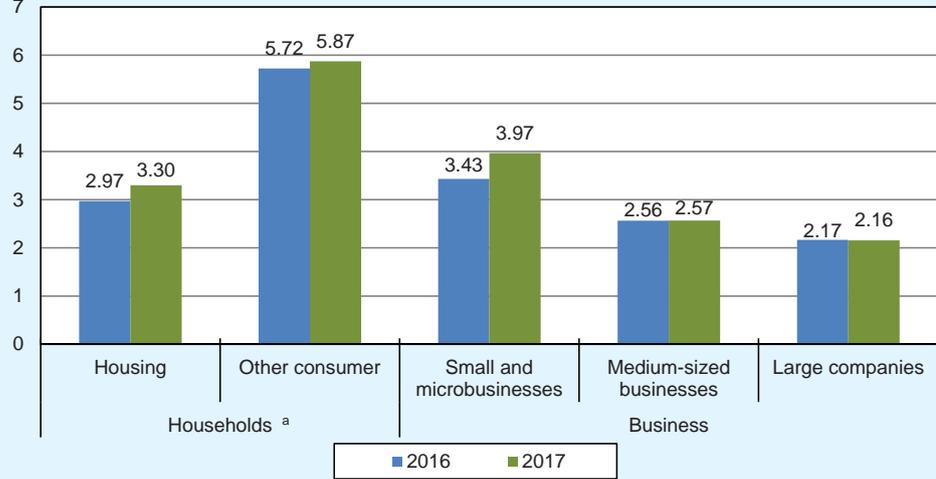
The ratio of the banks' revenues from fees to its level of activity remained basically unchanged this year, following a downward trend in recent years (Figure 1.5).⁶ This trend was reflected in the continuing decline in revenue from account management fees and securities activity and was partially offset by the increase in revenue from credit cards, primarily due to the increase in their usage. The upward trend in revenue from credit card fees continued this year, though it was partially offset by the continuing decline in revenue from management fees (Table 1.6). Furthermore, a regulation issued by the Banking Supervision Department, which went into effect in November of this year, required the setting of lower prices for customer-executed services⁷ relative to the prices charged for those same services when provided by a teller and that a comparison between the two prices be presented to customers. This is expected to continue the downtrend in revenue from fees in the coming years. About 30 percent of the fee revenue of the banks that own a credit company originates from the fees charged by those companies. This is due to revenue from fees accounting for about 80 percent of the credit card companies' income.

⁶ This was due to, among other things, regulatory measures and the supervision of prices by the Banking Supervision Department during those years, with the goal of enhancing transparency, improving the customer's ability to compare between banks and also encouraging competition in the banking system.

⁷ Internet sites, mobile apps, self-service electronic stands, and call centers (both staffed and computerized).

The interest rate increased in the household segment and in the small business and microbusiness segments due to the increased risk in these sectors among other things.

Figure 1.4
Average Interest Rate on Credit Issued to the Public in the Various Activity Segments, the Five Banking Groups, 2016 and 2017 (percent)

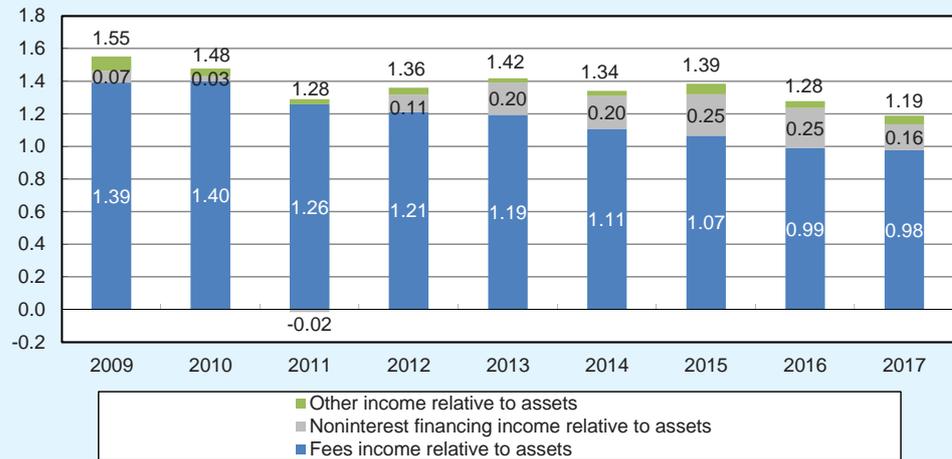


^a Households includes private banking.

SOURCE: Based on published financial statements.

The rate of fees income remained virtually unchanged compared with 2016, while the share of noninterest financing income declined relative to previous years.

Figure 1.5
Composition of Noninterest Income Relative to Total Assets, the Five Banking Groups, 2009–17^a (percent)



^a The sharp decline in 2014 is derived from the accounting reclassification of income from credit activity due to a Supervisor of Banks directive.

SOURCE: Based on published financial statements.

Following several years of an upward trend, the share of non-interest financing income⁸ within the banks' total income (Figure 1.5) declined this year (by about 34 percent), primarily due to one-time events in 2016.⁹ Operational expenses, which include salary expenses, rose somewhat relative to the previous year (by about 0.7 percent and 0.5 percent, respectively), despite the savings in salary expenses as a result of the implementation of efficiency plans implemented by the banks (for further details, see the section on operational efficiency).

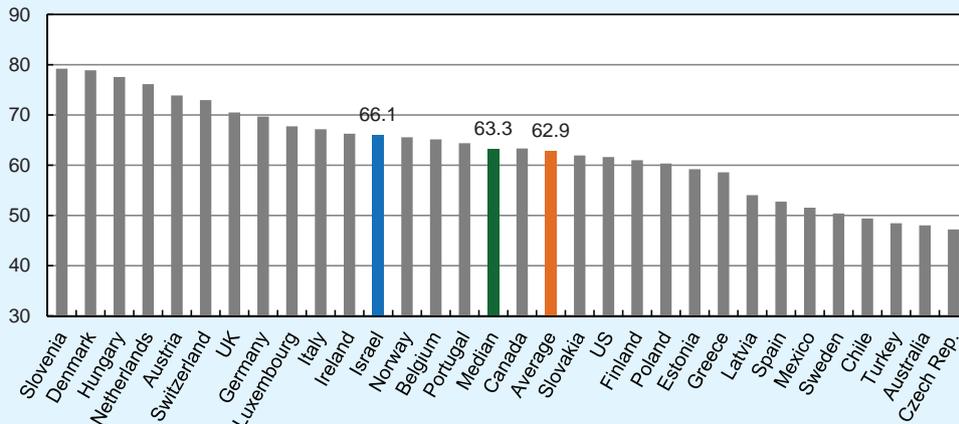
2. OPERATIONAL EFFICIENCY

This year, Israel's banking system continued its trend over recent years of markedly increasing efficiency, and this was reflected in reduction in workforces and number of branches, changes in organizational structure and the streamlining of internal work processes. Nonetheless, the efficiency of the system, as measured by the generally accepted indices, remained somewhat lower than for the banking

This year as well, Israel's banking system continued its trend over recent years of markedly increasing efficiency. However, the efficiency of the system remains somewhat lower than for the banking systems of advanced economies.

The banking system in Israel, according to accepted efficiency indices, remains slightly less efficient than the banking systems in other advanced economies.

Figure 1.6
Operating Efficiency Ratio^a in the Banking Systems of OECD Countries^b, 2015–17 average^c (percent)



^a Total operating expenses as a share of net interest income and noninterest income.
^b Iceland, New Zealand, Japan, France and South Korea were not included due to a lack of data.
^c For Sweden the 2016–17 average.
 SOURCE: Foreign countries—International Monetary Fund; Israel—based on published financial statements.

⁸ Non-interest financing income includes investment in bonds and shares held to maturity/available for sale, profits from the sale of shares of subsidiaries, dividends, and mark to market gains, shares and negotiable bonds. It also includes derivative instruments that are not used for hedging, other derivative instruments and exchange differences.

⁹ Non-interest financing income in 2016 was affected by the profit derived from the purchase of Visa Europe Ltd. by Visa Inc.

systems of advanced economies (Figure 1.6). Thus, the operational efficiency index¹⁰ of the five largest banking groups declined in 2017 to about 65 percent, from about 66.5 percent in 2016, and it is lower than the average in recent years (Table 1.7). In particular, the improvement among the mid-size banks, such as Discount and First International, which for many years were characterized by inefficiency, was particularly noticeable. The average cost per output unit¹¹ also points to an improvement in the system's efficiency and it stood at about 2.03 percent in 2017, in contrast to 2.09 percent in 2016. This is a continuation of the trend in the index in recent years.

Operating expenses increased slightly relative to 2016 (by about 0.7 percent), despite the savings achieved in salary expenses as a result of the implementation of efficiency plans by the banks, while the banks' income grew this year by about 3 percent (Figure 1.7). The increase in expenses was the result of a number of one-time events, including an additional provision by Bank Hapoalim in respect of an investigation by US authorities;¹² expenses due to the salary agreement with the employees of Bank Mizrahi-Tefahot;¹³ the assimilation of the new core system in Bank Yahav; and the expense as a result of the termination of Bank Hapoalim's private banking activity in Switzerland.

¹⁰ The ratio of total operating expenses and other expenses to the total of net interest income and non-interest income (known as the cost-to-income ratio).

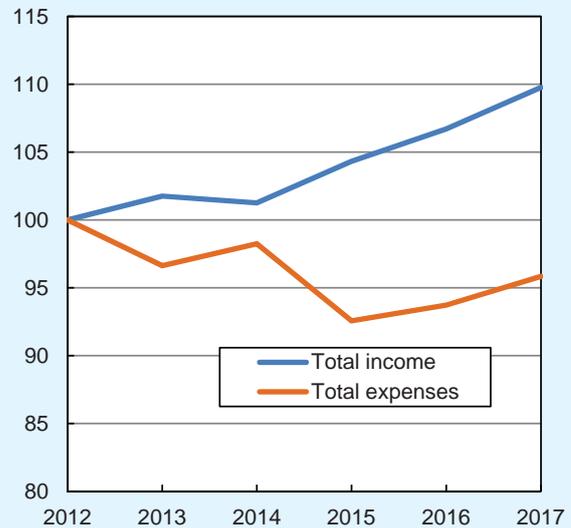
¹¹ The ratio of total operating and other expenses to average total assets (known as the average cost ratio).

¹² In 2017, Bank Hapoalim adjusted the provision for the bank's exposure with regard to the investigation by the US authorities by NIS 503 million. The total amount of the provision for this issue, as of December 31, 2017, stood at about NIS 1,207 million.

¹³ The new wage agreement signed by Bank Mizrahi-Tefahot includes a one-time expense of NIS 160 million that was recorded in 2017. This is in addition to a future increase in the bank's monthly salary expenses during the period 2018–21. (The new wage agreement was signed for the period 2016–21.)

Over the past few years income has increased and expenses have declined.

Figure 1.7
Development of Income and Expenses, the Five Banking Groups^a, 2012–17 (index: 2012=100)

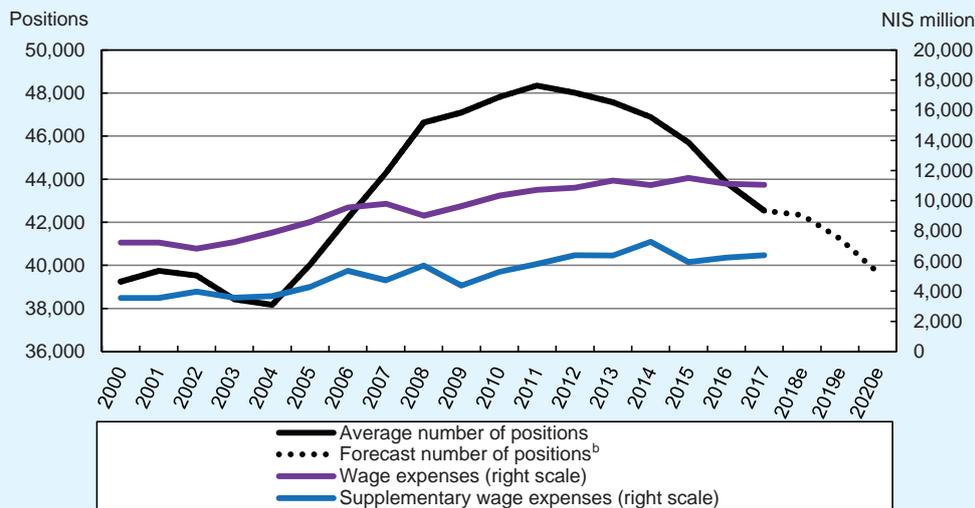


^a The income side includes net interest income and noninterest income. The expenses side includes total operating and other expenses and expenses in respect of credit losses.
SOURCE: Based on published financial statements.

The process of reducing the number of positions in the banking system—primarily through early voluntary retirement as part of the efficiency plans—continued in 2017. As a result, the average number of positions in the five largest banking groups declined by about 3 percent (about 1,300 positions),¹⁴ a continuation of the trend in recent years (Figure 1.8). Between 2015 and 2017, the number of positions in the banking system was cut by 3,200. The reduction in 2017 was primarily the result of reducing low-paying positions (up to NIS 360,000 per year), alongside a continuing decline in the number of positions at the banks’ offices abroad, as a result of the reduction in activity abroad (Table 1.8). Salary and related expenses¹⁵ rose somewhat this year (by about 0.5 percent), which reflects an increase in the salary-related expenses (about 2.6 percent), while salary expenses fell somewhat (by about 0.7 percent). The increase in expenses was due to medium- and high-paying positions (as a result of the increase in the number of positions in these categories), but was

The number of employee posts in the banking system continued to decline this year, as a result of voluntary retirement programs that are included in the streamlining programs.

Figure 1.8
Average Number of Employee Posts and Wage and Supplementary Expenses in Respect of Employees^a, the Five Banking Groups, 2000–17, and Forecast for 2018–20



^a Supplementary expenses include severance, benefits, advanced training funds, pension, vacation, National Insurance and payroll taxes, other supplementary expenses, voluntary retirement expenses, and employee options benefits.

^b The forecast regarding the number of positions is based on the expected rate of decline in the number of employees in the five banking groups, and is based on the semi-annual report to the Banking Supervision Department regarding the streamlining programs.

SOURCE: Based on published financial statements.

¹⁴ The number of positions includes positions at subsidiary companies abroad and consolidated companies, as well as the translation of the cost of overtime and external manpower budgets that were necessary in order to regulate manpower and integrate projects.

¹⁵ Salary-related expenses include severance pay, compensation, advanced study funds, pension, vacation, National Insurance and the salary tax, other related expenses, voluntary retirement expenses and benefits from the distribution of options among the workers.

largely offset by the decline in expenses due to workforce cuts in overseas offices. In addition, salary expenses in 2017 were affected by the one-time cost of the Bank Mizrahi-Tefahot wage agreement.¹⁶

Average salary expenses per employee post in the five largest banking groups increased, but their rate of increase was lower than the average wage increase per employee post in the economy as a whole.

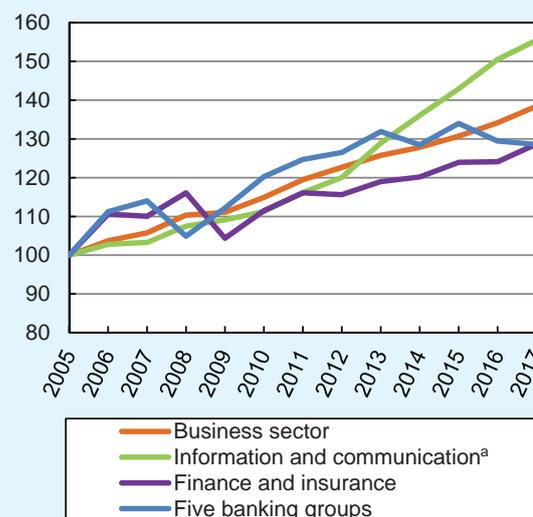
Overall, average salary expenses (including related expenses) per position in the five largest banking groups increased by about 3.6 percent in 2017. From a long-term view, the increase in average salary expenses per position in the five largest banking groups is less than that for the economy as a whole (Figure 1.9) and has almost come to a halt since 2013. Thus, it appears that the increase in the average salary in the financial and insurance industry in recent years is not due to the banking system.

As part of the efficiency measures, the banks continued to close branches this year as well, a trend that has been characteristic of the last few years.

As part of the efficiency measures, the banks continued to close branches this year, a trend that has been characteristic of the last few years. The total number of branches in the banking system declined this year by about 2 percent (25 branches), and cumulatively the number has fallen by about 9 percent relative to the record level reached in 2012 (Figure 1.10). This rate of branch closure is lower than the average for Europe and the US (about 17 percent; see Figure 6 in Box 1.4—The Israeli Banking System's Performance in International Perspective), apparently due to differences in the number of branches per resident and in their size between Israel and most of these countries and because the downward trend in Israel began with a lag of several years (partly due to the resilience of Israel's economy and banking system in weathering the global crisis).

The increase in average wage expenses per position in the banking system is lower than the increase in the average wage per employee post in the general economy.

Figure 1.9
Average Wage per Employee Post in Various Industries and Wage Expenses per Position in the Five Banking Groups, 2005–17
(index: 2005=100)



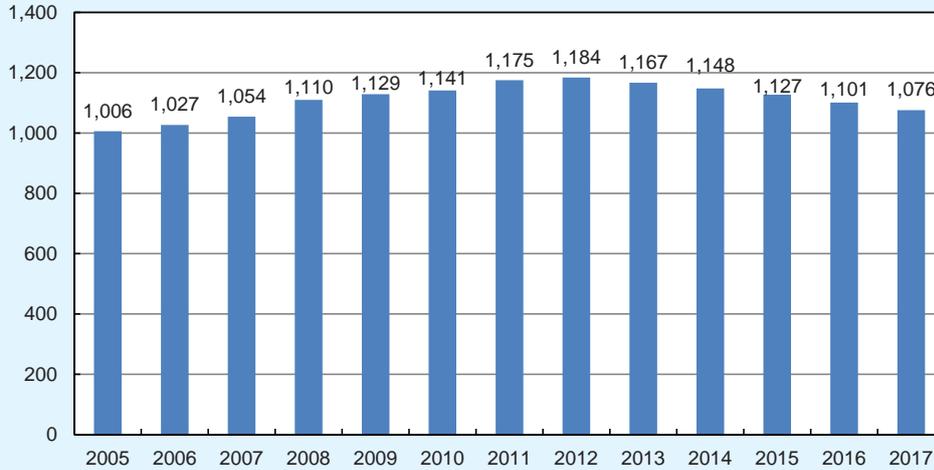
^a This industry mainly includes high-tech companies.

SOURCE: Based on Central Bureau of Statistics and published financial statements.

¹⁶ Net of the one-time expenses due to the wage agreement at Bank Mizrahi-Tefahot in the amount of NIS 160 million, salary and related expenses fell in 2017 by about 0.4 percent, while average salary expenses per position grew by only about 2.6 percent.

As part of the streamlining process, the banks continued the trend of closing branches from recent years.

Figure 1.10
Number of Branches^a, Total Banking System, 2005—17



^a Operating in Israel.

SOURCE: Based on reports to the Banking Supervision Department.

The banks' efficiency measures are being carried out against a background of changes in consumer preferences and are made possible by technological developments. The banks are investing major efforts to adapt themselves to the modern digital world and are adopting innovative technologies to streamline processes and improve banking products, as well as developing them themselves. These processes have made it possible for customers to carry out a wide variety of activities remotely, without having to visit a branch, and they are increasing the accessibility of bank information. The data indicate that the proportion of

Israeli consumers are adopting digital banking channels as a main way of obtaining banking services.

Figure 1.11
Percentage of Accounts in Which Customers Used Digital Channels, the Five Banking Groups, 2016 and 2017



SOURCE: Based on reports to the Banking Supervision Department.

bank activities carried out through direct channels¹⁷ rose to about 55 percent in 2017, in comparison to about 48 percent last year. Thus, the majority of activities are currently carried out remotely. It appears that the Israeli public is adopting the digital banking channels as the main method of consuming banking services (Figure 1.11). This can be seen from the fact that 70 percent of bank account owners currently are signed up for banking services on the Internet. In addition to the apps and Internet sites, the banks are developing and already offering digital platforms for money management, as well as robotic tools based on artificial intelligence, which are increasing efficiency and saving manpower costs.

Alongside the technological improvements on the customer side, the banks are adopting internal efficiency measures. Thus, they are introducing organizational changes, such as the merger of units, and improving numerous operational work processes by means of, among other things, the consolidation of processes and the assimilation of technology within operational and auditing processes.¹⁸ In coming years, it is expected that the efficiency of the banks' systems will further improve, based on the need to continue increasing efficiency. The goal of the banks is to become fast-moving, flexible and more competitive, in response to increasing competition from outside the banking system and primarily against the background of technological progress (see Box 2.2 – The Banking Sector—Where to? Possible Scenarios According to the BIS).

3. CAPITAL ADEQUACY AND LEVERAGE

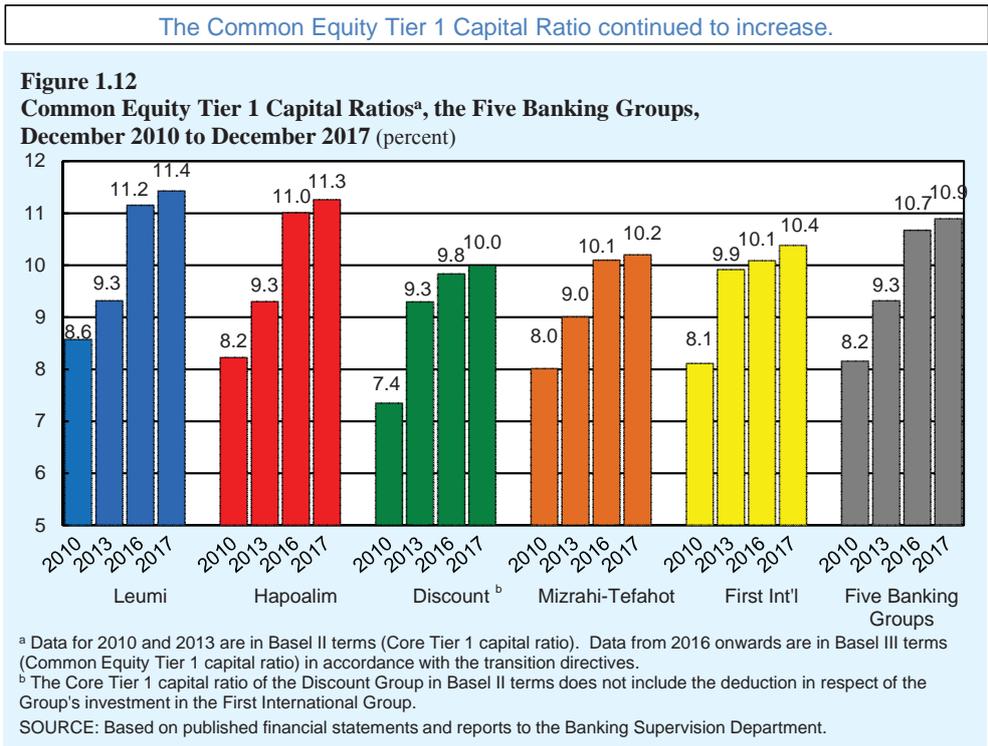
The banks continue to increase their capital, while at the same time also increasing their distribution of profit to the public.

In 2017, the banks continued to increase their capital, while at the same time supporting economic growth and increasing their distribution of profit to the investing public. The equity of the five large banking groups grew by about NIS 6.2 billion this year (an increase of 6.1 percent), which was similar to previous years and can be attributed to the banks' profits. Furthermore, Common Equity Tier I Capital grew this year by 5.7 percent and risk assets grew by 3.6 percent (Table 1.9). **This resulted in some increase in the Common Equity Tier I Capital ratio, which in December 2017 stood at 10.9 percent, in comparison to 10.7 percent a year earlier (Figure 1.12).** This ratio for the five large banking groups exceeds the regulatory requirements (of 9 percent for the small and mid-size banks and 10 percent for the two largest banks, in addition to a capital cushion for housing loans at all the banks). The increase in equity was also reflected in the improvement of the leverage ratio (6.7 percent, compared to 6.6 percent in December 2016). In

¹⁷ Direct channels include Internet sites, apps, self-service points and telephone banking. It is worth mentioning in this context that the Banking Supervision Department has required the banks to reduce their fees for activities carried out through direct channels.

¹⁸ For example, the assimilation of technological innovations that are related to the day-to-day operations of the banks, including the use of cloud technologies to increase the efficiency of various processes and services (such as customer relationship management—CRM) and the use of software packages to streamline the process of analyzing customers and predicting their repayment ability.

addition the banks exceeded the level set by the Banking Supervision Department in accordance with the Basel III guidelines (Table 1.11). The leverage ratio is also high relative to leading banks worldwide (for further details, see Box 1.4: The Israeli Banking System’s Performance in International Perspective; Figure 13 in the Box). In contrast, the overall capital adequacy ratio fell during the year being surveyed by about 0.2 percentage points and at the end of the year stood at about 14.5 percent. This is due to the drop in Tier II Capital.¹⁹ In addition, the capital leniencies provided to the banks by the Banking Supervision Department in order to facilitate efficiency measures affected the Common Equity Tier I Capital ratio by an amount ranging from 0.1 to about 0.3 percentage points.



The cumulative increase in equity in recent years and the improvement in the core capital ratio create a new challenge for some of the banks, namely how to optimally use the accumulated capital surplus and allocate it among the possible uses. It may be—and this has importance for the economy as a whole—that the banks will use the surplus capital to first expand their core activity, such as extending credit

A new challenge faces some of the banks: How to optimally use accumulated capital surpluses.

¹⁹ The decline in Tier II Capital is due to the exclusion of capital instruments which are no longer eligible to be included in regulatory capital, in accordance with the transitional arrangements (Proper Conduct of Banking Business Directive no. 299 on “Regulatory Capital—Transitional Arrangements”). In addition, a number of banks have this year issued CoCo (contingent convertible) subordinated debt notes, which are included in Tier II Capital.

to various sectors of the economy. These surpluses support the ability of the banks to extend credit to companies and individuals in the economy who are seeking credit and have the ability to repay it, following the situation of until about a year ago in which there were banks for which capital constituted an effective constraint on the extending of credit, particularly to large firms. However, the demand for credit, particular among businesses, is not particularly high and an over-expansion of these activities is liable to lead to an oversupply of credit and/or overexposure to the capital market and to financial instruments. There are many other possibilities for the use of the accumulated surpluses and they are based on the principle that the correct use of the capital surpluses will enable the banks to position themselves in coming years in a changing business environment. Another option, which is commonly adopted in other countries, both in banking and other industries, is to return part of the accumulated profit to the investing public. This can be done, for example, through the distribution of dividends or the buyback of shares. There is no single answer to the question of how to use the capital surpluses and no correct solution based on only one possibility. It may be worthwhile to combine a number of options, both those mentioned above and additional ones.

A number of banks have requested approval from the Banking Supervision Department to increase the rate of their dividend payment to the investing public. Most of the banks' shares are held by the public (about 80 percent; Table 1.10), both indirectly through the pension funds, provident funds and mutual funds and directly, such that in this way the banks would be returning a significant proportion of their profits to the public. **The dividends distributed in 2017 totaled NIS 2.1 billion.²⁰ Apart from this, the five largest banks declared—with the publishing of their annual financial reports—the payment of dividends in the amount of NIS 800 million and Bank Leumi also announced a share buyback in the amount of up to NIS 700 million.**

²⁰ Four banks (Hapoalim, Leumi, Mizrahi-Tefahot and First International) distributed dividends during 2017. Discount Bank did not pay a dividend this year, but approved a dividend policy of up to 15 percent of its net profit starting from the first quarter of 2018.

Share Buyback

The buyback of shares is a widely accepted way for banks to distribute capital to investors, in addition to the channel of dividend payments. In many countries, the buyback of shares by the banks requires the approval of the regulators. In Israel, it is permitted by the Companies Law subject to a number of restrictions.

In a share buyback, the bank purchases its own shares. In this way, it reduces the number of shares traded in the capital market and also increases the share of each shareholder in its capital. The shares purchased are subtracted from the bank's capital, including its regulatory capital. Financial regulators in other countries generally condition a share buyback on the fulfillment of various conditions, including the prior approval of the regulator, proof that capital adequacy targets are being met in the present and with a view to the future, and the passing of stress tests.

A share buyback is essentially a distribution of capital, like the payment of a dividend; however, unlike a dividend, it is not a continuing and long-term commitment from the bank's point of view and therefore it is more flexible and provides a solution to periodic capital surpluses that have accumulated. The shares that the bank purchases can return to the market if the bank decides to again issue them.

4. MAIN DEVELOPMENTS IN BALANCE-SHEET AND OFF-BALANCE-SHEET ACTIVITY

The aggregate balance sheet of the banking system grew in 2017 by 2.4 percent and totaled about NIS 1,566 billion (Table 1.12). The balance sheet was affected to a great extent by the sharp appreciation of the shekel against other currencies, particularly the US dollar (9.8 percent) during this period. Removing this impact, the balance sheet grew by 3.9 percent, which is similar to the growth rates in previous years. This occurred against the background of the continuation of growth in GDP at a relatively high rate (3.4 percent). There is significant variation in balance sheet trends between the banks, with the mid-size banks leading the others.

On the asset side, net credit to the public has continued the upward trend of recent years (3.4 percent, and 4.4 percent net of the impact of the exchange rate) and it has led the overall growth in the balance sheet. However, and in contrast to previous years, the growth in credit this year was the result of both an increase in retail credit, which continued to grow, though at a moderate rate compared to previous years, and in business credit, which grew at a high rate relative to the past five years' average growth rate (for further details, see the section "The Credit Portfolio and

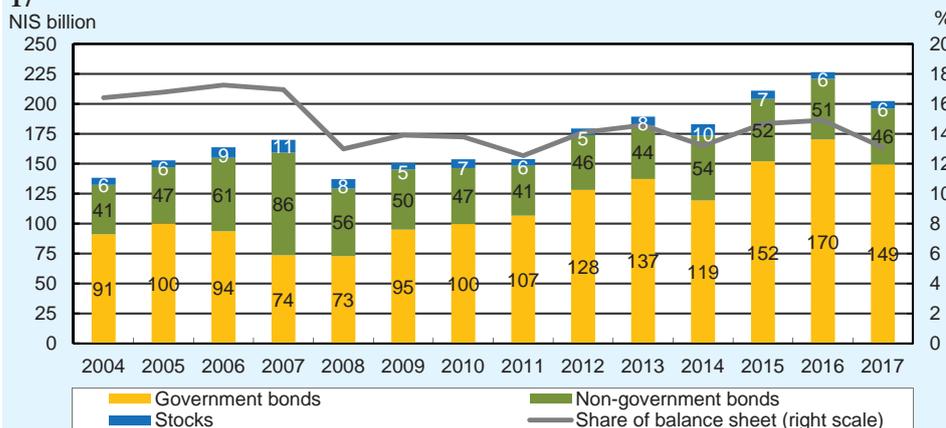
The balance sheet was affected this year to a great extent by the sharp appreciation of the shekel against other currencies. Net of the impact of the appreciation, the balance sheet grew at a rate similar to that of recent years.

On the asset side, retail credit has continued its upward trend, and a marked increase can be seen in the scope of business credit compared with its growth of recent years.

Credit Risk”). The growth in retail credit is in line with the continuing expansion of private consumption (3.3 percent)—against the background of a low interest rate environment and a low unemployment rate, which have created demand for credit among individuals—and with developments in the domestic housing market which contributed to the continuing expansion of the portfolio of housing credit (4 percent, which is low relative to previous years). In addition, the banks this year significantly increased the quantity of their cash and deposits at banks (10 percent, and 11.5 percent net of the impact of the exchange rate). In contrast, the banks reduced the size of the securities portfolio (9.9 percent, and 6.3 percent net of the effect of the exchange rate) and primarily their holdings of Israeli government bonds (Table 1.13). Therefore the proportion of the securities portfolio in the total balance sheet declined somewhat this year and stood at about 13 percent (as compared to about 15 percent last year; Figure 1.13).

The banks' securities portfolio declined this year against the background of a decline in holdings of government bonds, particularly those of the government of Israel.

Figure 1.13
The Total Securities Portfolio^a of the Israeli Banking System^b—Size and Composition, 2004–17



^a Excluding consolidated companies.

^b Including the five banking groups (Leumi, Hapoalim, Discount, First International, and Mizrahi-Tefahot), as well as Union Bank, Bank of Jerusalem, and Dexia Bank.

SOURCE: Based on published financial statements.

Despite the low interest rate environment, this year as well the trend of growth in the public's deposits continued, but this year some substitution was seen between demand deposits, which increased, and time deposits, which continued to decline.

On the liabilities side, there were two main developments: (a) The continuing accumulation of capital in all of the banking groups (5.8 percent), despite the supervisory approval given to the banks to pay dividends (for further details, see the section “Capital Adequacy and Leverage”); and (b) the continuing growth in the public's deposits (3.3 percent, and 5.6 percent if the impact of the exchange rate is removed) despite the low interest rate environment. The main part of the increase was in total deposits of businesses and institutional investors (particularly deposits of over

NIS 500 million), which was offset somewhat by the decline in the quantity of foreign currency deposits. An examination of the composition of domestic deposits shows a continuing upward trend in total demand deposits, alongside a drop in the amount of fixed-term deposits. The amount of bonds and subordinated debt declined (by 9.7 percent).

With regard to off-balance-sheet activity, total guarantees and commitments to provide credit increased this year at a moderate rate of 1.1 percent and totaled about NIS 483 billion (Table 1.14). The off-balance-sheet activity to some extent reflects the economic conditions, including the continuing expansion of private consumption, which was manifested in an increase in unused credit lines on credit cards (3.2 percent), and signs of a slowdown in the residential real estate market.²¹ The latter was reflected in a measure of stability in the amount of guarantees issued to home buyers, which declined by one half of a percent (compared to rates of increase of 12.4 percent and 11.2 percent in 2015 and 2016, respectively).

The activity of the banking corporations in derivative instruments, in notional values, grew this year (relative to the previous year) at a rate of 5.8 percent and totaled NIS 2,420 billion (Table 1.15). The increase was entirely due to the increase in the quantity of interest rate contracts (of about 6.9 percent) and of other types of contracts (39 percent).

5. RISKS

The main risks faced by the banking system have changed in recent years. The banking system is exposed to a variety of risks, including **credit risk, market risk, liquidity risk and operational risk**. A great deal of attention has been devoted to these risks over the years, with the goal of ensuring the stability and resilience of the banks. In recent years, as the business environment has evolved, additional risks have emerged and intensified as a result of developments in technology, regulation and legislation both in Israel and abroad, as well as changes in global banking and consumer preferences and behavior. As a result of the unique characteristics of these risks, it is difficult to fully identify them and it is particularly difficult to quantify and estimate the damage they can be expected to cause. The risks arising in the new business environment therefore present the banks with a major challenge and will require the modification of risk management and the tools it uses, both by the banks and by policy makers. **The Banking Supervision Department is working to achieve an optimal response that will minimize the various risks and strengthen the banks' abilities to deal with risks that are realized, learn the lessons from risks that have already materialized, and identify developing risks.** This is being accomplished through regulation and enforcement, the removal of barriers, the adoption of internationally

²¹ See "Survey of the Residential Real Estate Sector" by the Chief Economist of the Ministry of Finance, 2017.

accepted standards and the adaptation of supervisory capabilities. The new types of risk include the following:

- **Business model risk:** The business model needs to be adapted to the changing business environment, with the goal of achieving sustainable profitability. The structural changes in the competitive and technological environment, including the entry of new nonbank entities, the removal of technological barriers to competition, the development of innovative financial products and services and technological innovations that are changing customer behavior, together with increasing competition from nonbank entities and a high level of public and political intervention, are challenging the banks and require the adaptation of the business model to the current reality. To this is added a low interest rate environment, which is challenging the ability of banks both in Israel and worldwide to maintain a reasonable level of profitability. Therefore, the Banking Supervision Department required that the banks formulate long-term plans to increase efficiency, reexamine their business models and adapt them to changes in the business environment, with emphasis on the adoption of new technologies.
- **Regulatory risk:** In recent years, there have been numerous legislative initiatives in the areas of banking and finance. The activity of a number of regulators in this domain, the large number of measures they are attempting to implement in a short period of time and the complexity of these measures requires an effort on the part of the banks to assimilate these changes. They create a risk to the banks and their customers in that they change the business environment and are liable to even impair the ability to achieve the new targets set out in the legislation and regulations. The regulatory uncertainty has implications for the entry of new players into the market, the development of new products, the creation of new banking interfaces, etc.
- **Technological risk:** Technological progress and the growth of digital banking in Israel, as well as worldwide, have created new opportunities but also structural risks, such as the increased exposure to risks of fraud and information leakage; embezzlement; risks to business continuity; and risks resulting from the reliance on third-party technology and infrastructure (outsourcing). The Banking Supervision Department has in recent years increased its requirements of the banks on these issues and has also been a partner in the creation of the banking cyber center, in collaboration with experts in the field.
- **Conduct risk:** Banking systems worldwide are dealing with risks arising from unfair conduct toward customers that does not involve a violation of the law. Thus, there are increasing expectations that banks will take action on this issue and there is also increasing awareness of this issue among customers. This trend is increasing conduct risk and is creating a major challenge to the banks to maintain fairness, integrity and transparency in doing business. The Banking Supervision Department has defined clear rules for expected conduct toward customers (particularly in the area of credit marketing) and is focusing on the assimilation of a policy designed to increase competition, fairness and transparency towards customers.

- **Cross-border risk:** Growing efforts at enforcement by the regulatory authorities in various countries against financial institutions in the areas of non-compliance by customers, tax evasion by customers, money laundering and financial crimes are requiring the banks to take measures such as the identification of activities and customers that are liable to expose them to investigations and fines for non-compliance. In view of the investigations of some Israeli banks by the US authorities in recent years with respect to tax evasion by foreign customers that have deposited money in banks in Israel or in their branches abroad, the Banking Supervision Department has issued clear directives on the subject and has adopted a stringent approach to the management of risks arising from cross-border activity. In addition, the banks have significantly cut back their scope of activity abroad and with foreign residents.

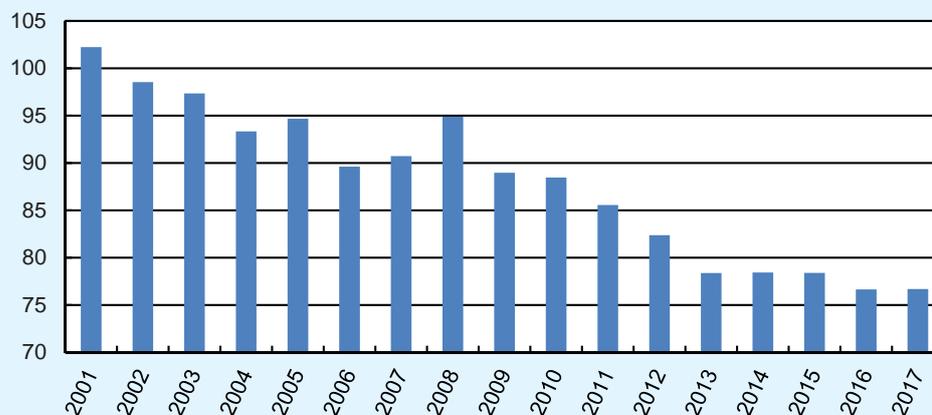
5.1 The credit portfolio and credit risk

In recent years, the composition of the banks' credit portfolio has undergone major changes, becoming more diversified and less risky. Alongside the increase in the quantity of credit, the banks have shifted from extending credit to large borrowers, to extending it to households and small businesses. This change has reduced credit risk by increasing the diversification of their portfolio and has strengthened support for the activity of small businesses and households. The risk of the portfolio has also been reduced by various limitations placed by the Banking Supervision Department on various types of credit, including leveraged credit and mortgages. The development of the capital markets and the increasing competition from institutional entities and their entry into the business credit market, as well as regulation requiring the banks to increase their capital ratios and weighed on the extension of credit, have led to a major reduction in the ratio of balance-sheet credit to GDP in the past decade (Figure 1.14), particularly in credit to the business sector. This year, the banks rebalanced their business targets and credit grew in a balanced manner in all of the customer segments, i.e., large businesses, mid-size businesses, small and micro businesses and households. Thus, the rate of increase in credit to households slowed as a result of its increased risk, while the rate of growth of business credit was more rapid than in recent years. The only segment that continued to decline was credit provided abroad, which was the result of the banks' reduction of their activity abroad.

Most of the increase in the credit portfolio derived from an increase in credit extended by medium sized banks.

Bank credit as a share of GDP has been in a downward trend for the past decade.

Figure 1.14
Ratio of Balance-Sheet Credit^a to GDP^b, the Five Banking Groups, 2001–17 (percent)



^a Net balance-sheet credit was used until December 2010. From 2011–gross credit to the public.

^b In 2013, the Central Bureau of Statistics changed the method of calculating National Accounts data, and revised all of the data series retroactively from 2006, including GDP data. The GDP level during the period from 2001 to 2006 was back-calculated according to the rate of change.

SOURCE: Based on published financial statements.

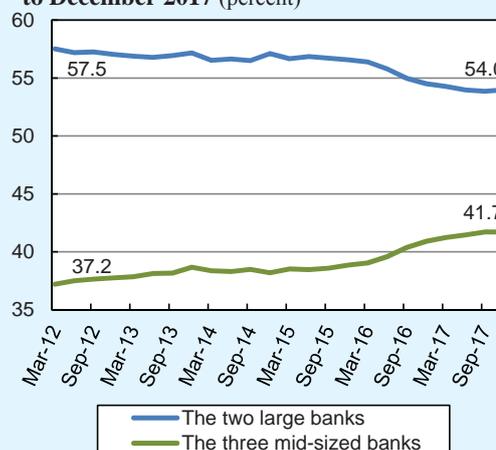
Growth in the credit portfolio was balanced between the business sector and the household sectors.

Developments in the credit portfolio

The balance-sheet credit portfolio of the five banking groups grew by about 3.5 percent and totaled NIS 968 billion (Table 1.2) and there was balanced growth in credit to the business and household sectors. The growth of the banks' credit portfolio this year was mainly the result of the increase in credit provided by the mid-size banks, a development that led to an increase in these banks' market share, at the expense of the two largest banks. The share of the mid-size banks in total credit is currently about 42 percent, compared to about 38 percent at the beginning of 2015 (Figure 1.15). Apart from this and after a number of years in which they hardly provided any credit to

The mid-sized banks' share of credit to the public increased, at the expense of the large banks' share.

Figure 1.15
Distribution of Credit to the Public^a between the Large and Mid-sized Banks^b, March 2012 to December 2017 (percent)



^a Balance-sheet credit to the public (activity in Israel), minus balances that are the responsibility of the credit card companies.

^b The large banks—Hapoalim and Leumi; the mid-sized banks—Mizrahi-Tefahot, Discount and First International.

SOURCE: Based on published financial statements.

large businesses and instead focused on households and small and micro businesses, the banks this year altered their composition of credit by increasing credit to large businesses. **Thus, the rate of increase in total credit provided to households in 2017 was moderate relative to previous years** (3.9 percent, compared to an average rate of increase of about 7.4 percent during the past 5 years).

The total growth in credit to households was the result of an increase of about 3.8 percent in total consumer credit and about 4 percent in housing credit, which are lower than the average rates during the last five years (of about 6.4 percent and 7.9 percent, respectively). Despite the significant growth of credit to households in recent years, their level of indebtedness is not high. In particular, the ratio of housing debt to GDP is low in comparison to other countries and the ratio for consumer credit is similar to the average of the eurozone countries (for further details, see Box 1.2—Households' Participation in the Loans Market and Their Financial Vulnerability).

During the last two years, numerous policy measures have been adopted to increase competition in the market for consumer credit, which has led to an increased supply of credit and the entry of new players into the credit market. The competition in the extending of consumer credit is expected to continue to heighten in coming years. Moreover, the credit card companies, some of which will likely be separated from the banks in coming years, have significantly increased their share in the market for consumer credit (for further details, see Box 2.1—Competition and the Changes in Competition in the Israeli banking system).

Despite the relatively low rate of increase in consumer credit, loans secured by a vehicle grew this year at a high rate of about 13 percent. In view of the increased exposure to the vehicle sector—with the increase in car loans and in view of the indicators of an increased level of risk of some business borrowers in the industry (and in particular the leasing companies)—the Banking Supervision Department this year published a directive that is meant to ensure that the banks recognize the risk implicit in credit to this industry and in particular that the procedures for underwriting and controls in the banks and credit card companies provide a suitable response to the increased risk. Nonetheless, it is worth mentioning that the risk of a car loan is usually lower than that of a consumer loan with similar characteristics, due to the collateral provided.

The rate of growth of business credit rose this year to 4.7 percent. This followed several years of low and even negative rates of growth (of only about 0.35 percent on average during the last five years). The growth in this type of credit occurred in all the business activity segments and primarily in credit to small and micro businesses, which grew by about 6.6 percent, and credit to large businesses, which grew by 4.3 percent following a downward trend in recent years. There was somewhat more moderate growth of 3.3 percent among mid-size businesses. The growth in credit in the various business segments varied significantly between the banks. A breakdown of business credit by industry reveals that the main change was a result of credit to the construction industry, which grew this year by a rate of 21.6 percent (see below

Policy measures taken in the past two years led to an increase in supply of credit to households and to the entry of new players into the market.

The growth rate of consumer credit from the banks in 2017 was lower than in previous years, but credit secured by a vehicle grew by a high rate this year.

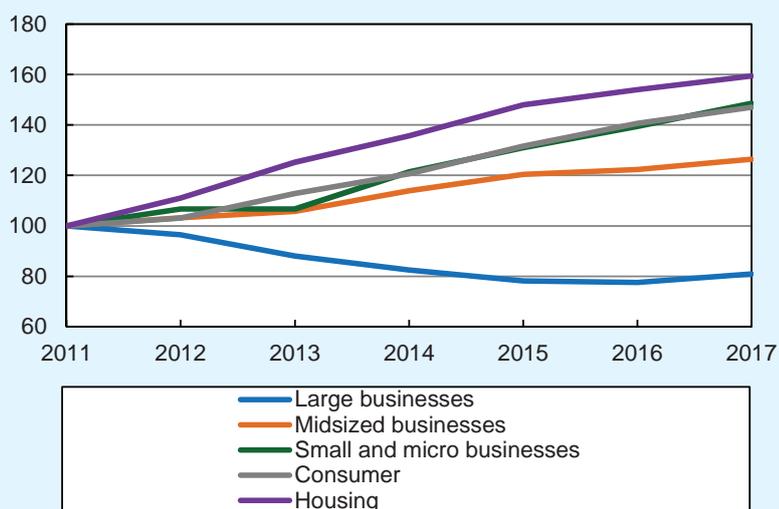
In 2017, the growth rate of credit to businesses was higher than in previous years.

for further details). Credit provided abroad declined by 4.3 percent, similar to its development in the previous year (Figures 1.16 to 1.19).

Credit increased this year in all activity segments.

Figure 1.16
Estimated Development of Credit^{a,b} in the Various Activity
Segments, the Five Banking Groups, 2011–17

(Index: December 31, 2011=100)



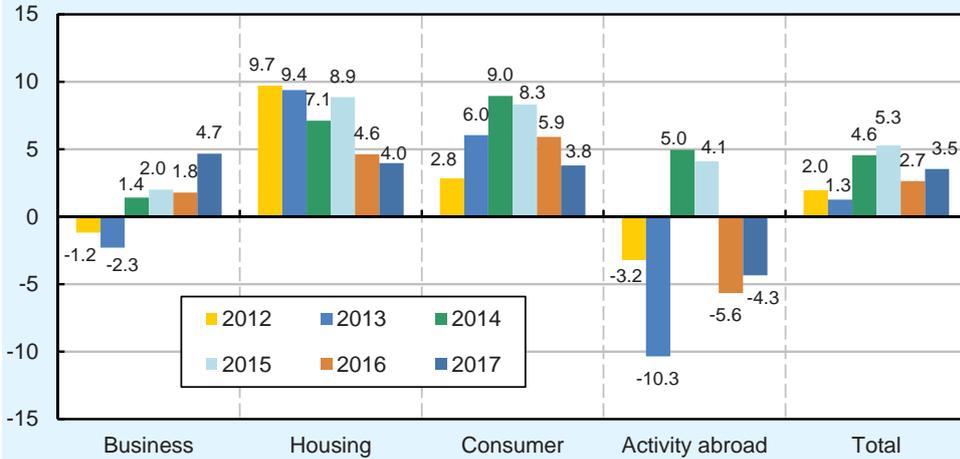
^a The development of credit between 2011 and 2015 is calculated on the basis of activity segment definitions by each of the banking groups. The rate of change since 2016 is calculated on the basis of the regulatory activity segment definition.

^b In the first quarter of 2013, the Discount Group reclassified credit to the various activity segments, and in the fourth quarter of 2014, the First International Group reclassified credit to the activity segments. During 2016, the Leumi Group reclassified customers from the small and micro business sectors to the large and midsized business sectors. As such, the data were standardized.

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

The growth in credit was balanced this year—the growth in credit to most industries was similar.

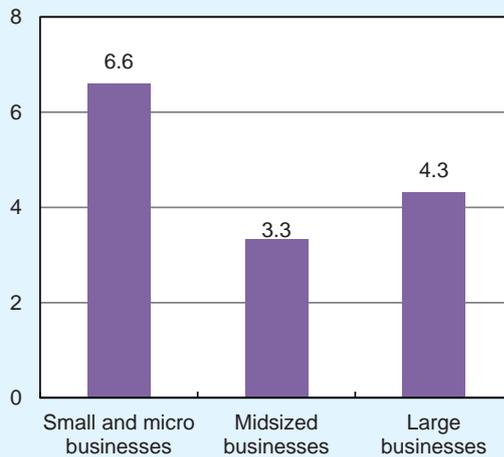
Figure 1.17
Annual Change in Outstanding Balance-Sheet Credit to Principal Sectors, the Five Banking Groups, 2012–17 (percent)



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

Credit to small and micro businesses increased more than credit to the other business segments.

Figure 1.18
Rate of Change in Outstanding Credit to the Business Activity Segments^a, the Five Banking Groups, 12/2016 and 12/2017 (percent)

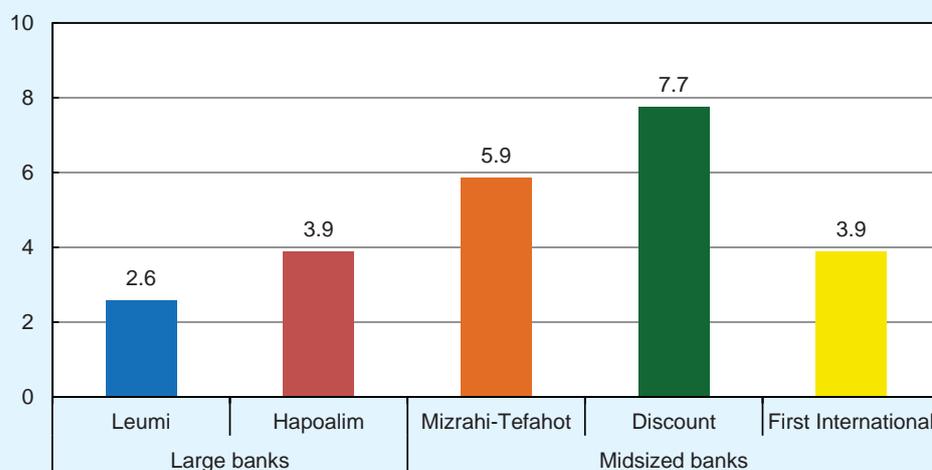


^a The data relate to activity in Israel.

SOURCE: Based on published financial statements.

The midsized banks are growing faster than the large banks.

Figure 1.19
Change in Credit to the Public^a in 2017, the Five Banking Groups (percent)



^a Activity in Israel.

SOURCE: Based on published financial statements.

Currently, many policy steps and reforms are being promoted. They are intended to enhance the competition in the banking system and to remove the barriers to entry into it.

The interest rate on credit

An analysis of the supervisory segments of activity reveals that the average rates of interest on retail credit²² (not including housing credit) are higher than for large and mid-size businesses (Figure 1.4). **This difference is explained by a number of factors, including operating costs, the level of competition, funding costs, and different levels of risk.**

The banks bear significantly higher operating costs in consumer credit and credit to small and micro businesses than in credit to large and mid-size businesses. This is because credit to the former requires the maintenance of a large number of branches, which involves a large investment in physical and human resource infrastructure. In contrast, the activity among large and mid-size businesses is concentrated in a relatively limited number of locations, where the customers' scope of transactions and credit are higher and therefore the operating cost is lower. The level of competition also affects the interest rates in the various sectors. Thus, the high accessibility of nonbank credit substitutes for large businesses, such as the capital markets in Israel and abroad, credit from financial institutions and credit from foreign banks, creates a broader supply of credit and is reflected in the high level of competition over borrowers and a lower price of credit. As in the past two years, competition in consumer credit and credit to small and micro businesses is expected to continue growing in the near future. This is the result of the policy measures and reforms that are meant to remove

²² Credit to households and to small and micro businesses.

the barriers to entry into banking and to allow new entities to enter the credit market, steps that are currently being implemented. With respect to the level of risk, a bank sometimes lacks accessible and full information on the financial situation of small and micro businesses (unlike the rest of the business sector). As a result, it may not be able to correctly price the additional risk in providing them with credit. In this context, it is worth noting that in recent years the risk in retail credit has increased (for further details, see Box 1.1—The Growth of Credit to Small Businesses in Recent Years).

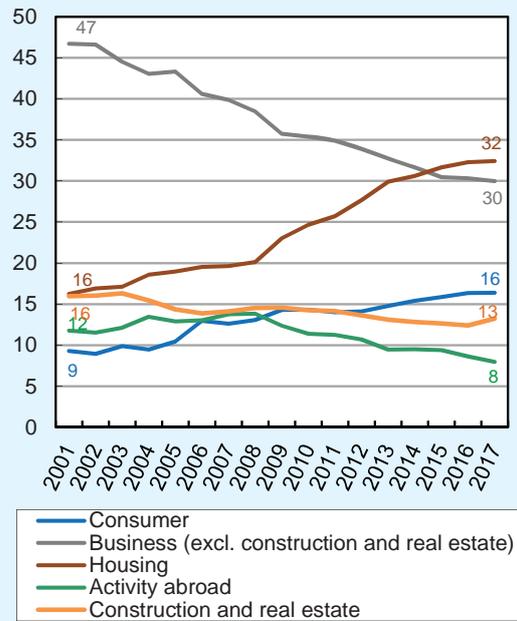
Credit risk

Credit risk rose slightly in 2017 relative to 2016, although it remained relatively low. This is to be viewed against the background of the macroeconomic environment which is supporting borrowers' ability to repay their debts. This

includes a high rate of growth, a low interest rate environment, an increase in the average wage, high rates of employment and a low rate of unemployment. Credit quality indicators present a mixed trend for the various segments, but they remain low relative to other countries. Thus, as in recent years, **the share of credit losses in the banking portfolio remained low, due to the low provisions and the collection of past debts.** Nonetheless, the construction and real estate industry is a significant source of risk in the credit portfolio; together with the exposure to housing credit it constitutes more than 45 percent of the portfolio (Figure 1.20). Although the exposure has not changed significantly in recent years, the risk originating in housing has declined and this is due to the stringent limitations on mortgages put in place by the Banking Supervision Department, as well as the capital buffers and the provision accumulated by the banks against the mortgage portfolio.

Exposure to the construction and real estate industry and to housing credit together account for more than 45 percent of balance-sheet credit.

Figure 1.20
Distribution of Balance-Sheet Credit by Sector, the Five Banking Groups, 2001–17
(percent)



SOURCE: Published financial statements and reports to the Banking Supervision Department.

Indicators of the credit portfolio's quality point to some increase in the risk deriving from the small business and the consumer sectors.

In addition, the banks in recent years have been selling credit portfolios and carrying out syndicated financing deals, both within the banking system and outside it (with financial institutions), in order to reduce credit exposure and concentration while continuing to support economic activity.

The quality of the credit portfolio²³

The various indicators used to measure the quality of credit compare favorably with those of other countries (Figures 9 and 11 in Box 1.4—The Israeli Banking System's Performance in International Perspective). Loan loss provisions as a share of within total balance-sheet credit to the public rose to 0.14 percent, which is lower than in previous years (though somewhat higher than in 2016 when it was 0.1 percent). The ratio of net write-offs to total balance-sheet credit to the public rose to 0.2 percent (in contrast to 0.13 percent in 2016). In contrast to these indicators, there was a decline in the share of impaired credit and unimpaired credit in arrears of more than 90 days within total balance-sheet credit and also in the share of problematic debt within total balance-sheet credit to the public. The coverage ratio²⁴ rose to 91.8 percent from 78.6 percent in 2016 (Table 1.19).

The indicators of credit portfolio quality show variation among the various activity segments and point to an increase in risk in small and micro business credit and in consumer credit. The ratio of loan-loss provisions in the small and micro business sector grew (to 0.6 percent from 0.37 percent in 2016). The ratio in this segment is the highest within the business sector (Table 1.17; Figure 6 in Box 1.1 – Growth of Credit to Small Businesses in Recent Years). A similar trend can be seen in the rates of write-off. The rate of loan-loss provisions in respect of consumer credit for all five banks did not change significantly. Thus, Bank Leumi had a sharp decline in this category while the rest of the banking groups recorded increases (0.95 percent as opposed to 0.72 percent in 2016 for four of the large groups—without Leumi). The share of write-off within total consumer credit also increased slightly (0.66 percent as opposed to 0.6 percent in 2016). The rates of problematic debt relative to total credit declined in all the business segments while in consumer credit the rate of impaired credit and credit in arrears of more than 90 days relative to total credit remained unchanged.

The background reasons for the increase in loan-loss provisions in consumer credit and small and micro business credit are the rapid growth in these types of credit in recent years and the change in bankruptcy regulation. Apart from this, the banks in recent years have been working to promote restructuring processes and “soft collection” among consumer customers in order to provide borrowers in financial distress with easier conditions for the repayment of their debts. Therefore, the rate of debt restructurings for consumer customers has risen. In order to further facilitate

²³ The data on business credit and consumer credit (“private individuals – other”) are taken from two separate reports that have differences between them.

²⁴ The ratio between the credit loss allowance to impaired credit to the public and unimpaired credit to the public in arrears of more than 90 days.

the collection of debt from the customer and to improve disclosure and fairness, the Banking Supervision Department published a directive for debt collection processes for consumer credit (Proper Conduct of Banking Business Directive no. 450) at the beginning of 2017. Its basic assumption is that debts are to be paid and the bank has the right to take legal steps in order to do so; however, it is expected that the bank will exhaust any gentler methods of debt collection before resorting to legal channels. The legislation and reforms carried out in recent years in the areas of debt collection and bankruptcy procedures were also intended to make things easier for borrowers who are having difficulty repaying their debts and to enable them to rehabilitate themselves. However, there is concern that these leniencies will encourage customers to choose bankruptcy proceedings in order to eliminate their debts. Evidence of this is the number of receivership orders issued in 2017, which reached 19,690, an increase of about 23 percent relative to 2016. This situation is liable to motivate the banks to tighten their rules for underwriting and to raise the interest rates to borrowers.

Concentration in the credit portfolio

The concentration of the banks' credit portfolio declined markedly during the past decade. The banks have significantly reduced their exposure to large borrowers, particularly large and leveraged borrower groups and they have also improved their risk management. The share of the 100 largest borrowers in the credit portfolio declined from about 17 percent in 2007 to about 10.3 percent in 2017. The share of credit to large borrowers, which exceeds 10 percent of the banks' total capital, has declined significantly, from a rate of more than 500 percent in 2008 to only about 53 percent in 2017. Similarly, total credit to the 10 largest borrowers has declined by about NIS 67 billion or about 39 percent (for further details, see Box 3.3—Tightening of restrictions on credit to large borrowers and its implications for credit concentration).

The decline continues in credit concentration by borrower size.

Credit to the construction and real estate industry

Credit to the construction and real estate industry grew by about NIS 12.2 billion this year (an increase of 11 percent relative to 2016) to NIS 128.2 billion or 30.6 percent of total business credit (an increase of 1.6 percentage points relative to 2016). This increase is a result of the significant growth in the construction industry (primarily construction activity: development of construction sites, building of whole or parts of structures, carpentry and metalworking, installation of water, electricity, air conditioning and other systems, finishing work, renovations and repair of structures, and assembly and placement of readymade structures; and civil engineering activity: earthmoving, paving and infrastructure, other engineering activity, and leasing of construction or demolition equipment with an operator). Credit to the construction industry, which constitutes 54 percent of total credit to the construction and real estate industry, grew in 2017 by 21.6 percent relative to the previous year, following an average growth rate of 3.5 percent during the previous five years. The growth this year

This year the banks markedly increased the scope of credit to the construction and real estate sector.

was primarily a result of the change introduced by Banking Supervision Department in the limitation of indebtedness to the construction and real estate industry in September 2016. It changed the way the limit of indebtedness to the construction and real estate industry is measured, allowing the banks to recognize sales of credit risk they have carried out,²⁵ which enables them to increase the supply of credit to the industry. In addition, the increase in credit to projects within the “Buyer’s Price” framework has also contributed to this growth. In contrast, the quantity of credit to the real estate industry (whose main activity is real estate trade and intermediation, rental, management and maintenance, collection of rent and related activities) remained unchanged relative to 2016, which was a continuation of the growing reliance of this industry on non-bank sources, including stocks and bonds.

With regard to credit risk, the downward trend continued this year in the credit risk of the construction and real estate industry according to the various indicators (Table 1.18). However, the risk to the banks from the exposure of the industry is significant and is first and foremost due to its size and its large share in the credit portfolio, as well as the high level of correlation between credit to the industry and housing and consumer credit.

Housing credit

In 2017, signs of slowing were seen in the mortgages market.

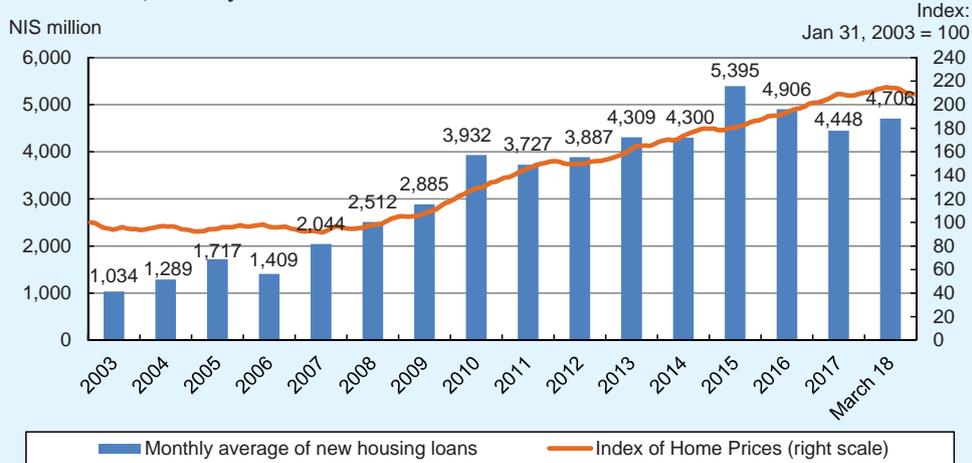
Since the end of 2016, there have been clear signs of slowing in the mortgage market, which are reflected in a decline in new mortgage volume relative to previous years and the drop in the interest rates during the course of the year. The housing credit portfolio grew this year by 4 percent, which is lower than in previous years (average annual average growth of about 7.9 percent in the past five years; Figure 1.17). The monthly average volume of housing loans provided in 2017 stood at about NIS 4.4 billion,²⁶ compared to NIS 4.9 billion in 2016 (Figure 1.21). With respect to prices, the interest rate for all indexation bases fell relative to the end of 2016. This followed an upward trend in interest rates from mid-2015 until the end of 2016 (Figure 1.22). There was no major change in risk indicators relative to the previous year, although in recent years the risk of the mortgage portfolio fell according to a number of major indicators. The size of the average loan in the portfolio remained similar to that in previous years and the average period to maturity shortened somewhat. In contrast, the quantity of mortgages taken out with high loan-to-value (LTV) rates (between 60 and 75 percent) increased somewhat; however, it is important to note that in 2016 credit with high LTV rates declined markedly (Figure 1.23). In addition, at the beginning of

²⁵ Thus, credit risk arising from Sale Law guarantees, against which the banks obtained insurance from insurance companies abroad, is classified primarily in the financial services industry rather than in the construction and real estate industry. For further details, see Proper Conduct of Banking Business Directive no. 315.

²⁶ This figure includes transactions in which the funds were not provided by the bank but the bank services the loan, such as the provision of joint mortgages together with financial institutions and mortgage portfolios that were partly sold to financial institutions. The total without these transactions stood at NIS 4.2 billion in 2017.

The volume of new mortgages declined in 2017.

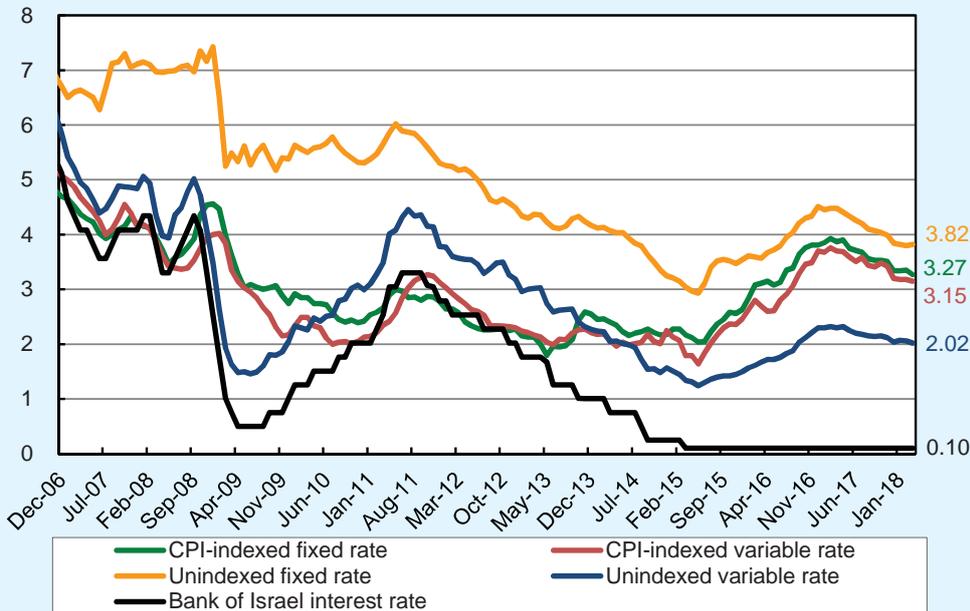
Figure 1.21
Monthly Average of New Housing Loans Granted^a, Total Banking System, and Index of Home Prices, January 2003 to March 2018^b



^a Including loans that are not from bank funds but are administered through the banks.
^b The index of home prices is up to date as of February 2018.
 SOURCE: Based on reports to the Banking Supervision Department.

Mortgage interest rates are in a downward trend in all tracks.

Figure 1.22
Interest Rates on Housing Loans by Interest Rate and Indexation Tracks, Total Banking System, December 2006 to March 2018 (percent)

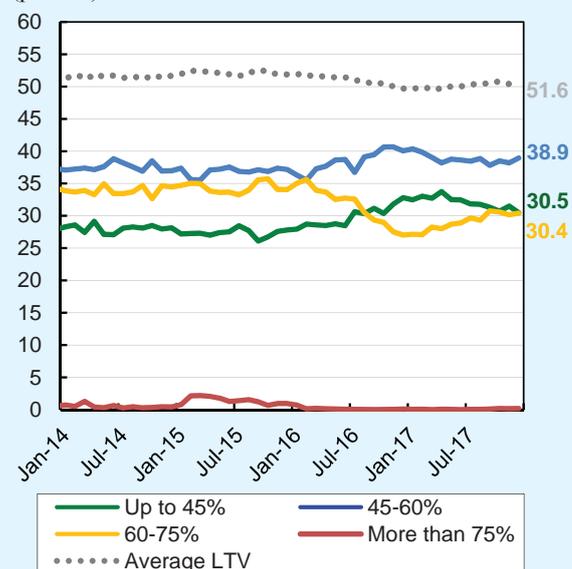


SOURCE: Based on reports to the Banking Supervision Department.

2018, the Banking Supervision Department changed the way in which banks weight risk assets in respect of mortgages with LTV rates of 60 to 75 percent. This was in order to enable customers who are taking out a mortgage and have repayment ability to more fully exploit their ability to purchase a home with equity of 25 percent (or 30 percent for home upgraders) and also to avoid a situation in which customers take out a mortgage at an LTV rate of less than the maximum but supplement their equity with a more expensive consumer loan that is less appropriate for the purchase of a home. This change is also expected to increase the proportion of credit at high LTV rates (up to 75 percent) in coming years.

The volume of new mortgages taken out at high LTV (60-75 percent) increased slightly after declining significantly in 2016.

Figure 1.23
Distribution of New Mortgages by LTV Ratio, Total Banking System, Jan. 2014 to Dec. 2017 (percent)



SOURCE: Reports to the Banking Supervision Department.

The exposure to the housing market is a significant focal point of risk for the banking system; however, due to the steps taken by the Banking Supervision Department, which tightened the rules in this area, the risk has declined in recent years. The Banking Supervision Department has adopted a number of regulatory measures over the years in order to reduce the risk originating in the housing market and the exposure of the banks to this risk. In 2017, in view of the reduction in risk in this portfolio, the Banking Supervision Department concluded that there are areas in which more lenient measures for the borrowing public are possible. Furthermore, the Banking Supervision Department instituted regulations this year that apply to the banks' mortgage advisors and established guidelines for their conduct. The Banking Supervision Department published a specific directive on this subject, which emphasizes the importance it attributes to the activity of the advisors who contribute to increasing the competition between the banks and the negotiating power of the consumer.

An analysis of the market for housing credit shows that the supply of housing credit grew in 2017, but that the demand for mortgages declined. The increase in supply was the result of, amount other things, the achievement by the banks of the

regulatory capital targets and the accumulation of capital surpluses. Furthermore, the banks were able to increase the quantity of credit they provide due to collaboration with financial institutions (syndication deals) and the banks' sale to such institutions of parts of their mortgage portfolios. Indications of the reduced demand for mortgages can be found in the decrease in total homes purchased in 2017, alongside a decline in the index of home prices. According to Central Bureau of Statistics figures, the number of new homes sold during 2017 was about 20 percent lower than in 2016. Moreover, according to the Survey of Residential Real Estate carried out by the Chief Economist of the Ministry of Finance, there has been a downward trend in the number of transactions in residential real estate since the end of 2016—and in recent months there has even been somewhat of a drop in prices—which is a continuation of the longest downward trend since the beginning of the previous decade. In addition, the purchases by investors and of second-hand homes continued to decline. These developments were, as already mentioned, reflected in a decline in the monthly average volume of housing loans from about NIS 4.9 billion in 2016 to about NIS 4.4 billion in 2017.

As a result of these trends, the interest rate on mortgages fell this year for all indexation tracks. Nonetheless, the annual average interest rate remained higher than in 2016, since the level of the interest rate is affected by a wide variety of factors, such as the cost of capital (which includes the banks' cost of sources of financing and the cost of the capital cushion required for housing loans and other regulatory directives), the operating costs of a mortgage, the risk of the borrowers and the loans (including the risk arising from the high proportion of mortgages in the banks' credit portfolio) and the level of competition in the market.

The mortgage interest rate declined in the surveyed year on all indexation tracks.

5.2 The exposure to foreign countries and foreign financial institutions

The banks' exposure to foreign countries derives primarily from their activity abroad and the maintenance of foreign currency deposits by foreign residents at Israeli banks and branches abroad. This activity requires the banks to manage part of their assets in foreign currency. **In recent years, there has been a consistent downward trend both in the banks' activity abroad and in the sources of foreign currency resulting from the deposits of foreign residents at Israeli banks** (Figure 1.24).

In recent years, there has been a downward trend in the deposits of foreign residents in Israel. This is apparently due to the low interest rate environment, which has led depositors to seek more profitable investments, and against the background of strengthened regulatory requirements and the demands of the banks for supporting documents from their customers. The withdrawals by foreign residents from the banks in Israel since 2007 have totaled NIS 61 billion and as a result the proportion of deposits by foreign residents within total deposits in the banking system fell from 25 percent in 2007 to only 9 percent in 2017.

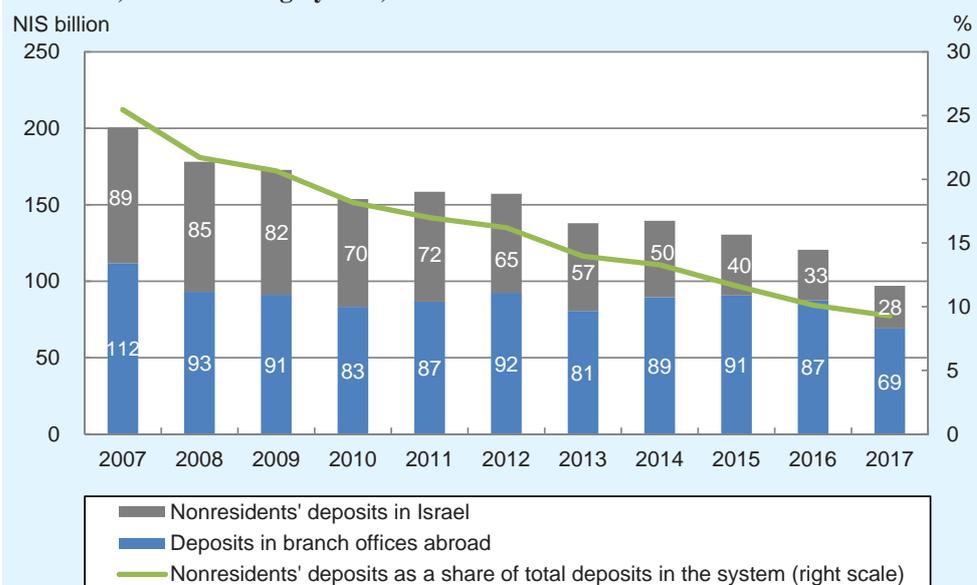
The exposure to foreign countries totaled NIS 161 billion in 2017, which constitutes 11 percent of assets, in contrast to NIS 167 billion in 2016 (Table 1.21). The reduction

in exposure was determined to a great extent by the appreciation during this period in the exchange rate of the shekel against other currencies and primarily the dollar. Furthermore, the decline was partly a result of the cumulative reduction in the net balance-sheet exposure to foreign branches, as part of the reduction in their activity and their number in recent years, based on the understanding that excessive dispersion exposes the banks to the risk of noncompliance with local laws and regulations.²⁷ In contrast, the banks' investment in US government bonds increased.

The balance-sheet exposure of the Israeli banking system to foreign financial institutions remained limited and in December 2017 it totaled NIS 47 billion, which constitutes 3 percent of their total assets (Table 1.22). As in previous years, the main activity of the banks abroad was with foreign financial institutions rated A- or better (93 percent; Table 1.22).

In the past decade there has been a sharp decline in nonresidents' deposits in Israeli banks.

Figure 1.24
Balance of Nonresidents' Deposits in Israel and of Deposits in Branch Offices Abroad, Total Banking System, 2007–17



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

²⁷ The Banking Supervision Department published a new directive in 2018 on “Supervision of Overseas Branches”. The directive, which adds to others on the same issue (and the main one, published in 2015, which relates to the management of risk in cross-border activity), requires the banks to reexamine their strategy abroad and to tighten the control over overseas branches by means of risk management mechanisms and internal and external auditing.

5.3 Liquidity risk

In recent years, the liquidity of Israeli banks has grown significantly and its quality has improved. This year, the liquidity coverage ratio (LCR)²⁸ declined following a consistent upward trend in recent years and a consistent decline in the exposure of Israeli banks to liquidity risk, though it remained higher than the minimum requirement set by the Banking Supervision Department (100 percent). The aggregate value of the LCR was about 125 percent in December 2017, compared to 135 percent in December 2016 and in contrast to about 143 percent among the leading banks in the EU. The decline in the LCR encompassed almost all of the banks, although the small banks, which enjoy large liquidity surpluses, were prominent (Figure 1.25 and 1.26). An examination of the LCR components shows that the erosion in its value was particularly due to the stability in total liquid assets this year (erosion in the first three quarters and accumulation in the fourth quarter) and the increase of net cash outflows during the second half of the year (Figure 1.27). The quality of the liquid assets remained high this year, exceeding that of the leading banks in the EU (Figure 1.28).

The composition of funding resources was eroded somewhat this year, with the increase in the share of wholesale deposits and an increase in the share of demand deposits, against the background of the low interest rate environment. However, the composition is still stable and it appears that the Israeli banks continue to rely on retail deposits as a major source of funding for their activity (about 52 percent) and less on wholesale financial deposits (about 25 percent) and other wholesale deposits (about 23 percent). The decline in the ratio of loans to deposits (Figure 1.29) supports this observation and points to a greater reliance by Israeli banks on the deposits of the public (which are more stable than other funding sources) as a major source of funding for their core activity.

²⁸ The LCR, developed by the Basel Committee to enhance the short-term resilience of banking corporations' liquidity profiles, indicates the quantity of HQLA (High Quality Liquid Assets) that corporations should hold in order to withstand a significant stress scenario that lasts thirty calendar days. The LCR is composed of two elements. The first, on the numerator side, is the inventory of HQLA (High Quality Liquid Assets), which is comprised of two levels of assets. Level 1 includes high quality assets that may be held in unlimited amounts, and Level 2 is composed of assets that are limited to a maximum aggregate holding of 40 percent of the HQLA inventory. (This level is divided into two sublevels: 2A and 2B. At the latter level, the share of assets that may be held is limited to 15 percent.) The second element, on the denominator side, is the total net cash outflow, i.e., the expected total cash outflow less the expected total cash inflow in the stress scenario. The expected total cash outflow is calculated by multiplying the balances of different categories or types of balance-sheet and off-balance-sheet liabilities by their expected runoff or drawdown rates. The total expected cash inflow is calculated by multiplying outstanding contractual receivables by the rates at which they are expected to be received in the scenario, up to a cumulative 75 percent of the predicted total cash outflow.

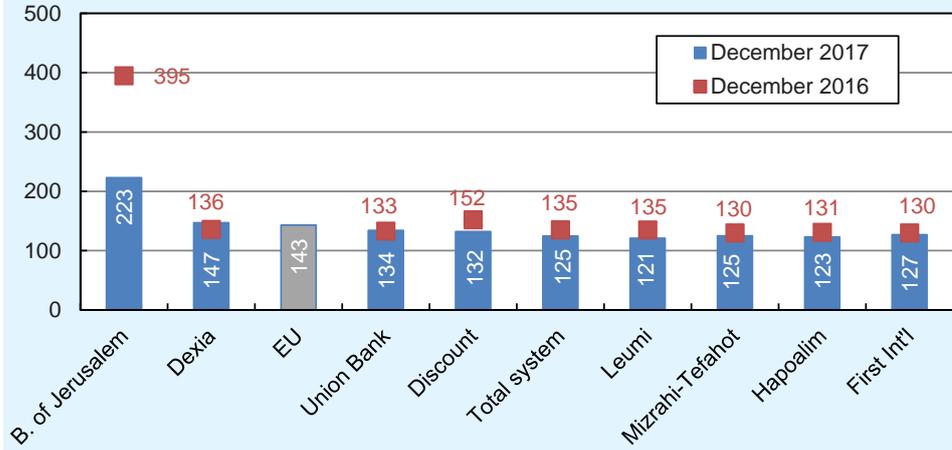
After several years of a consistent upward trend in the liquidity coverage ratio (LCR) and a consistent decline in the exposure of domestic banks to liquidity risk, the LCR declined this year, though it remains higher than the threshold requirements.

The quality of liquid assets continued to maintain a high level this year, and exceeded the quality of liquid assets of leading EU banks.

Israeli banks continue to rely on retail deposits as a main source of financing their activities, and less on wholesale financial and other deposits.

The liquidity coverage ratio at all banks is higher than the minimum required by the Banking Supervision Department.

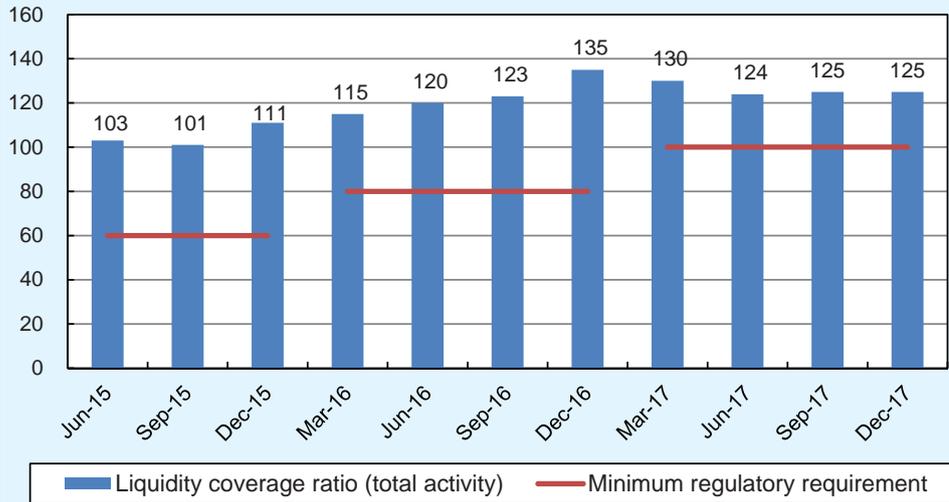
Figure 1.25
Liquidity Coverage Ratio (Total Activity)^a, Israeli Banks and the European Union^b, December 2017 compared with December 2016 (percent)



^a Calculated on a consolidated basis.
^b European Union values are the June 2017 averages. The values for Europe relate to the large and leading banks in each country that report to the European Banking Authority.
 SOURCE: Based on reports to the Banking Supervision Department, EBA.

Liquidity at the Israeli banks improved greatly in recent years, and has become higher quality.

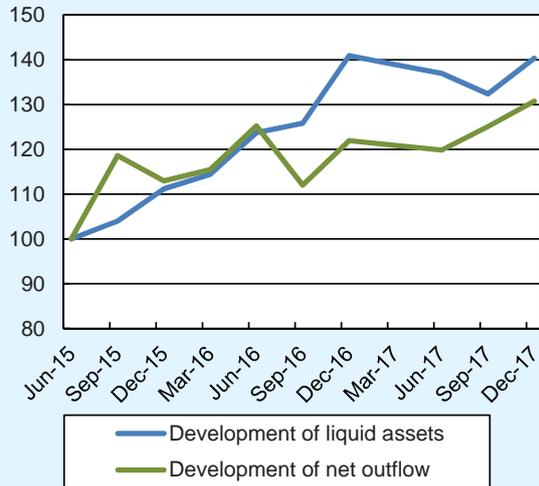
Figure 1.26
Liquidity Coverage Ratio (LCR), Total Banking System^a, June 2015 to December 2017 (percent)



^a Calculated on a consolidated basis.
 SOURCE: Based on published financial statements.

The liquidity coverage ratio has eroded despite stability in the value of liquid assets.

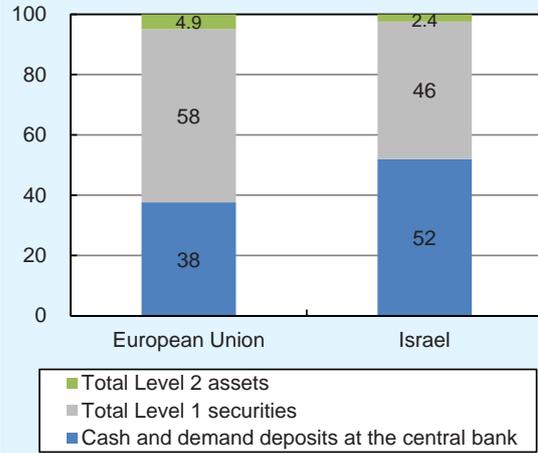
Figure 1.27
High-Quality Liquid Assets (HQLA)^a and Net Outflow, Total Banking System, June 2015 to December 2017 (Index: June 30, 2015=100)



^a As defined in Proper Conduct of Banking Business Directive 221.
 SOURCE: Based on reports to the Banking Supervision Department.

The quality of liquid assets remained high this year.

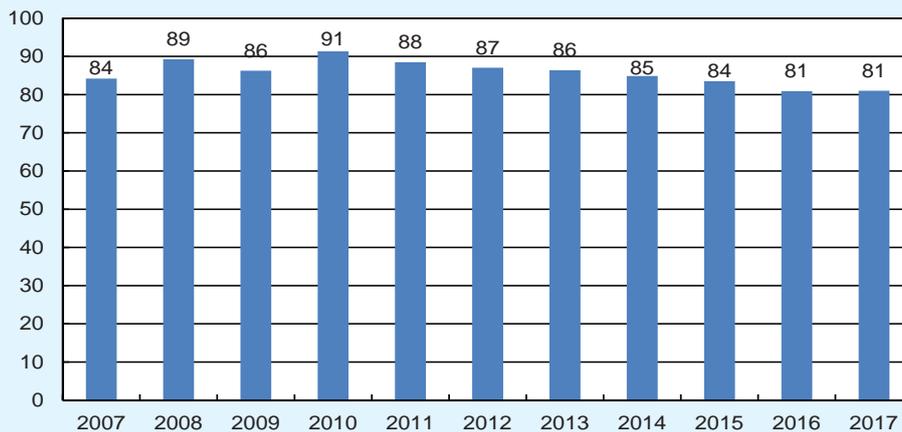
Figure 1.28
Composition of the Stock of High-Quality Liquid Assets of Banks in Israel^a and the European Union^b, December 2017 (percent)



^a Calculated on a consolidated basis.
^b European Union values are the June 2017 averages. The values for Europe relate to the large and leading banks in each country that report to the European Banking Authority.
 SOURCE: European Union data—EBA; Israel data—based on reports to the Banking Supervision Department.

The Israeli banks are increasing their reliance on deposits from the public as a stable source of financing for their activity.

Figure 1.29
Ratio of Credit to the Public to Deposits from the Public, Total Banking System^a, 2007–17 (percent)



^a Including the five banking groups (Leumi, Hapoalim, Discount, First International and Mizrahi-Tefahot), as well as Union Bank, Bank of Jerusalem, and Dexia).
 SOURCE: Based on published financial statements.

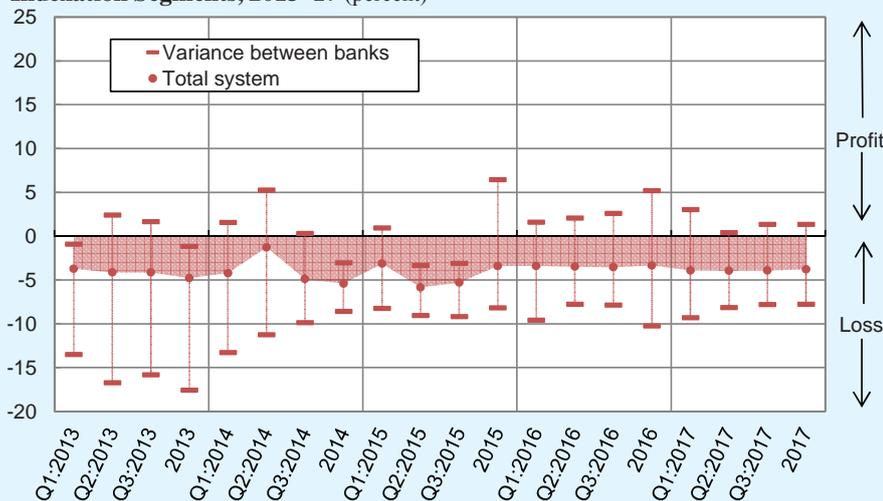
5.4 Market risk

The analysis of market risk in this section deals with the erosion of the fair value of the bank's capital as a result of changes in market conditions, such as the interest rate, the exchange rate, inflation and share prices.²⁹ In general, market risks are not high among Israeli banks and the main type—in some of the banks and in particular those whose main activity is mortgages—is interest rate risk.

The level of exposure to interest rate risk³⁰ in 2017 remained similar to that in 2016. Most of the banks are exposed to an increase in the interest rate, as was the case in previous years. The potential erosion in the net fair value of the bank's capital³¹ at the end of 2017 as a result of an increase of one percentage point in the interest rate ranged from 5.1 percent to 7.8 percent of the fair value of the bank's capital³² (Figure

The banking system is exposed to an increase in the interest rate, similar to the situation in previous years.

Figure 1.30
Rate of Change in the Net Fair Value of Capital of the Five Banking Groups as a Result of an Increase of One Percentage Point in the Interest Rate, Total Indexation Segments, 2013–17 (percent)



SOURCE: Published financial statements and reports to the Banking Supervision Department.

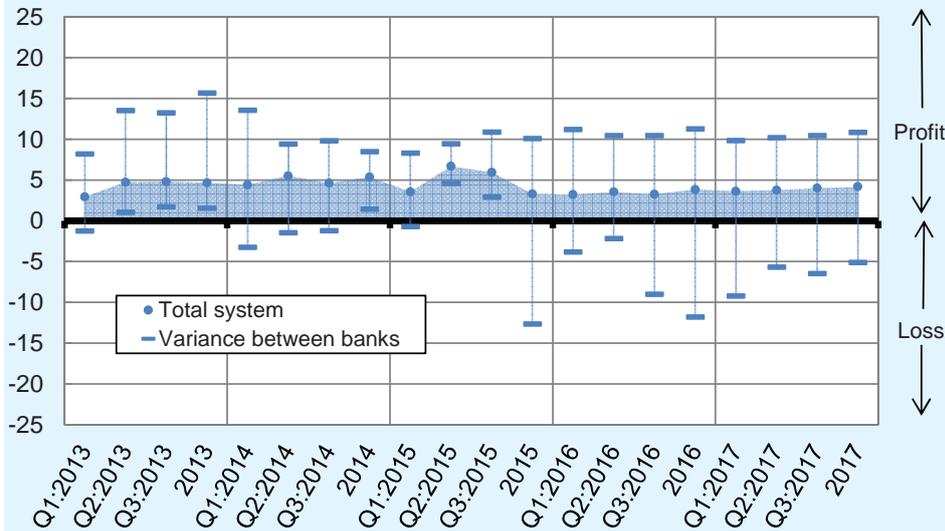
²⁹ It is worth noting that the risk of changes in the interest rate is measured via other approaches as well, such as the adverse impact on profit or equity which is not necessarily reflected in the fair value of the bank's capital. In this chapter, in general, we will not be discussing other approaches; we will only relate to the potential erosion in the fair value of the bank's capital.

³⁰ In this chapter, the risk as a result of changes in the interest rate will be measured according to the potential erosion in the fair value of the bank's capital. It is worth emphasizing that there are also other approaches, such as those based on the reduction in profit or in equity.

³¹ The net fair value of a bank's capital is equal to the difference between the fair value of its financial assets and that of its financial and other liabilities in all indexation bases, together with the effect of derivative financial instruments which it possesses.

³² The calculation is taken from the reports of the banking groups' boards of directors. These reports show how parallel hypothetical changes in the rates of interest affect the net fair value of the banks' financial instruments and those of its consolidated companies.

Figure 1.31
Rate of Change in the Net Fair Value of Capital of the Five Banking Groups as a Result of a Decline of One Percentage Point in the Interest Rate, Total Indexation Segments, 2013–17 (percent)



SOURCE: Published financial statements and reports to the Banking Supervision Department.

1.30). Only Bank Leumi is exposed in the CPI indexation segment to a decline in the interest rate, which is due to the notable effect of the interest rate on its liabilities to its employees (Table 1.23).

The exposure to indexation base risk remained similar to its level in 2016. The potential loss as a result of a maximal change in the exchange rate and the rate of inflation³³ was NIS 291 million, which constitute 0.3 percent of the five largest banking groups' capital (Table 1.24).

In the CPI indexation segment, most of the banks were characterized by a surplus of assets over liabilities in 2017, as was the case in recent years, and therefore they were exposed to an unexpected drop in prices. In the foreign currency segment, some of the banks were exposed to a depreciation of the shekel exchange rate due to the surplus of liabilities over assets in this segment while others were exposed to an appreciation. The level of exposure of most of the large banks to the exchange rate was similar to last year. During the course of the year, there was a large appreciation of about 10 percent in the exchange rate of the shekel against the dollar, a development that had a positive impact on the profits of some of the banks and a negative effect on the profits of the others.

³³ The maximum change in inflation and the exchange rate is set according to the monthly changes that have occurred, respectively, in inflation expectations and the nominal exchange rate of the shekel against the dollar during the last 7 years, on the assumption of a normal distribution and at a confidence level of 99 percent.

6. THE CREDIT CARD COMPANIES

The credit card companies are going through a period of many challenging changes.

The credit card companies continued to increase the credit they extend, primarily to households, so that the share of credit they extended out of total credit to this sector increased.

The credit card companies³⁴ have gone through numerous changes and processes in recent years, from both the business and regulatory perspectives. The companies are dealing with significant challenges—a situation that is likely to continue in the future—primarily as a result of the expected separation of two of them from the two largest banks and against the background of financial innovation, which is having a pervasive impact on payments overall. The main changes are manifested in the rapid growth in credit to households and some deterioration in its quality; the decline in revenue from payment card activity due to the reduction in acquiring fees for businesses; the increasing level of competition and the future reductions in the interchange fee; competition in the area of cooperation with various customer clubs; the adaptation of the payments sphere to technological changes and increasing competition from new players; and preparations for the sale of the companies and the formulation of a business model for the day after the spinoff from the banks, which has a large number of aspects—types of activity, sources of financing, etc.

In the financing sector (credit), there is continuing rapid growth in credit and primarily credit to households. Total balance-sheet credit under the responsibility of the credit card companies³⁵ totaled NIS 21.1 billion (Figure 1.32), an increase of 15.6 percent relative to 2016 (Figure 1.33). This rate of growth is similar to those in 2014 and 2015, though it is somewhat lower than in 2016 and is mainly due to credit to households (about 68 percent of the increase; Figure 1.34). The main factors that motivated the companies to focus on expanding credit to the public are the Enhancing Competition in the Banking System Law (the Strum Law), which requires the separation of two credit card companies from the two largest banks and creates the possibility of separating the third company³⁶, and the increased level of competition in merchant acquiring, which led the companies to diversify their sources of revenue. In addition, the growth in credit under the responsibility of the credit card companies was also affected by the low interest rate environment and the increase in private consumption, which are feeding the demand for consumer credit, while the banks are slowing the rate of expansion of consumer credit that they provide.

In parallel with the expansion in credit to households, the decline in the quality of credit appears to be continuing. Thus, the share of loan-loss provisions increased from 1.45 percent in 2016 to 1.92 percent in 2017, and the rate of write-offs increased from 0.91 percent in 2016 to 1.28 percent in 2017 (although in the last quarter of 2017 there was a slight improvement). Nonetheless, the growth in recent years in the rate of problematic debt has been halted and its share was about 6.2 percent of total

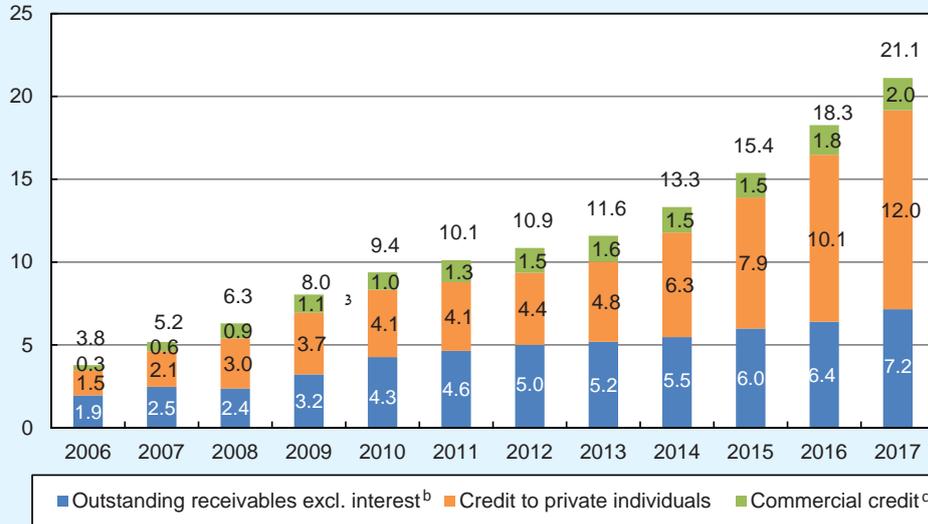
³⁴ For further details on the payment card industry, including an explanation of the various terms, see Israel's Banking System: Annual Survey 2015, Box 1.2—The Payment Card Industry and the Activity of Credit Card Companies.

³⁵ Including commercial credit, credit to individuals and total receivables without interest.

³⁶ In addition, the law requires the two largest banks to significantly contract the credit facilities they provide to households on their credit cards, which increases the demand of credit card owners.

Credit, mainly to individuals, continued to increase rapidly.

Figure 1.32
Outstanding Receivables and Credit Under Responsibility of the Credit Card Companies^a, 2006–17 (NIS billion)



^a Credit card companies: Cal, Leumi Card, IsraCard and Poalim Express.

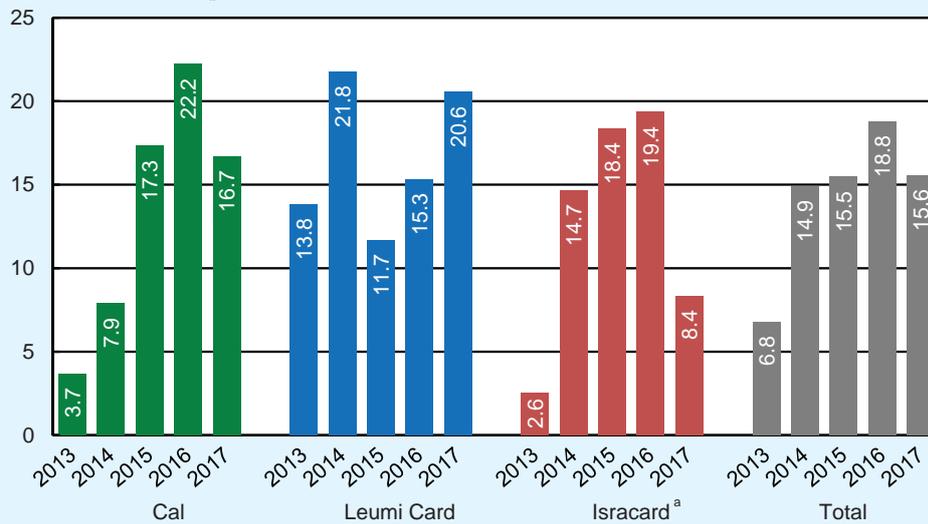
^b Outstanding receivables excluding interest includes ordinary transactions, transactions in installments funded by merchant, and other transactions.

^c Until 2012, commercial credit includes credit backed by the banks.

SOURCE: Based on reports to the Banking Supervision Department.

Credit increased at all companies, but mainly at Leumi Card.

Figure 1.33
Total Rate of Change in Balance-Sheet Credit Risk that is Not Backed by the Banks, 2013–17 (percent)

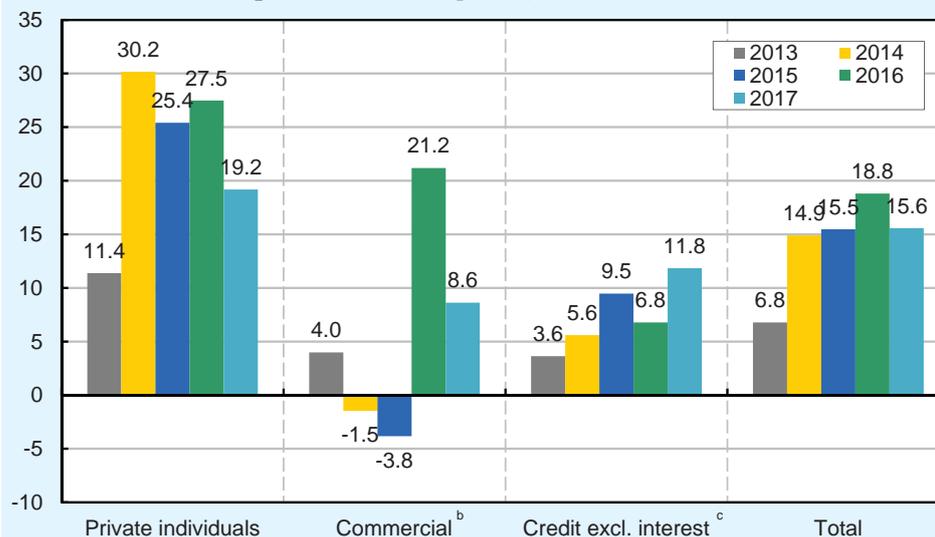


^a Isracard includes Poalim Express.

SOURCE: Based on published financial statements.

Credit increased this year at a pace similar to that of recent years, but there is considerable variance between the various credit segments.

Figure 1.34
The Rate of Change in Balance-Sheet Credit Risk that is Not Backed by the Banks, all Credit Card Companies^a, 2013–17 (percent)



^a Credit card companies: Cal, Leumi Card, IsraCard and Poalim Express.

^b Until 2012, commercial credit includes credit backed by the banks.

^c Credit excluding interest (credit cards): including ordinary transactions, installment transactions at the merchant's expense, and other transactions.

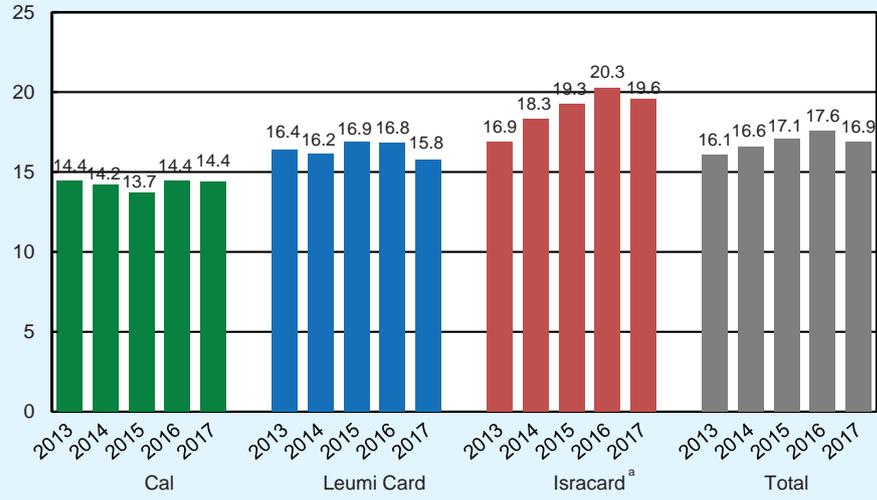
SOURCE: Based on reports to the Banking Supervision Department.

credit (similar to the rate in 2016). The decline in the quality of credit was a result of both the expansion of the retail credit portfolio, which encourages entry into new and riskier market segments, and the legislation and reforms carried out in recent years in the collection of debt and in bankruptcy proceedings, with the goal of making things easier for borrowers who are unable to repay their debts and facilitating their economic rehabilitation. These measures are liable to encourage customers to choose bankruptcy proceedings in order to get rid of their debts and as a result credit risk is increased.

The equity of the credit card companies continued to grow in 2017 (by 5.2 percent). However, the upward trend in the Tier I Capital ratio was halted and stood at 16.9 percent, in comparison to 17.6 percent in 2016 (Figure 1.35), as a result of the increase in credit risk assets (by 9.9 percent) and the payment of dividends. Nonetheless, it is important to note that the capital ratios are much higher than the regulatory requirements. The downward trend in return on equity in recent years (except for 2016; Figure 1.36) continued, with the amount of capital increasing while net profit remained unchanged.

The upward trend in the Tier 1 Capital Ratio has been halted.

Figure 1.35
Tier 1 Capital Ratio, Credit Card Companies, 2013–17 (percent)

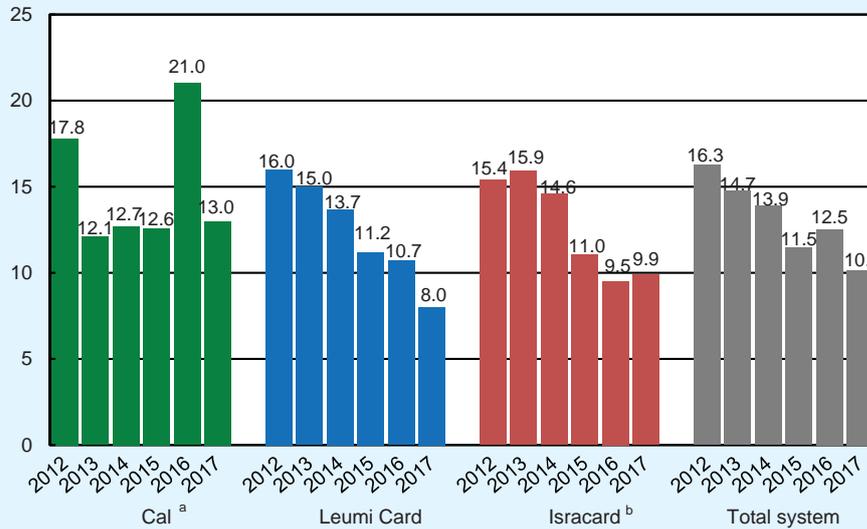


^a Isracard includes Poalim Express.

SOURCE: Based on published financial statements.

The downward trend of recent years in return on equity continued.

Figure 1.36
Return on Equity (ROE) After Tax, Credit Card Companies, 2011–17 (percent)



^a In 2016, Cal recorded income of NIS 263 million because Visa Inc. purchased Visa Europe Ltd. Excluding this effect, the ROE at CAL is about 14.2 percent for 2016.

^b Isracard includes Poalim Express.

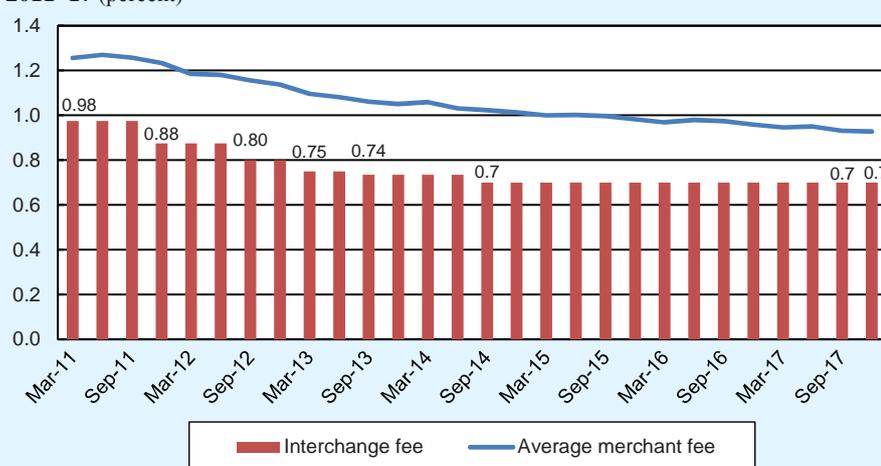
SOURCE: Based on published financial statements.

Due to the increasing competition in the acquiring market, a continued trend of decline in merchant fees was seen.

The credit card companies are dealing with numerous challenges in the business environment, including increasing competition from within and without. One of the main challenges is the drop in revenue as a result of the continuing downward trend in merchant fees (Figure 1.37), particularly among small businesses (Figure 1.38), which is evidence of the increased competition in the acquiring market.³⁷ The drop in merchant fees is also related to the entry of aggregators into the market and the program to reduce fees by American Express and Diners. It is also worth noting that the Banking Supervision Department has recently provided acquiring licenses to two companies (Transzilla and Cardcom), which are expected to compete with the credit card companies. The entry of these acquirers became possible in view of the change made in the process for granting acquiring licenses and the removal of barriers of entry into the market (including, among others, the lower capital requirements and the exemptions in liquidity management, which include the Banking Supervision Department requirements that the banks finance the liquidity needs for bank cards). In addition to competition in the settlement market, fierce competition has developed in customer club cards in recent years, which is eroding the profits of the credit card companies and increasing the clubs' share in revenues.

The downward trend in the average merchant fee continued—evidence of competition in the acquiring market.

Figure 1.37
The Average Merchant Fee^a and the Interchange Fee^b, All Credit Card Companies^c, 2011–17 (percent)



^a The average merchant fee is regarding credit cards issued in Israel.

^b The interchange fee is paid by the acquirer to the credit card company for its share of the cost of the debit transaction. Between 2012 and 2014, the interchange fee was reduced gradually from 0.975 percent to 0.7 percent, in accordance with an agreement between the Antitrust Commissioner and the credit card companies that was approved by the Antitrust Tribunal. Between 2019 and 2024, the interchange fee will be lowered gradually from 0.7 percent to 0.5 percent.

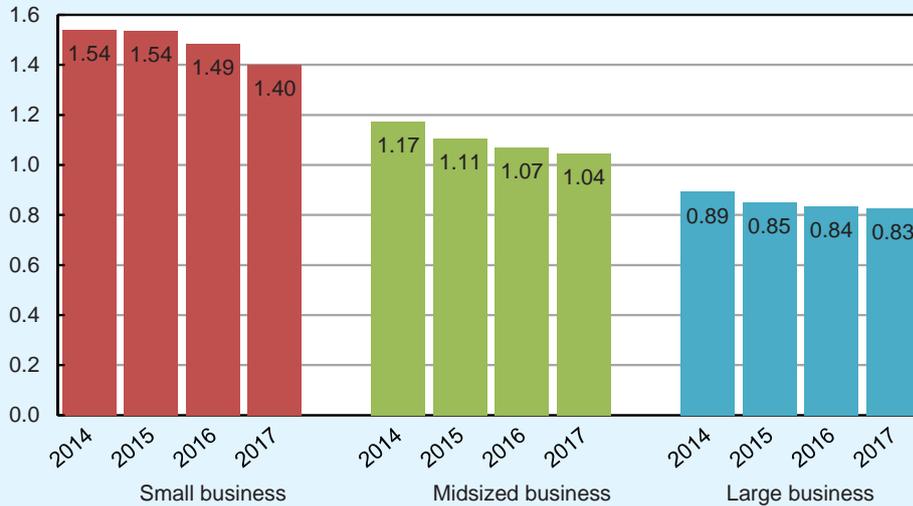
^c Credit card companies: Cal, Leumi Card, IsraCard and Poalim Express.

SOURCE: Based on reports to the Banking Supervision Department.

³⁷ For further details on the increased level of competition in the financial system, see Box 2.1 – Competition and the Changes in Competition in the Israeli banking system.

The small business segment led all activity segments in the decline in acquirer fees.

Figure 1.38
Merchant Fees by Size of Merchant^a, All Credit Card Companies^b, 2014–17
 (percent)



^a The fee is by size of the business, and is calculated based on all transactions acquired in Israel.

^b Credit card companies: Cal, Leumi Card, IsraCard and Poalim Express.

SOURCE: Based on reports to the Banking Supervision Department.

Technological developments are having a major effect on the payments industry and they constitute an additional and major challenge to the credit card companies. The entry of new players into the payments industry is increasing competition in the credit card companies’ traditional area of activity. Technological progress is also expanding the possibility of carrying out payments without a credit card,³⁸ which to a certain extent eliminates the need for credit card services (for example, there are now new mechanisms that enable payment by way of account-to-account transfers). As a result of these developments, the operating income of the credit card companies, which currently accounts for about 80 percent of their revenues (as opposed to about 19 percent from interest on credit), is expected to decline in coming years.

Beyond the changes in the business environment, the credit card companies are dealing with numerous regulatory changes. The Banking Supervision Department has announced its intention to reduce the interchange fee on deferred debit transactions by about 30 percent, from 0.7 percent of the amount of the transaction currently

The interchange fee is set to decline by about another 30 percent due to the Banking Supervision Department’s decision.

³⁸ In this context, it should be mentioned that the Bank of Israel is promoting the creation of a faster retail payments system.

to 0.5 percent in three stages in coming years.³⁹ The reduction in the interchange fee is expected to benefit businesses, but will reduce the operating income of the credit card companies, which rely on this fee. In addition, **two of the credit card companies (Isracard and Leumi Card) are continuing in their preparations for the implementation of the Increasing Competition Law and their separation from the banks.** To this end, the companies are trying to interest potential buyers from Israel and abroad and in parallel are preparing to publish a prospectus that will allow their separation by issuing shares on the stock market and also will enable them to obtain sources of financing. The companies are also preparing for the signing of operating agreements with the banks, based on the conditions derived from the Promotion of Competition Law, which prohibits the banks from activity that is liable to reduce competition. The banks are prohibited from activity that limits the access of the credit card companies to financial information or to prevent companies involved in the operation and issuing of payment cards from providing services to their customers. In addition, the banks are obligated to distribute payment cards of all issuers to which they are connected by a distribution agreement.

As part of the preparations prior to the implementation of the reform to increase competition, the Banking Supervision Department is working to provide support to the credit card companies, with the goal of enabling them to become independent companies. This is being accomplished by, among other things, the issuing of new directives⁴⁰ that create more favorable conditions for the separated companies with respect to financing costs and day-to-day liquidity needs. In this context, the Banking Supervision Department has required that the banks provide the liquidity needs for bank cards, in order to reduce the credit card companies' need for financing sources at a specific point in time. In addition and as part of the preparations for the separation, Banking Supervision Department has issued criteria to potential controlling shareholders of the companies and has stipulated that it be informed of agreements signed between the banks and the companies. In addition, the Banking Supervision Department has published a schedule for reducing the interchange fee, which will increase certainty for potential buyers regarding the companies' future revenues. **The Banking Supervision Department will continue to provide close support for the spinoff process, to deal with any problems that arise from it, and to promote competition in the banking system.**

³⁹ See Bank of Israel, Press Release (January 16, 2018): Announcement of the new interchange fee that will go into effect on January 1, 2019. Following are the stages for reducing the fee: January 1, 2019 – reduction from 0.7 percent to 0.6 percent; January 1, 2021 – reduction from 0.6 percent to 0.55 percent; and January 1, 2024 – reduction from 0.55 percent to 0.5 percent.

⁴⁰ See the Bank of Israel, press release (April 22, 2018), “The Banking Supervision Department publishes leniencies for the credit card companies that will be separated from the banks, as part of the reform to increase competition in banking”.

Box 1.1**The Growth in Credit to Small Businesses in Recent Years**

- Small businesses¹ constitute a major growth engine in the Israeli economy and their contribution to business output is significant. This contribution is made possible by, among other things, their financing, a major part of which is provided by the banking system.
- In recent years, a sharp increase has been seen in the volume of credit that the banking system extends to small businesses, a result of the strategic focus of the banks on this sector. Since 2011, the portfolio of credit to the smallest businesses grew by more than 50 percent, and in 2017, it grew by 6.6 percent. These data indicate the growth of supply and the availability of credit to that sector, are in line with the findings of several studies conducted on the issue, and indicate that today, in general, financing does not service as a significant barrier to the success of a small business.
- The average interest rate on credit to small and mid-size businesses is similar to the average in OECD countries. Likewise, the interest rate on credit to small businesses is higher than for any other size of business, as is also the case in other countries. This situation is explained by, among other things, the high credit risk of small businesses, which is due to the low survival rate in their early years, the relatively high operating costs of providing credit and banking services to small businesses and the characteristics of their activity.
- The Banking Supervision Department has also focused on small businesses and accordingly has in recent years taken a number of steps meant to improve their situation and reduce their cost of banking services. The Banking Supervision Department is also part of the effort to promote other endeavors that will reduce the asymmetry of information between the sides. At the same time, the banks are working to promote and support small businesses, including the adaptation of services to meet their needs, such as establishing centers to serve small businesses and developing products and services designed specifically for them.

a. The growth in bank credit to small businesses and the characteristics of this sector

Small businesses in Israel constitute a major growth engine for the economy, and their contribution to business output is significant. Their growth and their contribution to the economy and to business output are made possible by the financing provided to them, primarily by the banking system. Small businesses constitute an important component in the strategic focus of the banking system, which is manifested in the enhancement of activity in this sector in recent years. Since the beginning of 2013, a sharp rise has been seen in the quantity of credit provided by the banking system to small businesses, and in 2017, for the first time in many years, **more credit was provided to small businesses than to large ones**. The growth in credit to small businesses is due to the change introduced in 2010 by the Banking Supervision Department in the regulatory capital requirements, such that the allocation of capital required for credit to small businesses is lower than for other parts of the business sector. This change provided the banks with

¹ In this box, the definition of a small business includes, according to the directives of the Banking Supervision Department, a micro business (sales of up to NIS 10 million) and a small business (sales of NIS 10-50 million).

an economic incentive to provide credit to small businesses.² Other factors behind the growth in credit to this sector are the low interest rate environment, the shift away from large lenders in the business portfolio (which was partly due to large-scale credit failures and regulatory directives), the reduced exposure to leveraged credit and the existence of nonbank credit alternatives for large businesses. This has led to the enhanced banking activity with small businesses and at the same time a contraction in credit to large business borrowers, with the result that the share of credit to small businesses within the business credit portfolio is now 45 percent.

Alongside the factors that are encouraging the banks to focus on small businesses, it should be recalled that the activity of these businesses involves significant credit risk deriving from their low survival rates. Evidence of this is provided by the Small and Mid-Size Business Agency, which reports that only 66 percent of small businesses survive for longer than three years and this proportion continues to decline, such that only 35 percent survive after a decade. The risk in providing credit to these businesses is increased by the lack of accessible high-quality and reliable information on their financial, cash flow and managerial situation. In contrast to large businesses, whose financial statements are audited by an accountant, and often overseen by regulators, many small businesses are not obliged to issue audited financial statements and therefore the information available on their financial situation is limited and arrives with a lag.

b. Availability of credit for small businesses

The amount of credit provided to small businesses in the banking system is on an upward trend and its growth rate is among the highest in the business sector (Figure 1). In December 2017, total credit to small businesses from the five largest banks totaled NIS 186 billion. The supply of credit to small businesses, from both the banking system and non-bank sources has grown in recent years. The government is contributing to this phenomenon through The State Guarantee Fund for Small Businesses, in collaboration with the banking system. In view of the aforementioned, it appears that financing is not a major barrier for small businesses (Figure 2). Additional evidence of this can be found in a number of surveys carried out among small businesses. These indicate that obtaining financing is far less of a problem for small businesses than competition, marketing, availability of manpower and skilled managers, payment ethics and the bureaucratic burden.³ In addition, an international comparison⁴ indicates that total credit to small and mid-size businesses relative to GDP in Israel is similar to the average of OECD countries (Figure 3).

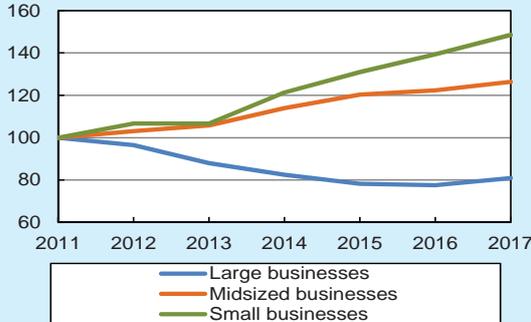
² According to the Basel guidelines, the capital allocation when providing retail credit and credit to small and micro businesses should be lower than when providing credit to large businesses.

³ According to the data of the Small and Mid-Size Businesses Agency and the survey among owners of independent businesses (Lahav – Bureau for the Self-Employed and Businesses in Israel), which was carried out by Maagar Mohot – Institute for Interdisciplinary Research and Consultation Ltd., July 2017.

⁴ See footnote to Figure 3.

In recent years, the growth rate of credit to small businesses is the highest in the business segment.

Figure 1
Estimated Development of Credit^{a,b} in the Various Activity Segments, the Five Banking Groups, 2011–17 (Index: December 31, 2011=100)



^a The development of credit between 2011 and 2015 is calculated on the basis of activity segment definitions by each of the banking groups. The rate of change in 2016 is calculated on the basis of the regulatory activity segment definition.
^b In the first quarter of 2013, the Discount Group reclassified credit to the various activity segments, and in the fourth quarter of 2014, the First International Group reclassified credit to the activity segments. During 2016, the Leumi Group reclassified customers from the small and micro business segment to the large and midsized business segments. As such, the data were standardized.
 SOURCE: Based on published financial statements and reports to the Banking Supervision Department.

Small business are having less difficulty in raising financing.

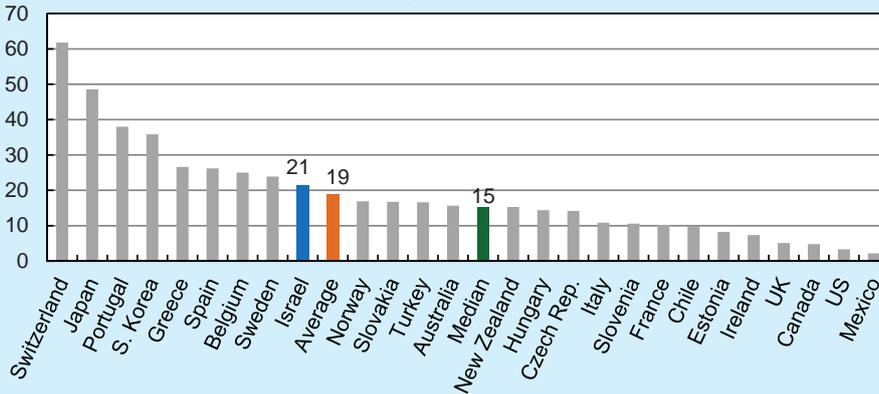
Figure 2
Financing Difficulties^a in the Small Business Segment^b, 2002–17



^a Seriousness: 0 - no constraint; 1 - slight; 2 - moderate; 3 - serious; 4 - very serious.
^b In the last quarter, 60 companies answered the question regarding financing difficulties in the Companies Survey.
 SOURCE: Based on the Companies Survey.

Credit to small and medium businesses as a share of GDP is similar to the average among advanced economies.

Figure 3
Credit to Small and Medium Businesses (SMEs)^a as a Share of GDP, Israel and OECD Countries, December 2015^b (percent)



^a Countries differ in the definition of small and medium business and in the credit components included in total credit. Furthermore, some countries include only bank credit, while others also include nonbank credit.
^b The data shown for Sweden are for 2014. For Israel, the data shown are for September 2017. Austria, Denmark, Netherlands, Finland and Germany are not included due to lack of data.
 SOURCE: OECD and based on Central Bureau of Statistics and reports to the Banking Supervision Department.

c. Emphases in the extending of credit to small businesses—according to a survey by the Banking Supervision Department

In view of the strategic focus of the banking system on small businesses and in view of the high growth rates of credit to this sector in recent years, in the second half of 2017 the Banking Supervision Department studied bank credit to small businesses. The review was based on, among other things, data and documents received from the banks and also the reports they submit on a periodic basis. The survey focused on the following points: assessment of structural risk; the bank's credit policy and risk appetite; and evaluation of the main risk management processes. In our estimation, the risk management processes in most of the banks are in line with generally accepted practices. Furthermore, it was found that the interest rate on credit to small businesses is higher than to the rest of the business sector (Figure 4) and the interest on credit to small and mid-size businesses is similar to the average interest rate on credit to such businesses in OECD countries (Figure 5).

The difference in average interest rates between the various segments of the business sector can be partially explained by the following factors:

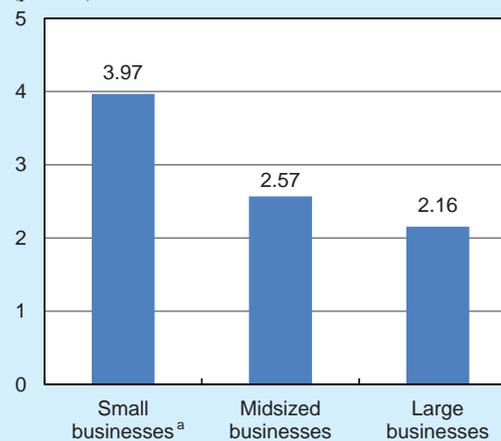
High credit risk: An analysis of the data shows that the quality of credit to small businesses is lower than for the rest of the business sector, which is indicative of relatively high credit risk. The quality of credit was measured according to a number of accepted indicators—primarily loan-loss provisions and net accounting write-offs as a share of the total credit portfolio. Credit losses among small businesses are larger than for the rest of the business sector and they have even risen markedly in 2017 (from 0.37 percent to 0.6 percent) while in the rest of the business sector income from debt collection was recorded during the last two years (Figure 6).

The recent increase in risk in the portfolio of credit to small businesses, which has been reflected in the aforementioned quality indicators, raises the probability of losses on this type of credit. The need to compensate for the implicit risk and these potential losses is one of the reasons for the higher average interest rate charged to small businesses. The survey carried out by the Banking Supervision Department showed that the banks are aware of the downward trend in the indicators of credit quality and are taking various steps to monitor the credit portfolio and ensure its quality. In view of the high rate of growth in credit to small businesses and with a view to the future, the banks must continue to strengthen the monitoring of small businesses.

High operating costs: Small businesses are intensive users of bank services, including frequent deposits of cash, frequent visits to the branches and the need for intensive monitoring as part of the management

The interest rate on credit to small businesses is higher than to the rest of the business sector.

Figure 4
The Average Interest Rate on Credit Issued to the Public in the Business Activity Segments, the Five Banking Groups, December 2017
(percent)

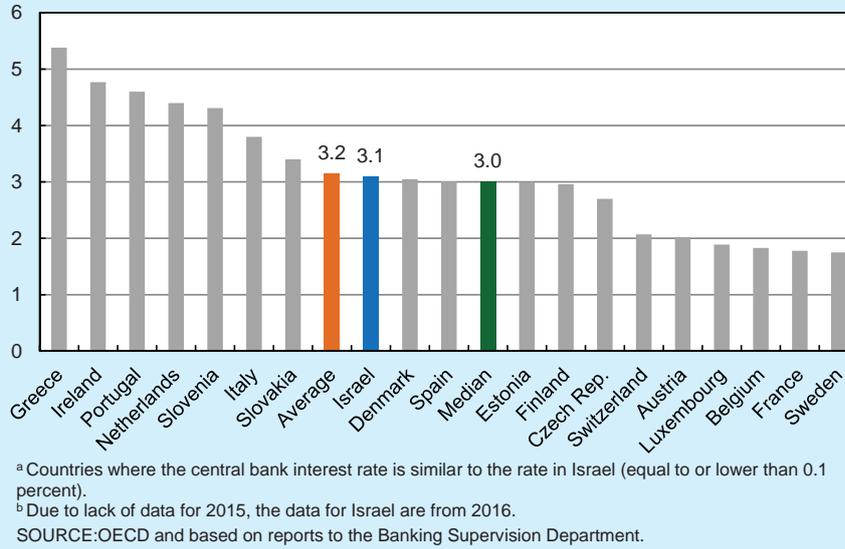


^a Includes micro businesses.

SOURCE: Based on published financial statements.

The interest rate on credit to small and medium businesses in Israel is similar to the average rate in the advanced economies.

Figure 5
Interest Rate on Credit to Small and Medium Businesses (SMEs), Israel and Countries with a Similar Interest Rate Environment^a, December 2015^b (percent)



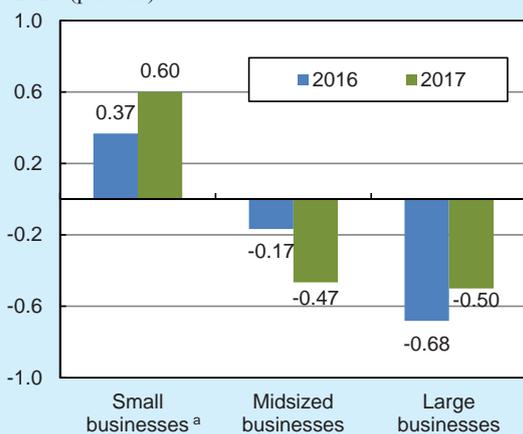
of credit risk. Support for the banking activity of these customers involves maintaining a large network of branches with a dispersed geographic distribution, which includes significant physical and human resource infrastructure. This results in higher operating costs for the bank than in the case of large and mid-size businesses, which constitute a small number of customers and whose activity is concentrated in a relatively small number of service points (Figure 7).

The difference in average cost between the sectors, as presented in Figure 7, partly explains the difference in interest rates between the segments.

Characteristics of banking activity: Another explanation of the difference in the average interest rate between the segments is related to the characteristics of the banking activity of small businesses. Small businesses tend to manage their banking activity at a single bank and at the most accessible branch. Therefore, for convenience they prefer to obtain credit at the bank where they carry out their day-to-day activity, even if the cost would have been lower at a different but more distant bank. Moreover, it appears that obtaining credit at a bank where the customer does not manage his day-to-day activity will not necessarily result in a more favorable price, since the lack of information about the customer’s financial resilience and payment reliability will lead the bank to price the credit provided to him according to a higher risk level as a result of the lack of information.

Credit risk in the small business segment is higher than in the rest of the business sector, and is increasing.

Figure 6
Loan Loss Provisions as a Share of Outstanding Credit, End of Period, in the Business Activity Segments, the Five Banking Groups, 2017 and 2016 (percent)

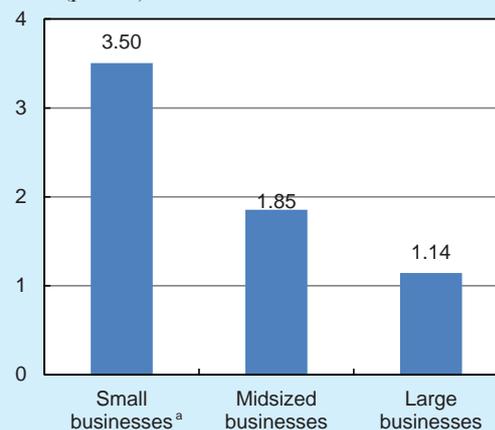


^aIncludes micro businesses.

SOURCE: Based on published financial statements.

Supporting the business activity of the small business sector involves high operating costs.

Figure 7
Average Cost (Operating Cost Relative to Average Balance of Assets and Liabilities) in the Business Segments, the Five Banking Groups, 2017 (percent)



^aIncludes micro businesses.

SOURCE: Based on published financial statements.

d. Steps taken by the Banking Supervision Department to facilitate the activity of small businesses

The Banking Supervision Department has in recent years taken a number of steps intended to facilitate the activity of small businesses. These and other steps are expected to increase their bargaining power in day-to-day activity at the banks and when requesting credit. In this way, they can reduce the costs of their banking services. These steps include the following:

- With regard to settlement and payments, a schedule was established for reducing the interchange fee from 0.7 percent to 0.5 percent by 2023. This decrease is expected to further reduce the fee paid by a merchant for transactions carried out by means of a credit card. As a result of the exemptions promoted by the Banking Supervision Department, it is now possible to easily and quickly switch acquirers, and it can even be done online. Each year, 10 percent of businesses switch acquirer.
- The creation of a lower price list and fee track designated for small businesses is another step promoted by the Banking Supervision Department in recent years. Since an insufficient number of small businesses moved to the reduced-fee track, Banking Supervision issued a directive in 2017 that requires the banks to identify small businesses that could lower the cost of managing their account by joining the track and inform them of the possibility.
- The Banking Supervision Department is encouraging the banks to develop and assimilate digital means that are expected to make it easier for customers to manage their finances. The Banking

Supervision Department is of the opinion that given additional conditions, greater use of digital channels can be expected to reduce the price of service to the banks' customers. It can be seen that the banks have indeed started to reinforce the digital and direct channels that they offer to small businesses in order to facilitate the management of their accounts. These include a designated site for small businesses, the ability to submit instructions easily and quickly, etc. The data possessed by the Banking Supervision Department indicate that the assimilation of digital channels for use by small businesses is gaining momentum, although it is still on a smaller scale than in the case of households.

- The Banking Supervision Department is working to reduce information gaps between small businesses and the banks by, among other things, creating a central database for sharing credit information, which will include part of the credit data on small businesses, and also by promoting various initiatives for the introduction of interfaces and a shift to “open banking” based on API.
- A banking identity card that is modified to the characteristics of small business activity.

As part of the strategic focus of the banking system on small businesses, the banks in recent years have worked to promote and support their activity. They have invested in systems that serve small businesses by developing a designated credit model, which includes a specific risk rating for each small business on the basis of various parameters, including industry, the business' characteristics, such as sales and growth and indicators of its account activity at the bank, and creation of a training program for bank workers to deal more efficiently and professionally with small businesses. Most of the banks are also providing instruction and workshops to small businesses, which are intended to provide them with tools for correct financial management. Similarly, the banks are putting emphasis on the development of products and services, including digital ones, which are adapted to small businesses.

Box 1.2**Households' Participation in the Loans Market and Their Financial Vulnerability: An Analysis Based on the Households Survey for 2016**

- The Households Survey conducted by the Central Bureau of Statistics makes it possible to analyze the characteristics of households that take loans, as alongside information on their debts, the survey includes, among other things, information on their income, size, and schooling. These data allow the examination of not just the population's average but also its various segments, as well as a more-precise assessment of household indebtedness and the potential risks both to households themselves and to the financial system. Using survey data as a basis for analyzing household indebtedness has become the accepted methodology and has come into widespread use worldwide.
- The survey indicates that half of households (47 percent) have loans: 31 percent have consumer loans¹ and 28 percent have housing loans. Of the 28 percent, 40 percent have consumer loans as well.
- The survey indicates that the share of low-income households (deciles 1–4) with a loan is higher than in the eurozone.
- Among households that took out loans, approximately 15 percent (about 7 percent of the total population) are considered financially vulnerable, meaning they have a high probability of encountering difficulty in repaying the loan.
- The analysis found that if these households reach failure, it will impact on the banking system's potential credit losses to only a limited extent. However, their situation is liable to pose a risk to the households themselves, and therefore it is important to enhance financial awareness among the public with the goal of ensuring that consumers understand their financial situation and utilize credit only in accordance with their ability.
- It was found that borrowers who took a loan from a nonbank entity (insurance company, credit card company, financial leasing, private entity, union, free loan society) are characterized by markedly higher credit risk than borrowers who only took a loan from a bank, and it is likely that they turned to these sources because the banking system declined to extend credit to them.
- Nonbank sources of credit increase the supply of credit to the public, and enhance the competition for customers. Currently, however, lenders (including banks) lack information on the household's total debt, which is liable to lead to high indebtedness among some of them and to an underestimation of the credit risk. To deal with this difficulty, and to enhance the competition in the retail credit market, the Bank of Israel is working to establish a central credit registry, and the Banking Supervision Department is working together with the Capital Market Authority to formulate a uniform regulatory standard for household credit.

¹ This does not include overdrafts at the bank (a "minus" balance in the account) due to lack of information. In 2016, overdrafts were about 10 percent of bank consumer credit. An analysis of the survey indicates that 27 percent of households had a "minus" balance the entire previous year. It was also found that 6 percent of households had a "minus" balance the entire previous year and did not take any loan at all (housing or consumer).

a. Introduction

Credit to households has expanded rapidly in the past decade—by approximately 9 percent per year, on average—against the background of the low interest rate environment, the increase in home prices, and the growth in private consumption.

This expansion presents—in Israel and abroad—challenges related to credit risk, overindebtedness, and the financial stability of households as well as of the overall economy, particularly if scenarios materialize in which the interest rate increases, unemployment rises, and home prices decline. As such, the Banking Supervision Department follows the developments in household credit.

Over the years, risk assessment has been based on aggregate data. **Aggregate data provide information on the average level of risk, and they indicate that average debt and indebtedness of households in Israel are similar to averages worldwide.** However, in recent years, and particularly after the financial crisis of 2008, it became very clear that the aggregate data do not allow an appropriate assessment of households' indebtedness and financial vulnerability—the data do not provide information on the distribution of debt among population groups nor on the connection between types of debt and household characteristics, and therefore allow only partial assessments.

As such, in recent years many countries have expanded the surveys conducted among households, and they currently include considerable information on respondents' debt (a main example is the HFCS²—the eurozone's income and expenditures survey). The assessment of indebtedness and financial vulnerability of households using surveys that provide microdata has therefore become very accepted methodology and has gone into widespread use worldwide.

The “Households in Israel—Long Term” survey conducted by the Central Bureau of Statistics makes it possible to implement this methodology in Israel. The survey provides detailed data on the debt of households from the various population groups, and in particular their financial and demographic characteristics. Using these data, it is possible to assess more precisely the indebtedness of various population groups and the potential risks faced by both the households themselves as well as the financial system in Israel, as well as to examine the picture conveyed in a comparison with Europe.

b. The database

“Households in Israel—Long Term” is a new survey that the Central Bureau of Statistics has been conducting since 2012, in collaboration with the Bank of Israel, the National Insurance Institute, the Ministry of Finance and the Ministry of Justice. The survey is intended to examine and to document processes undergone by households in areas such as household composition, education, employment, income and health. In addition, it investigates the financial conduct of households using financial variables such as housing loans or consumer loans, balance to pay off, source of the loans, gross income, the level of savings, and overdraft in the bank account. This area is researched on a cyclical basis every few years, and was studied first in 2013 and a second time in 2016.³

² The HFCS (Household Finance and Consumption Survey) collects data on consumption and financial characteristics of households in the eurozone. In addition, the survey provides data at the country level for eurozone countries as well as Hungary and Poland.

³ It should be noted that the survey is a representative sample of the population in Israel, not necessarily the population of borrowers. The analysis was based as well on data that are not included in the survey and were obtained through an estimation that we carried out, including the interest rate, term to redemption and the monthly payment amount.

The analysis below is based on the survey conducted in 2016. The survey follows a fixed sample of 4,180 households representing the total Israeli population. After removing outlier observations, 3,859 households remained in the analysis.⁴ Of those, we focused on the 1,756 households that had some type of debt (housing or consumer).

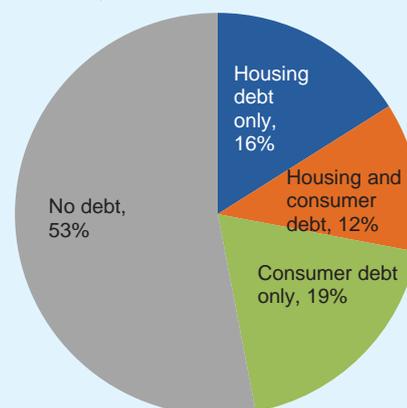
c. The characteristics of indebted households

An analysis of the survey indicates that 47 percent of households have some type of loan.⁵ Thirty-one percent have a consumer loan, and 28 percent have a housing loan. Of the 28 percent, 40 percent also have a consumer loan (Figure 1).⁶

When focusing on households with a loan, and examining them by income level, it is found that their participation rate—the share of households that have a loan—is low in the bottom income quintiles⁷, a population characterized by high credit risk. This is particularly valid regarding housing loans: the share of households that have a housing loan rises as income level increases—while they make up 15 percent of households in the bottom two quintiles, in the highest quintile they make up 48 percent. This derives from, among other things, most households in the bottom quintile not owning a home and thus not having a housing loan. With regard to consumer loans, income does not have a uniform effect on taking one. The share of such borrowers is low in the bottom income quintile as those households have a difficult time obtaining credit due to high credit risk, similar to the situation in other countries (IMF, 2017). In the other quintiles, their share increases with income, though at the highest quintile their share is low, apparently because those households generally do not need consumer loans (Figure 2).

About half of households have outstanding loans, and a significant portion have housing loans as well as consumer loans.

Figure 1
Distribution of Households by Debt Status and Type of Debt, 2016



SOURCE: Based on Central Bureau of Statistics.

⁴ In total, 324 outlier observations were excluded from the sample.

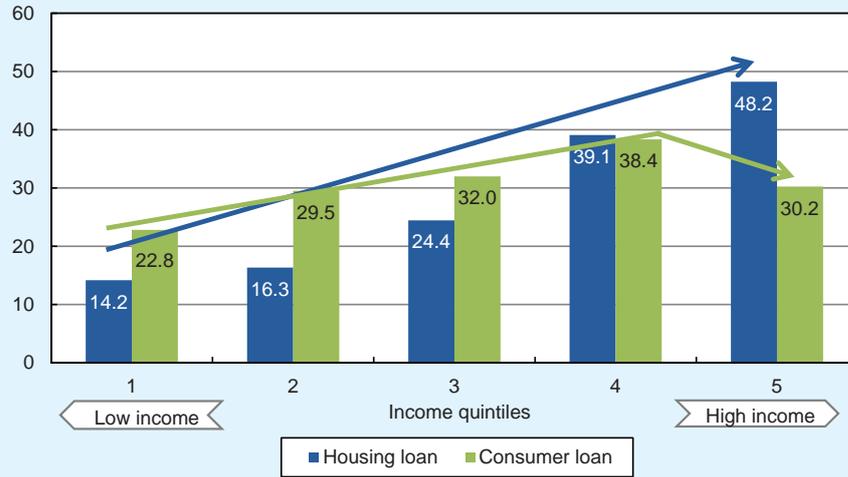
⁵ The analysis included loans from banks, credit card companies, insurance companies, or a financial entity that manages financial savings, workers committee, financial leasing, private entity, unions, and free-loan societies. Overdrafts at the bank (a “minus” balance in the account) were not included due to lack of information.

⁶ The survey data do not include information on the day that the loans were taken out. Therefore it cannot be known if the consumer loan was taken out in parallel with the housing loan in order to make the down payment.

⁷ The division into income quintiles was based on total gross monthly income (including allowances) of the household. We used a methodology similar to the one used by the HFCS so that we would be able to compare Israel and Europe.

Increased income makes it possible to increase both consumer debt and housing debt. Up to the fourth quintile, households are increasing both types of debt, but in the fifth quintile, they are increasing only their housing debt, apparently, because they require less consumer debt.

Figure 2
Share of Households that Have Consumer and Housing Loans, by Income Quintile, 2016 (percent)



SOURCE: Based on Central Bureau of Statistics.

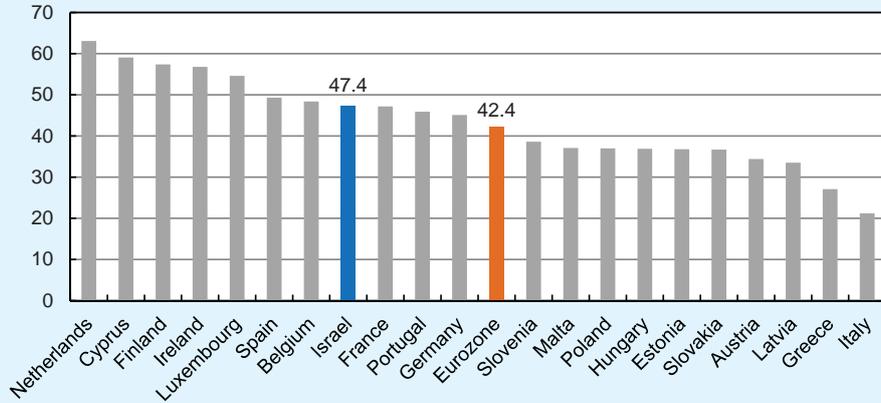
When comparing Israel and the eurozone, it is found that the share of households with a loan in Israel is slightly higher for all types of loans (Figures 3–5).⁸ **The share of people with loans in the lower income deciles is higher than the share in Europe**, while in the higher income deciles the share is similar (Figure 6). This could be seen as a positive finding, as it indicates that the weaker populations are not kept out of credit market even though they have a high credit risk. However, in contrast, it is likely that this debt burden is not appropriate for the characteristics of low-income households and is not consistent with being in their benefit or with their repayment capacity. **The share of debt held by the bottom four income deciles in Israel—12 percent—is higher than the corresponding share in Europe—5 percent (Figure 7). This situation is liable to expose the financial system to risk in respect of these borrowers, although as they only hold a small part of the total debt they have a limited impact on potential credit losses of the banking system. In contrast, the high debt burden is liable to be a risk the households themselves and therefore it is important to provide financial education to the public so as to ensure that the consumers understand their financial situation and utilize credit in accordance with their ability.**

The share of households with a loan increases with age, and reaches a peak (64 percent) at ages 45-54. Afterwards it declines, as does the outstanding debt (balance to repay), as apparently many of those households have already repaid a considerable portion, or even all, of the original loan. In addition, it was found that the share of people holding loans (of all types) among households with children—64 percent—is markedly higher than the share among households without children—34 percent.

⁸ In contrast to Israel, in most countries in Europe consumer credit includes overdrafts as well.

The share of households with loans is slightly higher than the eurozone average.

Figure 3
The Share of Households with Loans, Israel and the Eurozone^a, 2013–16 (percent)

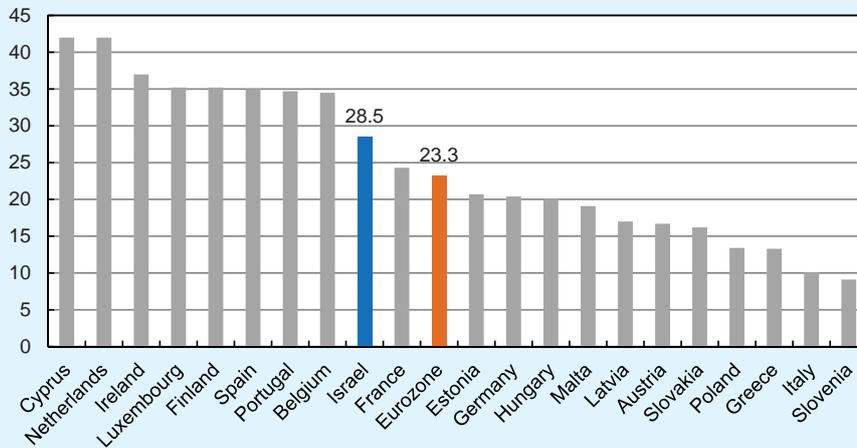


^a Eurozone countries excluding Lithuania and plus Poland and Hungary. The data on European countries are for 2013–15. The data for Israel are for 2016.

SOURCE: Eurozone–Eurosystem Household Finance and Consumption Survey, second wave (European Central Bank); Israel– Based on Central Bureau of Statistics.

The share of households with housing loans is slightly higher than the eurozone average.

Figure 4
The Share of Households with Housing Loans, Israel and the Eurozone^a, 2013–16 (percent)

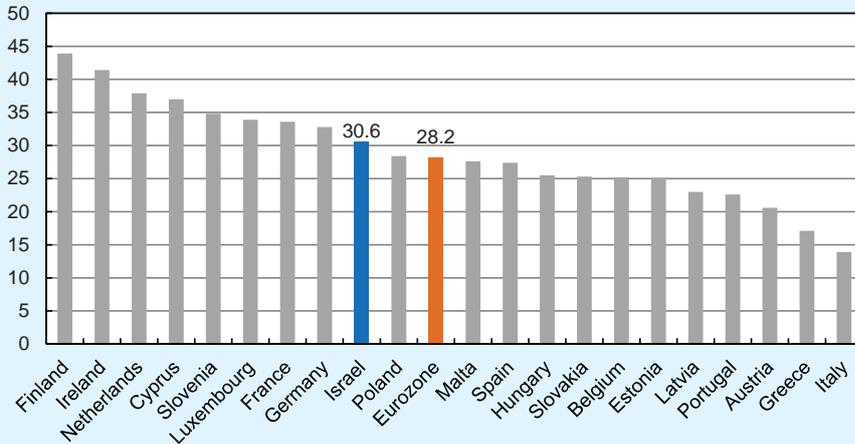


^a Eurozone countries excluding Lithuania and plus Poland and Hungary. The data on European countries are for 2013–15. The data for Israel are for 2016.

SOURCE: Eurozone–Eurosystem Household Finance and Consumption Survey, second wave (European Central Bank); Israel–based on Central Bureau of Statistics.

The share of households with consumer loans is slightly higher than the eurozone average.

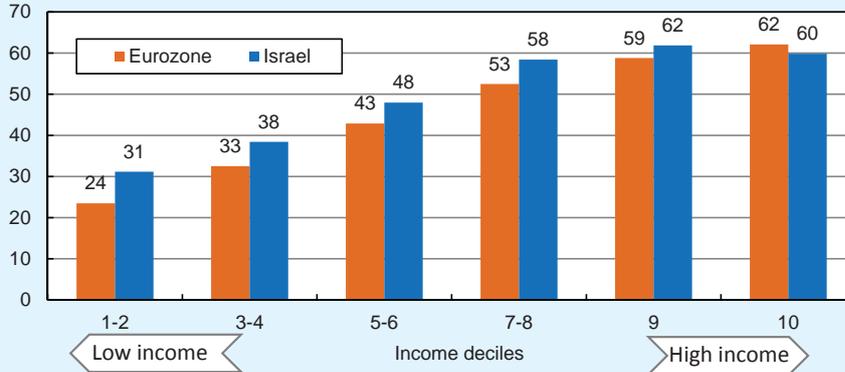
Figure 5
The Share of Households with Consumer Loans, Israel and the Eurozone^a, 2013–16 (percent)



^a Eurozone countries excluding Lithuania and plus Poland and Hungary. The data on European countries are for 2013–15. The data for Israel are for 2016.
 SOURCE: Eurozone–Eurosysteem Household Finance and Consumption Survey, second wave (European Central Bank); Israel–based on Central Bureau of Statistics.

In the lower deciles, the share of households with loans is higher than in the eurozone, while in the highest decile, it is lower than in the eurozone.

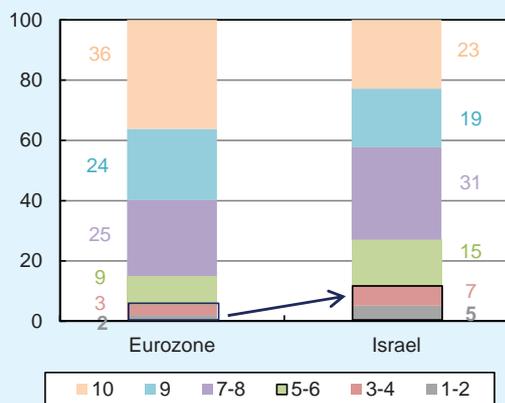
Figure 6
The Share of Households with Loans by Income Deciles, Israel and the Eurozone^a, 2013–16 (percent)



^a Eurozone countries excluding Lithuania and plus Poland and Hungary. The data on European countries are for 2013–15. The data for Israel are for 2016.
 SOURCE: Eurozone–Eurosysteem Household Finance and Consumption Survey, second wave (European Central Bank); Israel–based on Central Bureau of Statistics.

The share of debt held by the lower deciles is higher than in the eurozone.

Figure 7
Estimated Distribution of Debt Among the Income Deciles^a, Israel and the Eurozone^b
(percent)



^a Data for the eurozone are an estimate based on the share of debtholders and on median debt, by income deciles.

^b Eurozone countries excluding Lithuania and plus Poland and Hungary. The data on European countries are for 2013–15. The data for Israel are for 2016.

SOURCE: Eurozone—Eurosystème Household Finance and Consumption Survey, second wave (European Central Bank); Israel—based on Central Bureau of Statistics.

In the ultra-Orthodox⁹ sector, the share of households with loans—66 percent—is higher than their share—approximately half—in the Jewish, non-ultra-Orthodox population. This gap is seen both in consumer loans and in housing loans. More than 40 percent of ultra-Orthodox households that took out consumer loans relied on nonprofit free-loan societies, either exclusively or in addition to a bank.¹⁰

There are marked differences in the share of people with loans between the Jewish and the Arab sectors. **Mortgage borrowers make up 8 percent of the Arab sector and 32 percent of the Jewish sector. However, those taking out consumer loans make up 40 percent of the Arab sector and 29 percent of the Jewish sector.** The high share of consumer loan borrowers in the Arab sector derives from their difficulty in taking out a mortgage for the asset they own and thus receive a housing loan.¹¹

For 79 percent of people with loans, there are only bank loans, while 13 percent of them have bank loans alongside loans from another source, and 8 percent relied solely on nonbank¹² financing sources (Figure 8).

The nonbank sources of financing increase the supply of credit to households, are likely to support enhanced competition, and in certain cases even make it possible to remove credit limitations. In contrast, these entities (as well as banks) lack information on a household's overall debt, which is liable to lead to extending of credit characterized by a high risk level due to a high debt burden. In order to deal with this difficulty, and to enhance the competition in the retail credit market, the Credit Data law was legislated in 2016. Within the framework of that law, it was established that the Bank of Israel will set up and operate a credit data registry, which will concentrate information on the history of the credit extended to households and small businesses by credit providers in the economy (that are obligated by the law to report to the registry). The registry is expected to be established by the beginning of 2019. In addition,

⁹ In the survey, Jewish respondents are requested to indicate how they view themselves: (1) ultra-Orthodox (2) Religious (3) Traditional and religious (4) Traditional though not religious (5) Not religious, secular.

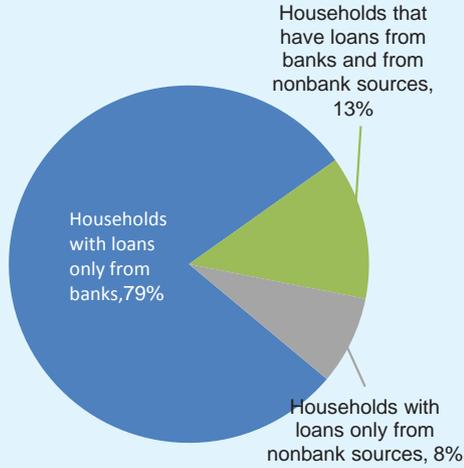
¹⁰ Among ultra-Orthodox households that took out a consumer loan, approximately two-thirds borrowed it from a bank, compared with 93 percent among Jewish non-ultra-Orthodox households.

¹¹ See the Bank of Israel press release dated November 21, 2017, "Analysis of the mortgage market for borrowers from the Arab sector, following structural failures in the housing area in this sector".

¹² An insurance company or financial entity that manages financial savings, workers committee, credit card company, financial leasing, or other private source, unions, and free-loan societies.

Most households take loans from banks.

Figure 8
Distribution of Households by Source of Loans, 2016



SOURCE: Based on Central Bureau of Statistics.

the Banking Supervision Department is collaborating with the Capital Market Authority to formulate a uniform regulatory standard regarding credit to households, with the goal of ensuring that the loans offered by the lending organizations are appropriate for the borrower’s overall level of debt and ability to repay all the loans the customer took out.

d. The financial vulnerability of different groups of indebted households

In order to identify the households characterized by financial vulnerability, we used three generally accepted indicators for identifying household overindebtedness: (1) Debt service to income of greater than 40 percent—the ratio of total monthly debt payments to household gross monthly income¹³; (2) Debt to income ratio of greater than 350 percent—the ratio of total liabilities to total gross household income;¹⁴ and (3) Financial margin¹⁵—an index that combines a household’s solvency and its liquidity,

examining what flows are available to the household after the debt payment and living expenses, and assumes that a negative flow means the household will have difficulty repaying the loan and will apparently reach default.¹⁶

The analysis indicates that the share of financially vulnerable households in Israel is similar to the share in the eurozone. According to Debt service to income ratio 15 percent and 16 percent, respectively (Ampudia, et al., 2016). According to Debt to income ratio is 11 percent and 16 percent, respectively

¹³ The index reflects the household’s ability to pay the debt on time, and it focuses on the short term.

¹⁴ The index measures how many years the household needs in order to repay the entire debt.

¹⁵ The financial margin for a household is measured as:

$$FM_i = I_i - T_i - DP_i - BLC_i + LIQ_i/M$$

Where

I_i = gross household income

T_i = taxes

DP_i = the debt payments

BLC_i = the equivalized basic cost of living

LIQ_i = total liquid assets

M = the number of months that the liquid assets can service the debt; in this research we assumed that it is 6.

¹⁶ This index serves as an estimate of household default in many studies around the world, particularly at central banks, that deal with estimating the financial vulnerability of households (Leika and Marchettini, 2017, Bettocchi, et al. 2016, and Ampudia, et al., 2016).

(Ampudia, et al., 2016)¹⁷. According to financial margin the share is 20 percent, with no comparable data for the eurozone.

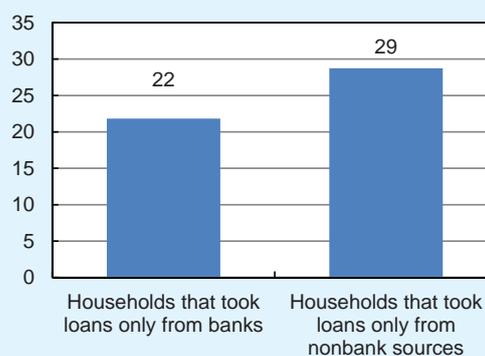
Low-income households are characterized by high vulnerability, a finding that is similar to that for Europe. The share of vulnerable households in the lowest income quintile is 32 percent according to the debt service to income ratio (the share in Europe is 40 percent) and 22 percent according to the debt to income ratio (the share in Europe 30 percent) (ECB, 2016). Likewise, it was found that households that took out loans from nonbank sources (insurance company, a financial entity managing financial savings, credit card company, financial leasing, private entity, unions and free-loan societies) are more vulnerable than households that only took out a bank loan. According to the financial margin for a household, the vulnerable households make up 29 percent of the households that took out a loan from a nonbank source and 22 percent of those who only took out a bank loan (Figure 9).

Approximately one-third of the total debt¹⁸ belongs to financially vulnerable households, and their share of consumer debt is higher than their share of housing debt. This finding, together with consumer debt not being backed by collateral, means that if an adverse scenario develops, the banking system is liable to absorb relatively high losses in respect to consumer debt. However, those losses are not a risk to the system's resilience, as indicated by the results of stress tests conducted for the banking system in 2016.¹⁹

Ultra-Orthodox Jews as well as Arabs are characterized by high financial vulnerability. Likewise, it was found that children in a household increase the probability of vulnerability. In contrast, higher education reduces the probability, and this can be attributed to such households being characterized both by higher earning capacity as well as more proper management of financial activity.

Borrowers with credit from nonbank sources are characterized by a higher credit risk than those who take out bank credit.

Figure 9
Percentage of Households that are Financially Vulnerable (according to the Financial Margin Indicator), by Source of Loan^a, 2016



^a Including credit card companies, insurance companies, and any financial entity that manages financial savings, finance leasing, private entity, unions and free loan associations. The calculation does not include loans taken from workers committees.

SOURCE: Based on Central Bureau of Statistics.

¹⁷ The threshold for vulnerability in this case is 400 percent (Ampudia, et al., 2016)—that is, higher than the threshold set for Israel (350 percent)—and therefore it would have been expected that it would yield lower vulnerability. However, the opposite picture is conveyed, so that it appears that the situation in Israel is better than in Europe.

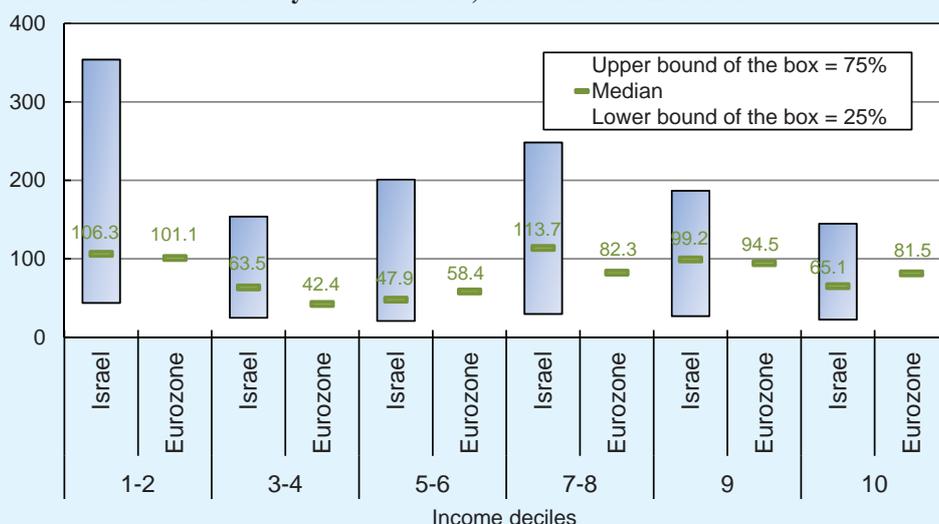
¹⁸ Includes loans from banks, credit card companies, insurance companies, or a financial entity that manages financial savings, workers committee, financial leasing, private entity, unions, and free-loan societies. Overdrafts at the bank (a “minus” balance in the account) were not included due to lack of information.

¹⁹ See Box 1.2 in the Banking System Annual Survey for 2016—Macroeconomic stress tests for the banking system, based on a uniform scenario, 2016–2017.

A marked share of households hold consumer credit alongside housing credit. Among vulnerable households, this overlap is more notable—approximately a third of vulnerable households took out a consumer loan alongside a housing loan. This means that if a household has the two types of credit and defaults, it causes losses both to housing credit and to consumer credit.

Debt as a share of income in Israel is generally similar to the share in the eurozone.

Figure 10
Debt to Income Ratio^a by Income Decile, Israel and the Eurozone^b



^a The debt-to-income ratio is equal to the ratio of a household's total liabilities to total income.

^b Eurozone countries excluding Lithuania and plus Poland and Hungary. The data on European countries are for 2013–15. The data for Israel are for 2016.

SOURCE: Eurozone—Eurosystem Household Finance and Consumption Survey, second wave (European Central Bank); Israel—based on Central Bureau of Statistics.

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Box 1.3**Estimating the Cost of Equity in the Banking Sector: A Snapshot of Israel and Abroad**

- The professional literature regards the cost of equity as investors' expected return on their investment in a company or a bank. This expected return reflects investors' assessment of the bank's performance and ability to handle economic and regulatory challenges.
- Regulators world wide follow the gap between banks' return on equity (ROE) and cost of equity (COE), regarding it as an indicator for whether a bank has a business model capable of achieving sustainable profitability, i.e., as an indicator of its long-term stability.
- As the COE-ROE spread reflects the gap between a bank's actual performance and investors' expectations, the lower the correlation between them - the greater the risk investors attribute to the Bank (risk perception). An increase in the risk perception is liable to lead to an increase in the cost of raising equity (and perhaps even in the cost of raising debt), and later on could even impact the cost and the amount of credit available economy-wide.
- This box features an empirical estimate of the cost of equity for Israel's five major banking groups. The estimate was carried out using the CAPM¹ model (Table 1) due to its advantages over other models and since it is the model most commonly used by central banks around the world.
- Over the past two years, the average cost of equity among Israel's five major banking groups has been approximately 7 percent, lower than the cost in other countries (Figure 3). The cost is low primarily because the volatility of Israeli banks' shares is low compared to the market portfolio, reflecting their low risk; in addition, risk has been declining in recent years.
- Israeli banks' activities are conservative relative to those of banks around the world and are regulated tightly. As a result, investors attribute relatively low risk to the banks (the risk perception is relatively low). The steps taken by the Banking Supervision Department in recent years have strengthened the market's perception that banks in Israel are currently less risky than in the past. At the end of 2016, the gap between the return on equity and cost of equity was about 1 percent, similar to the state in major and advanced economies around the world (Figure 4). The gap increased to 2 percent in 2017, indicating that investors in Israeli banks benefit from a reasonable level of profitability.

Central banks and regulators across the world are interested in estimating the cost of equity (COE) in order to estimate the industry's profitability and the banking system's stability and in order to conduct various stress tests.

¹ Capital Asset Pricing Model.

When investors purchase a corporation's stock, they buy future cash flows under uncertain conditions. The COE reflects the return they expect to receive from that corporation so as to justify their investment and to be compensated for the uncertainty. Banks' **cost of equity** reflects **investors' expected return** on their investment in the banking sector. It therefore provides additional information about investors' perception of the bank's risk, a perception which is not always on par with other measures of profitability and stability. The return on equity (ROE) reflects the return investors effectively receive for their investment.

The gap between the ROE and COE can serve several purposes, *inter alia* – assessing a bank's performance and stability. As to performance, the gap offers an alternative approach to the assessment, since it is based on information available in financial markets. The gap estimates the banks' performance and their robustness as assessed by investors: It is positive when banks provide their investors with excess returns—which makes investing in the industry attractive, and negative when the banks generate a return lower than investors had expected, which may lead to greater perceived risk by investors; a negative gap over a long term may lead investors to demand an even higher premium for the risk inherent in their investment, and thus lead to an increase in the bank's financing costs (including for raising debt), rendering it harder to raise funds. Regarding stability, many regulators around the world use COE to estimate the decline in ROE that will erode the banks' buffer, and in extreme situations, will place their stability at risk.²

There is a correlation between the ROE-COE gap and the ratio of market value to book value (MV/BV), which serves as an accepted indicator for how the market estimates a bank's future performance. The MV/BV ratio reflects the premium the market is willing to pay for the book value of the bank's shares, and when lower than 1, it may mean that investors doubt the bank's ability to generate profits due to the risks to which it is exposed. According to the professional literature, three major factors affect the MV/BV ratio: The ROE which affects it positively, an increase in a corporation's risk premium (which is reflected in the COE) negatively impacts it, and the level of regulation and supervision in the industry positively affects it (Saunders and Wilson, 1996; Damodaran 2002). Therefore, the ROE-COE gap should provide information regarding the level of the MV/BV curve: When banks generate lower than expected returns for investors, the investment becomes less attractive and is therefore expected to lead to a decrease in the stock price (MV) and thus in the MV/BV ratio.

² Stress testing the UK banking system, November 2017.

Results of estimating the cost of equity in the banking industry in 2017³:

Between 2010 and 2012 there was an increase in the COE for Israeli banks, however, it has decreased markedly in recent years: The COE declined from 14–16 percent in 2012 to 6–7 percent at the end of 2017 (Table 1, Figure 1). The decrease stems from the risk-free interest rate's decline in Israel in recent years—from 5 percent to 1.6 percent, as well as from the decrease in the volatility of the banks' stocks relative to that of the market portfolio (β) and the market's risk premium (Figure 2). The decrease in relative volatility arises from the decline in the Israeli banks' risk, *inter alia* since the Banking Supervision Department guided the banks to increase their equity ratios and liquidity ratios. The banking system's liquidity coverage ratio increased significantly between 2015 and 2017 (Figure 1.26) and the Common Equity Tier 1 Capital ratio increased by a similar rate—about 33 percent—between 2011 and 2017 (Figure 1.12).

In recent years, the banks' cost of equity has declined

	2015	2016	2017
Average cost of equity	8.8	7.4	6.5
Leumi	9.9	8.0	6.9
Hapoalim	9.3	7.9	6.9
Mizrachi-Tefahot	7.7	6.8	6.2
Discount	9.6	7.7	6.6
First International	7.6	6.7	6.1

SOURCE: Based on published financial reports, the Tel Aviv Stock Exchange, Damodaran tables, and Moody's ratings.

The average COE for Israel's five largest banking groups was 7.2 percent as at the end of 2016⁴, similar to the COE in other AEs⁵ and lower than in the eurozone and North America.⁶ The trend in Israel was similar to the one in the eurozone through the beginning of 2016, but during that year, the COE for European banks began to rise, while in Israel the decline that had been seen in recent years persisted (Figure 3). Thus, the COE in Israel is low compared to other countries, reflecting the stability and robustness of the Israeli economy in general, and of Israeli banks in particular. This situation resulted

³ We chose to estimate the cost of equity according to the CAPM model: $CAPM = R_f + \beta * (R_m - R_f)$, as it takes into account the risk factors of the entire economy and therefore provides more reliable predictions. R_f - Israeli risk-free interest rate, calculated based on nominal 10-year government bonds; β is the correlation between the stock's volatility and that of the market portfolio, calculated based on the performance of the bank's stocks and the Tel Aviv 125 index; $R_m - R_f$ is the State of Israel's sovereign risk, calculated based on the Damodaran methodology.

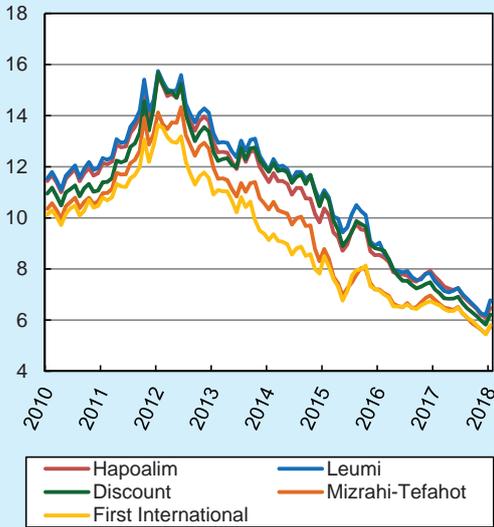
⁴ International data are updated to the end of 2016.

⁵ Advanced Economies. A full list of countries appears in Figure 3.

⁶ Based on BIS data, 2017 Annual Report. A full list of countries appears in Figure 3.

In recent years, the cost of equity at the Israeli banks has declined.

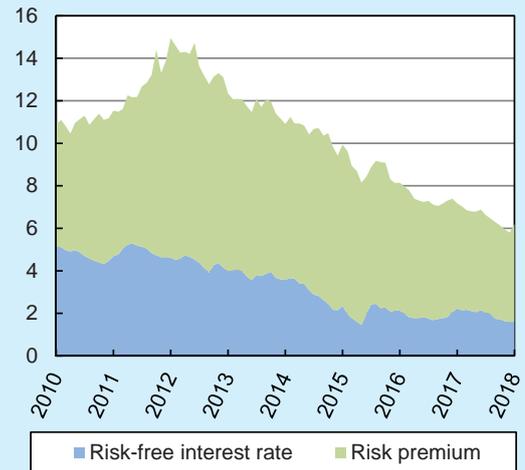
Figure 1
The Cost of Equity (According to the CAPM), the Five Banking Groups, 2010–18



SOURCE: Based on published financial statements, the Tel Aviv Stock Exchange, Damodaran tables, and Moody's ratings.

The cost of equity declined in the estimation years due to the decline in the risk-free interest rate and in the banks' risk premiums.

Figure 2
The Components of the Cost of Equity According to the CAPM^a, the Five Banking Groups, 2010–18



^a The banks' risk premium is estimated as β multiplied by the economy's risk level.

SOURCE: Based on the Tel Aviv Stock Exchange, Damodaran tables, and Moody's ratings.

from an ongoing, consistent decline in Israel's risk premium, a significant decrease in the economy's risk-free rate, and the volatility of the banks' stocks being lower than the volatility of market portfolio.

A major factor responsible for the gap between COE in Israel and abroad is the low volatility of the Israeli banks' stocks relative to the COE around the world, which indicates the low level of risk in investing in them. To illustrate this difference, in 2016, the average volatility of the Israeli's banks' stocks relative to the market portfolio was 0.8, while the average volatility in the US was 1.13.

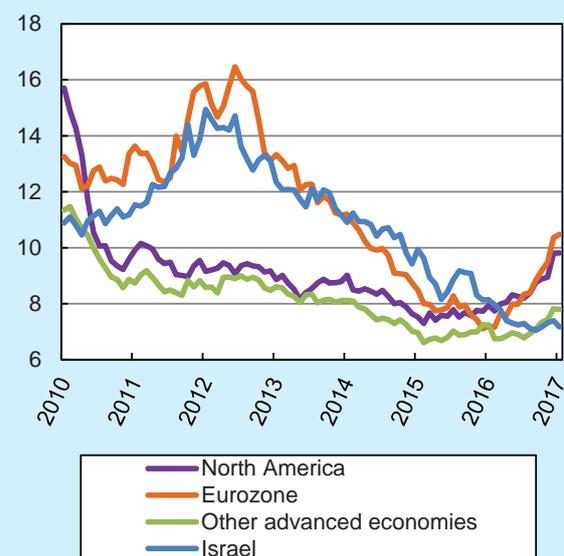
The COE in Israel is relatively low, but does not reflect in itself the banking industry's profitability level. To learn about the profitability, the COE should be compared to the ROE. Between 2010 and 2015, the banking system generated a negative gap, i.e., the actual return generated by the banks was lower than the cost of equity. The negative gap shows that investors' expected returns were higher than those actually achieved, reflecting an economy characterized by a high risk level - expressed in a high interest rate environment relative to the current one, as well as by high volatility in the capital market and bank stocks. From mid-2015, with the continued decline in the COE, the gap closed, later becoming positive and increasing consistently until the end of 2017 (Figure 4). The consistent decline in COE reflects investors' confidence

in the banks: Investors estimate that the risk of investing in the banks is declining and therefore demand a continuously decreasing risk premium for their investment. However, the decline in COE also likely shows that the market offers no safer alternative investments generating higher returns, and reflects the markets' low interest rate and high liquidity. The decrease in COE corresponds to the continuous decline in the banks' probability of default (Expected Default Frequency, EDF), which can be calculated using the banks' bonds. The decrease may also indicate that the default risk is declining. It should be noted that the changes that occurred during the period of estimating the ROE-COE gap arise from a decrease in the COE over the years, while the ROE the banks generated for their investors remained stable. It should also be noted that between 2010 and 2016, the ROE-COE gap in Israel shows a trend similar to that of the eurozone, but since early 2016, the eurozone has been experiencing a decline as a result of an increase in the COE for the European banks, while the uptrend in Israel continued; in late 2016, the gap in Israel stood at 1 percent.

Banking Supervision Department examinations indicate that like in the rest of the world⁷, the MV/BV ratio in Israel is also responding to the ROE-COE gap: The gap is affecting the ratio with a lag of a year and the correlation coefficient is 0.5 (Figure 5). It should be noted that the ROE-COE gap includes two factors, which affect the MV/BV in opposite directions: The ROE has a positive effect and the correlation coefficient stands at 0.7, while the COE has a negative effect, and the correlation coefficient stands at -0.5.

The cost of equity in Israel is similar to the cost in other advanced economies.

Figure 3
International Comparison^a of the Cost of Equity, 2010–17

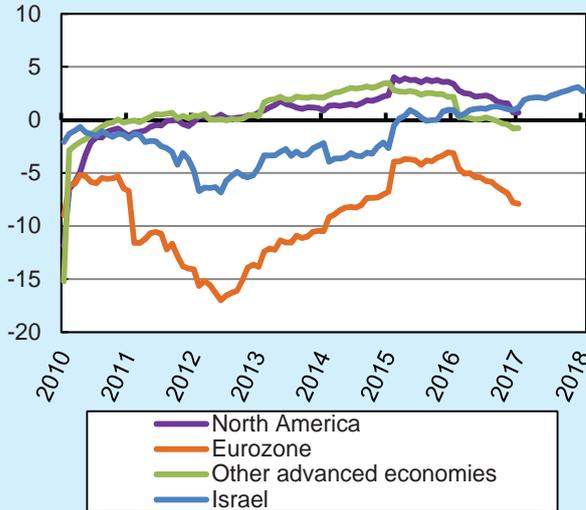


^a North America—US and Canada; Eurozone—Netherlands, Austria, Belgium, Germany, Spain, France and Italy; Other advanced economies—Australia, Switzerland, Japan and Sweden.
SOURCE: Based on BIS Annual Report 2017; published financial statements; Tel Aviv Stock Exchange; Damodaran tables; and Moody's ratings.

⁷ Based on BIS data, 2017 Annual Report.

Starting in 2012, the ROE–COE gap shows an upward trend, and its level is similar to the level in other advanced economies.

Figure 4
International Comparison^a of the ROE–COE Gap, 2010–18

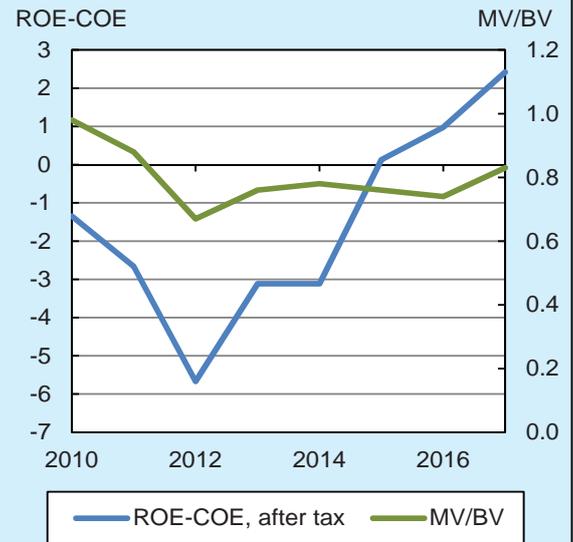


^a North America—US and Canada; Eurozone—Netherlands, Austria, Belgium, Germany, Spain, France and Italy; Other advanced economies—Australia, Switzerland, Japan and Sweden.

SOURCE: Based on BIS Annual Report 2017; published financial statements; Tel Aviv Stock Exchange; Damodaran tables; and Moody's ratings.

It seems that in most of the estimate years, the ROE–COE gap has a similar effect on the curve of the MV/BV ratio.

Figure 5
The Correlation Between the ROE-COE Gap and the BV/MV Ratio, the Five Banking Groups, 2010–17



SOURCE: Based on published financial statements, the Tel Aviv Stock Exchange, Damodaran tables, and Moody's ratings.

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Box 1.4**The Israeli Banking System's Performance in International Perspective**

- **International comparisons are a useful tool for assessing banks' stability and activities, and for monitoring the challenges and risks in their conduct.** Using them, the Banking Supervision Department learns how banks and regulators worldwide deal with a range of challenges, most of which are also characteristic of the domestic banking system.
- **For a considerable time, the credit quality of Israeli banks has been higher than banks in most countries in Europe and is similar to that of US banks.** This is due to, among other things, Israel's underwriting processes being stricter, and against the background of the supportive domestic economic conditions and the active steps taken by banks and the Banking Supervision Department in the area of credit, primarily reducing credit concentration and decreasing exposure to large and leveraged borrowers.
- **Israeli banks' profitability is slightly lower than that of the leading banks in Europe and the US,** primarily because Israel's banks take on lower risks; their range of activities is smaller (banks worldwide deal in, for example, marketing insurance and market making); their efficiency is lower; and the tax rate in Israel is higher.
- **Most banks in Israel are less efficient than similar banks in other OECD countries,** though their efficiency is on a trend of improvement in view of the requirements set by the Banking Supervision Department and the significant steps taken. The gap in efficiency derives from, among other things, wage expenses (affected by a high tax on salaries) and related benefits in Israel taking up a larger share in total operating expenses.
- **In Israel, as in most advanced economies, the retail banking business model has adjusted itself in recent years to a world of technology and of change in customer preferences. This process includes, among other things, a reduction in the number of bank branches (though at a slower pace than other countries) and a shift to digital banking.**
- **The physical accessibility of banking services in Israel—through branches and tellers—is similar to what is generally seen in OECD countries, and even exceeds it.** To illustrate, the number of bank branches per 1,000 square kilometers in Israel is markedly higher than the figure for OECD countries.
- **Israeli banks are similar to leading banks in terms of the implementation of the advanced and stricter capital allocation standards as set by the Basel rules.** The level of the leverage ratio in Israeli banks is higher than the level at global systemically important banks¹ and indicates that the Israeli banks have a higher level of safety due to the high capital buffers.

¹ Without excluding accounting differences.

- **In terms of liquidity, Israeli banks implement advanced standards, and, like leading banks in Europe, they exceed the minimum threshold requirement (100 percent) established in the Basel III principles.** In Israel, these principles have been formulated in Proper Conduct of Banking Business Directive no. 221 regarding the Liquidity Coverage Ratio (LCR)² and implemented since April 2015.
- **The dividend payout ratio (out of net income) among banks in Israel is lower than the ratio among leading banks worldwide, but it is on a rising trend.** As the banks are converging to regulatory capital and liquidity goals, the Banking Supervision Department has approved an increase in the payout ratio for most of them this year (Figure 16).

Banking area	State of the area in Israel compared with the state abroad	Recent trends
Equity	Higher than average	Improvement
Liquidity	Lower than average	Improvement
Efficiency	Lower than average	Improvement
Profitability	Lower than average	Improvement
Credit quality	Better than average	Improvement
Reduction of branches	Slower than average	Growth
Accessibility of physical services	Higher than average	Decline
Accessibility of digital services	Similar to average	Improvement
Net interest margin	Similar to average	Improvement
Dividend payout ratio	Lower than average	Growth

SOURCE: Based on Orbis, Bloomberg, Eurostat, ECB, EBA, FDIC, IMF, published financial reports, and reports to the Banking Supervision Department.

² The LCR, developed by the Basel Committee to enhance the short-term resilience of banking corporations' liquidity profiles, indicates the quantity of HQLA (High Quality Liquid Assets) that corporations should hold in order to withstand a significant stress scenario that lasts thirty calendar days. The LCR is composed of two elements. The first, on the numerator side, is the inventory of HQLA (High Quality Liquid Assets), which is comprised of two levels of assets. Level 1 includes high quality assets that may be held in unlimited amounts, and Level 2 is composed of assets that are limited to a maximum aggregate holding of 40 percent of the HQLA inventory. (This level is divided into two sublevels: 2A and 2B. At the latter level, the share of assets that may be held is limited to 15 percent.) The second element, on the denominator side, is the total net cash outflow, i.e., the expected total cash outflow less the expected total cash inflow in the stress scenario. The expected total cash outflow is calculated by multiplying the balances of different categories or types of balance-sheet and off-balance-sheet liabilities by their expected runoff or drawdown rates. The total expected cash inflow is calculated by multiplying outstanding contractual receivables by the rates at which they are expected to be received in the scenario, up to a cumulative 75 percent of the predicted total cash outflow.

International comparisons serve the Banking Supervision Department as a tool for evaluating the Israeli Banks' stability and for monitoring challenges and risks as they emerge.³ By creating peer groups that are comparable to the local banking system and each of the economy's major banking groups, the Banking Supervision Department ensures that the Israeli banking system meets high international standards and learns how banks and regulators around the world deal with a range of challenges, most of which are also characteristic of the domestic banking system. In recent years, these challenges mainly include erosion of the profit models in view of the low interest rate environment and increased competition by new players and technologies outside the industry, as well as stricter international standards regarding compliance, capital and liquidity—all of which impact the business results and require reevaluation and readjustment of the current business models. Israeli banks have not needed to address two major challenges faced by banks in various countries in recent years—a prolonged economic slowdown and consequences of the most recent global economic crisis; but they are exposed to other major challenges, mainly multiple legislative initiatives in the banking and financial domains—such as the Increasing Competition in Common Banking and Financial Services Law (the “Strum Law”)—and additional regulatory requirements in various areas, such as compliance, housing loans and operational efficiency.

The international comparisons are drawn using a comprehensive and overarching approach, partly by applying a series of financial ratios in five main areas: profitability and operational efficiency, physical accessibility of the banking services, credit quality, capital and liquidity.

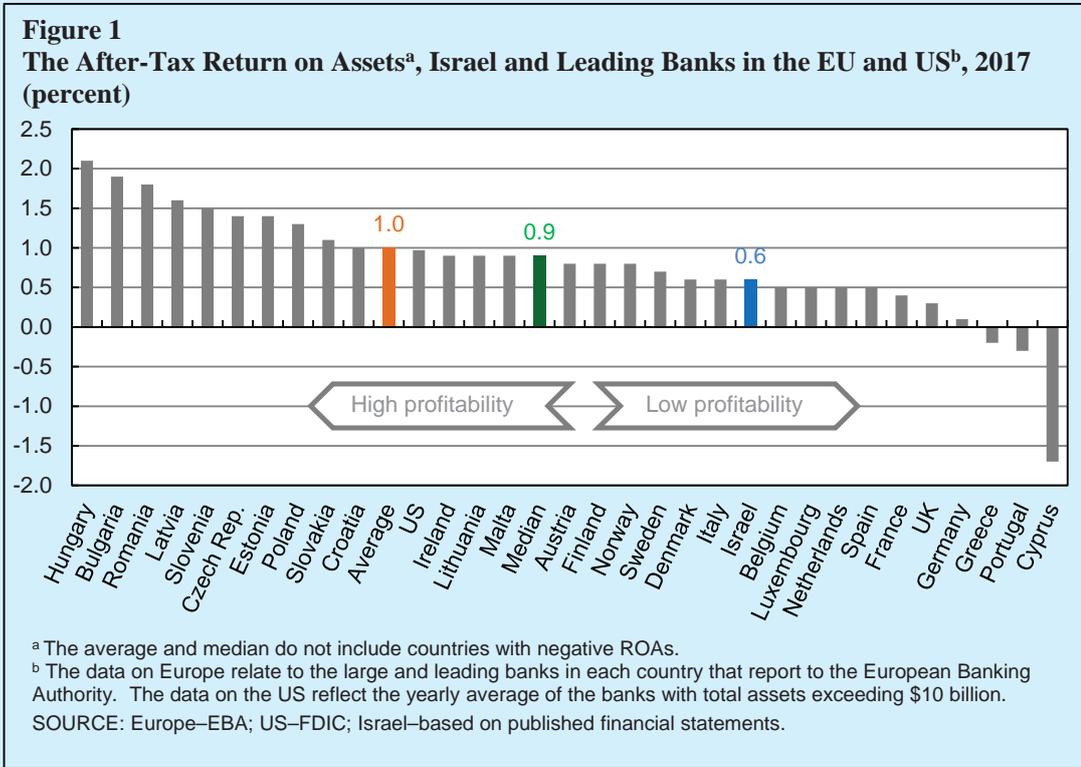
The banks' profitability remains one of banking's greatest challenges of the current era. The banks' profits are eroding due to the economic conditions, mainly the low interest rate environment and impaired credit quality in many countries (which is not, as aforesaid, characteristic of the Israeli banks); the structural, technological and consumer-related changes; and increased competition from players outside the industry. As a result, the banks are required to manage their expenses in a prudent manner.

The (after tax) returns on equity and assets of Israeli banks are lower than those characterizing banking systems and leading banks in Europe and the US. In December 2017, the return on assets in Israel stood at 0.6 percent, while the average and median stood at 1 percent and 0.9 percent, respectively (Figure 1). The return on equity reached 8.8 percent, while the said banks reached an average and median of 9.8 percent and 9.4 percent, respectively (Figure 2). The low profitability in Israel is especially notable taking into account that Israeli banks operate in an optimal economic environment; the banks' ability to generate returns from interest bearing activities, reflected in their

³ Due to data limitations, we used two comparison groups—banking systems in OECD member states and leading European and US banks, using three main data sources: The International Monetary Fund (IMF), the European Banking Authority (EBA) and the Federal Deposits Insurance Corporation (FDIC).

net interest margins (Figure 3) being no different than those of many European banks; and the fact that their quality of credit has been better than those of European banks for quite some time (Figures 9 and 10). This relatively low profitability may result from the Israeli banks' lower risk-taking, lower efficiency and higher salary expenses relative to their total expenses in relation to banks from other countries (Figure 4)⁴, but may also result from the regulatory and legal restrictions applying to their allowed business domains: The banks in Israel may not engage in underwriting, insurance, real estate brokering and development, and market making, while some banks around the world do engage in such activities.

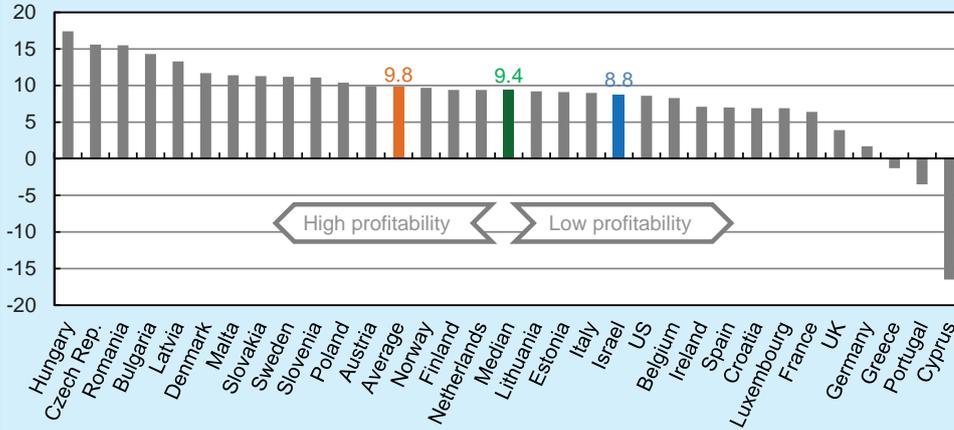
The return on assets at Israeli banks is lower than at leading banks in the EU and the US.



⁴ In Israel, salary tax expenses are included in the salary expenses line item, while in other countries, they are included in the tax expenses line item. Deducting the salary tax expenses from the salary component improves the ratio between the salary expenses and total operating expenses of Israeli banks by 7 basis points, but even then - their salary expenses are high by international perspective.

The profitability of the Israeli banks is slightly lower than that of the leading banks in the EU and US.

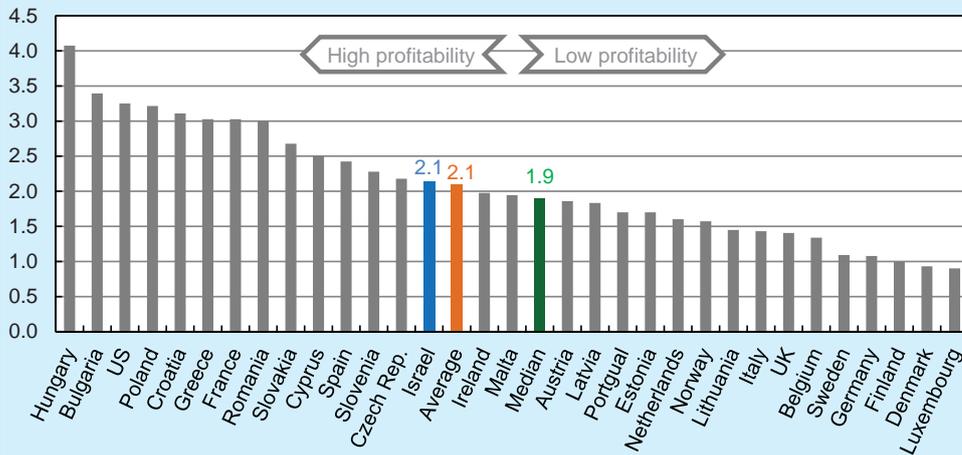
Figure 2
The After-Tax Return on Equity (ROE)^a, Israel and the Leading Banks in the EU and US^b, 2017 (percent)



^a The average and median do not include countries with negative ROAs.
^b The data on Europe relate to the large and leading banks in each country that report to the European Banking Authority. The data on the US reflect the yearly average of the banks with total assets exceeding \$10 billion.
 SOURCE: Europe–EBA; US–FDIC; Israel–based on published financial statements.

The net interest margin of the Israeli banks is similar to the average in western countries and lower than the spread in the US.

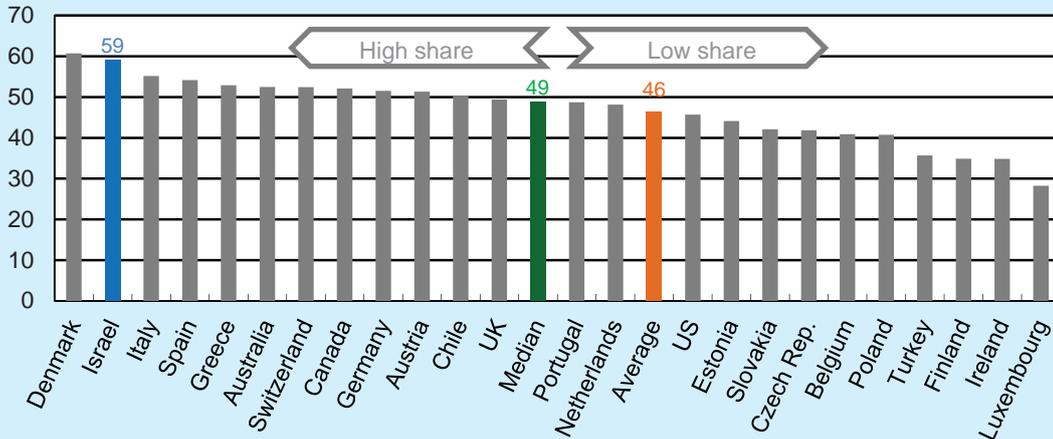
Figure 3
The Net Interest Margin^a, Israel and the Leading Banks in the EU and US^b, 2017



^a The ratio between net interest income and the average of interest-bearing assets.
^b The data on Europe relate to the large and leading banks in each country that report to the European Banking Authority. The data on the US reflect the yearly average of the banks with total assets exceeding \$10 billion.
 SOURCE: Europe–EBA; US–FDIC; Israel–based on published financial statements.

Wage expenses are a significant element in most OECD countries, but at Israeli banks they are particularly high, partly due to high payroll taxes.

Figure 4
Wage Expenses as a Share of Total Operating and Other Expenses, OECD Countries^a, Three-Year Average^b (percent)



^a Sweden, Hungary, Norway, Slovenia, France, S. Korea and Mexico are excluded from the comparison due to a lack of data.

^b The data for Australia, Canada, Estonia, Luxembourg, Netherlands, Poland, Slovakia, Spain, and the US reflect the average between 2014 and 2016. The data for the other countries reflect the average from 2013 to 2015.

SOURCE: Data on foreign countries—International Monetary Fund; Data on Israel—based on published financial statements.

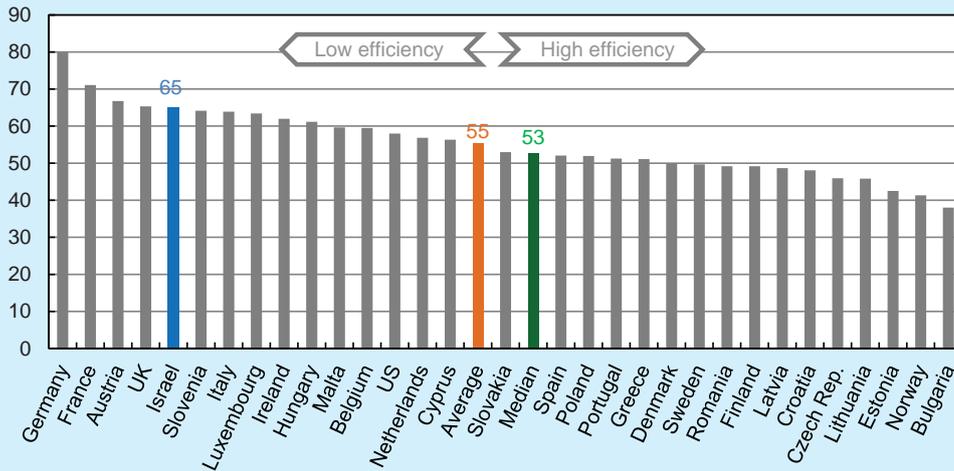
Operational efficiency: As aforesaid, Israeli banks’ expense structure is reflected in low efficiency in most banks and in the banking system as a whole relative to similar banks and banking systems in other OECD member states. To illustrate, the operational efficiency ratio—a figure which reflects the ratio of operating expenses out of total income (net interest income and operating income) stood, as at December 2017, at 65 percent, while in leading European banks, the average and median stood at 55 percent and 53 percent, respectively (Figure 5). The higher the ratio, the lower the bank’s efficiency is.

Other factors decreasing the domestic banks’ income and operational efficiency are the relatively low work productivity of the system’s employees (as well as of the Israeli business sector as a whole) and the relatively high tax rate imposed on domestic banks. In early 2016, in an effort to address these challenges and the changing financial reality, the Banking Supervision Department required banks to have efficiency plans that will enable them to cut costs. The banks responded positively, presenting significant efficiency plans for the coming years, which include structural changes, decreasing the number of branches, streamlining workflows, decreasing workforces and introducing additional cost-cutting measures (for more information, please see the section on business results). The said requirement alongside the changing reality and changes in consumer preferences have led to a decrease in the

number of bank branches in Israel, similarly to the situation in many countries around the world. Indeed, in 2011–17, the number of branches in Israel was down 8 percent; in EU countries and the US, the average decrease reached 17 percent (Figure 6).

The Israeli banks generally have low operating efficiency, but streamlining is leading to improvement.

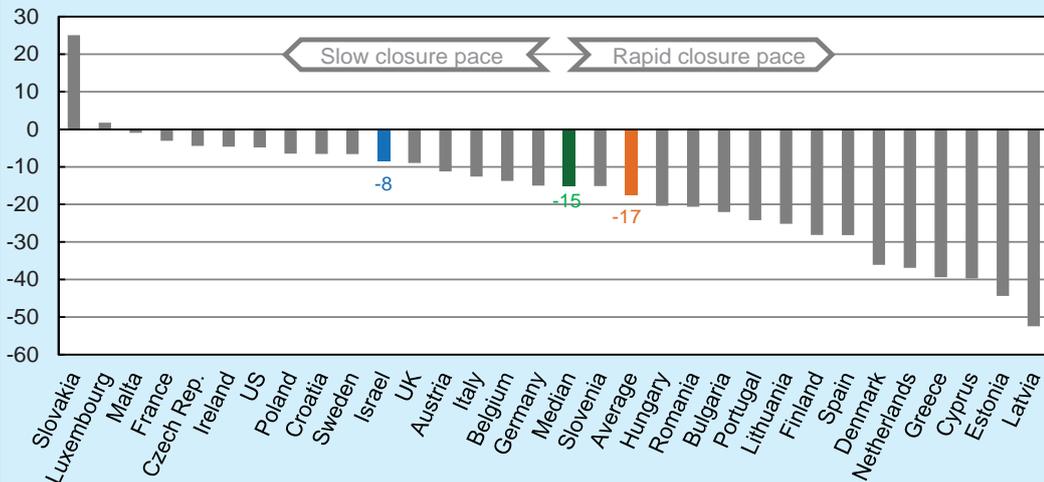
Figure 5
Efficiency Ratio^a, Israeli Banks and Leading Banks in the EU and US^b, 2017 (percent)



^a The ratio between total operating and other expenses and total assets (net interest income and noninterest income). The calculation for the US does not include loss of value in respect of intangible assets.
^b The data on Europe relate to the large and leading banks in each country that report to the European Banking Authority. The data on the US reflect the yearly average of the banks with total assets exceeding \$10 billion.
 SOURCE: Europe–EBA; US–FDIC; Israel–based on published financial statements.

The trend of closing branches began relatively late in Israel, and is progressing more slowly than among leading banks in the EU and US.

Figure 6
Cumulative Rate of Change in the Number of Bank Branches^a, Israel, the US and EU Countries, 2011–16^b (percent)



^a Excluding foreign operations.

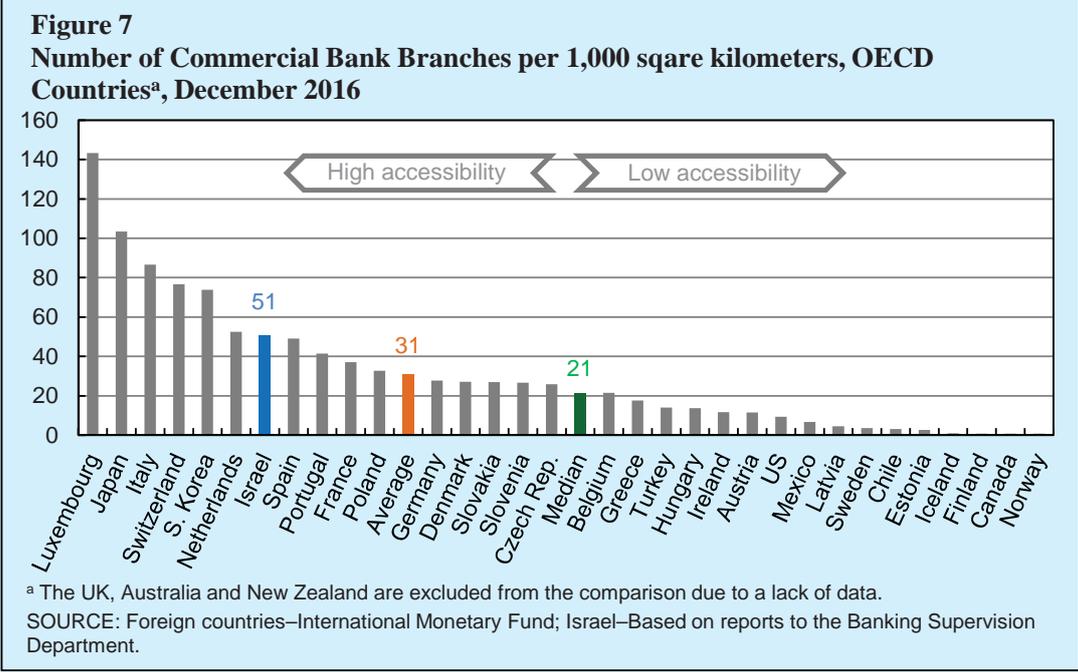
^b The value for Israel represents the rate of change between 2011 and 2017, and for the UK between 2011 and 2014.

SOURCE: Europe—ECB; US—FDIC; Israel—based on reports to the Banking Supervision Department.

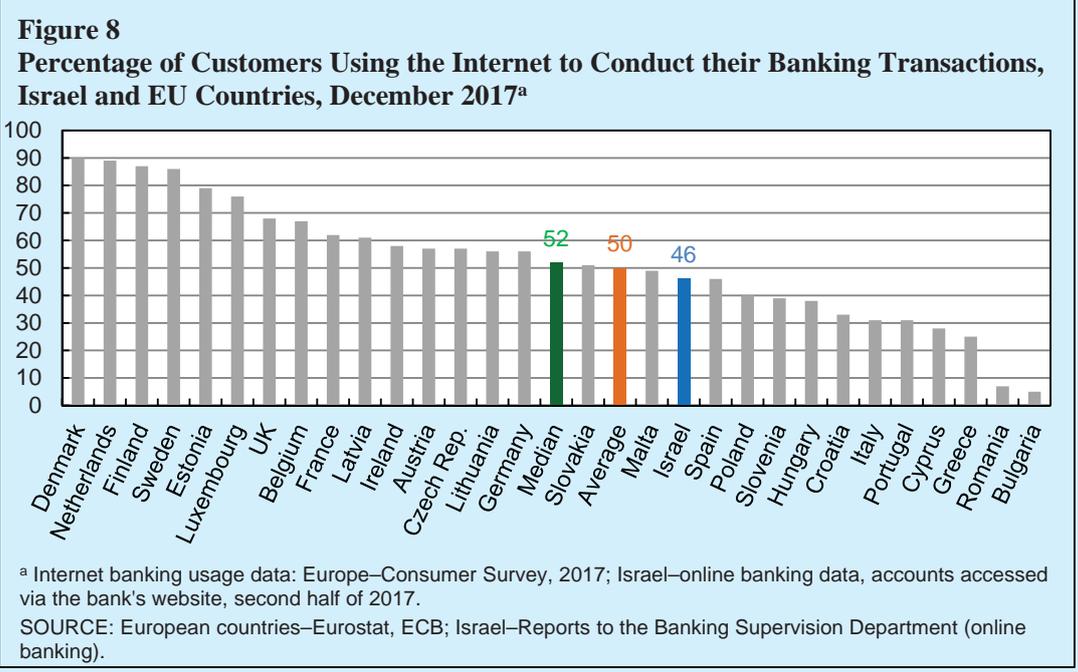
Accessibility and innovation: The closing of branches is correlated with the increase in the availability of direct banking services banks provide to their customers. Involving major investments, these tools allow customers to consume banking services at any time and at any place using mobile phones, websites, ATMs and call centers.

It should be noted that despite the decrease in the number of branches, the physical accessibility of services in Israel—through branches and clerks—is similar to, and even exceeds, the average accessibility in EU countries. To illustrate, the number of bank branches per 1000 square kilometers in Israel is significantly higher than in other OECD countries. The importance of the physical accessibility decreases in the current era, where customer needs and preferences undergo changes, and new, innovative technologies emerge for providing direct banking services. In this reality, accessibility in the broader sense is also impacted by many other factors, such as the rate of integrating technological changes, their quality, consumers’ willingness to adopt them, digitizing the banks’ internal workflows, etc. Indeed, when evaluating to what extent the Internet is used for consuming banking services, it appears that consumer habits in Israel are similar to the EU average (Figure 8). In recent years, the Banking Supervision Department has been promoting a wide range of initiatives aimed at increasing awareness of the option of consuming banking services through online channels among various population groups (youth, retirees, and others), encouraging the banks to train customers to use direct channels. These measures—along with the technological developments, increased competition from non-banking entities and the banks’ efficiency measures—are expected to further increase Israeli customers’ use of these channels.

The geographic deployment of bank branches in Israel is better than in most OECD countries.



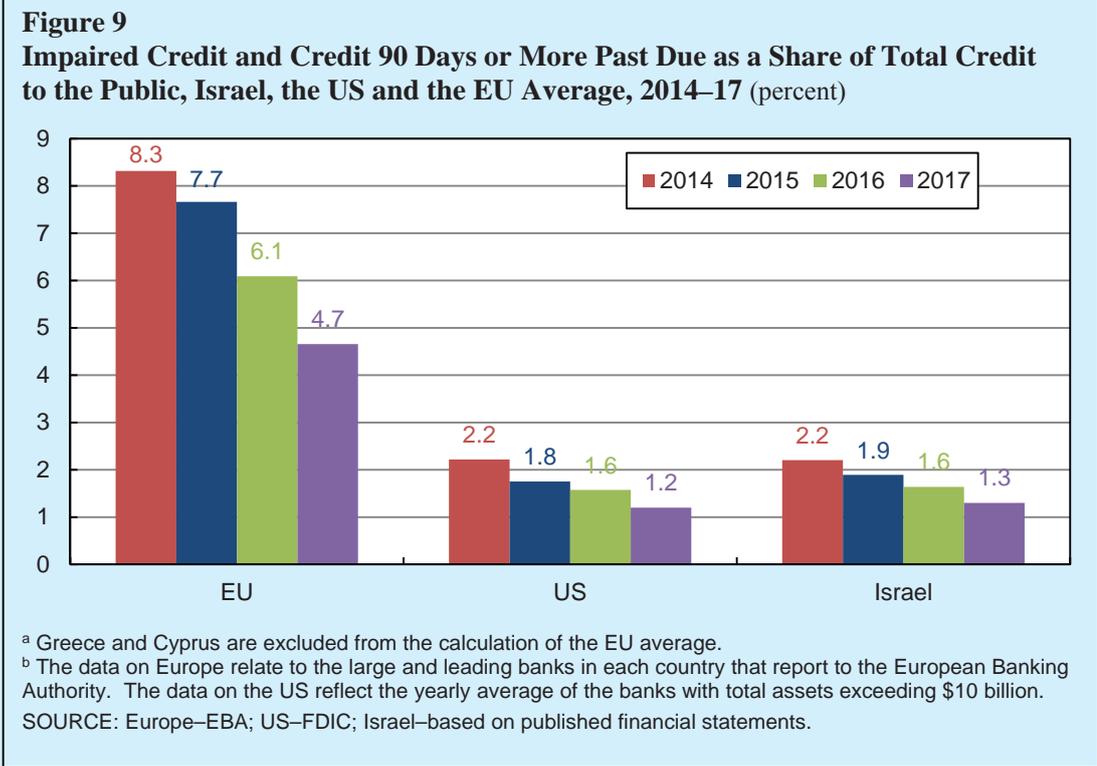
The percentage of Israeli customers doing their banking on the Internet is similar to the EU average.



Credit risk is one of the major risks to which banks are exposed. It expresses the probability of a borrower or group of borrowers failing to repay their debts to the bank. An impairment of credit quality has numerous ramifications for a bank’s business results, capital, stability and future performance. As a result, the Banking Supervision Department and the banks themselves attribute great importance to the matter and devote to it significant efforts. **Over time, the quality of banking credit in Israel has been good, and in many ways has exceeded that of most banking systems in other OECD countries and of leading European banks.**

The high quality of credit in Israel is reflected in impaired credit⁵ constituting a small portion of the banking credit (this figure examines the share of the credit a bank believes it may not be able to collect in full without realizing the collateral posted to secure it) and in the coverage ratio⁶ being high (this

The credit quality of the Israeli banks is significantly higher over time than that of the leading banks in Europe, and similar to that of the banks in the US.



⁵ Including 90 days or more past due loans.

⁶ The ratio between the outstanding loan loss provisions and the impaired credit and non-impaired 90 days or more past due loans.

figure examines the adequacy of the loan loss provisions over the years and the banks' ability to absorb expected losses without having to erode their equity capital). The two ratios also present historically good values, which the system has been able to achieve after years of ongoing improvement (Figures 9 and 10) as a result of the comfortable economic conditions in the domestic economy and active measures taken by the banks and the Banking Supervision Department in this area, specifically the reduction of credit concentration and exposure to large borrowers. In December 2017, the value of impaired credit in Israel stood at 1.3 percent, while leading European banks had average and median values of 4.7 percent and 3 percent, respectively (Figure 11). The coverage ratio was 92 percent, while the OECD average and median were 60 percent and 50 percent, respectively (Figure 12).

Capital ratios: Since a bank is required to prepare for unexpected developments and avoid a situation where they can lead to losses or even failure, the Banking Supervision Department requires the banks to maintain minimum capital ratios to serve as buffers. This requirement is not unique to Israel and is characteristic of all developed countries. In recent years, the Banking Supervision Department took a series of measures to reinforce banks' capital and stability, including, *inter alia*, the adoption of more stringent international standards regarding the capital's amount and quality and the definition of exposure to risk. These measures were compounded by additional measures initiated by the Department, including imposing restrictions on dividend distribution (until last year) and the type of capital components recognized as eligible for inclusion in the capital ratios. The adoption and implementation of the measures to increase the capital and its quality form part of the lessons drawn from the global financial crisis (although the Israeli banks have shown resilience) and were compounded by a mechanism for loss absorption, which would ensure that holders of the debt instruments would be the first to absorb the losses during a crisis, so as to decrease the probability of the banks' being bailed out using taxpayers' money. In April 2015, the Banking Supervision Department published Proper Conduct of Banking Business Directive no. 218, which requires Israel's two largest banks to maintain a minimum leverage ratio of 6 percent, and other banks a minimum of 5 percent, similar to the practice in the United States and more stringent than the original Basel III requirement (3 percent). **The implementation of these measures places Israeli banks among the leading banks and banking systems implementing the most advanced and stringent standards for capital allocation and capital recognition.**

The level of the leverage ratio in Israeli banks is higher than the level at global systemically important banks (Figure 13).

Regarding the other regulatory capital ratios, we chose not to show them since countries differ in their regulatory approaches toward capital allocation for credit risk, not allowing for adequate comparison. The Banking Supervision Department in Israel took a conservative approach when examining the feasibility and suitability of the Basel II framework to Israel, which led it to prefer the stringent approach towards measuring capital and allocating capital against credit risk (the Standardized Approach) over the advanced, lenient approaches (the Internal Models Approaches⁷) chosen by most regulators

⁷ IRB, Internal Rating Based Approach.

in developed economies. This conservative approach is currently proving itself, especially due to the significant criticism being expressed of the Internal Models Approaches and the fact that in December 2017, the Basel Committee published a proposal to alter the advanced approaches to capital allocation.⁸ The proposal's requirements were intended to reduce the built-in advantage existent for banks applying the Internal Models Approaches over capital allocation and as a result - over the capital ratios, by imposing restrictions on its use. These restrictions include, *inter alia*, setting a minimum threshold for the ratio between risk-weighted assets generated by the Internal Models Approaches and risk-weighted assets generated by the Standardized Approach (the ratio will gradually increase from 50 percent in 2022 to 72.5 percent in 2027); the threshold is intended to improve comparability between banks, but is expected to increase the risk-weighted assets and decrease the capital ratios presented by banks worldwide.⁹ The

European Central Bank has also begun to develop a project intended to examine the internal models used by 68 banks of systemic significance and evaluate their reliability and compliance with the TRIM regulatory requirements.¹⁰ This project is also expected to adversely affect European banks' capital ratios.

In the liquidity area, Israeli banks also apply advanced standards. Since April 2015, the local banks have been implementing Proper Conduct of Banking Business Directive no. 221 regarding the Liquidity Coverage Ratio (LCR), which adopts the Basel III recommendations in this area. The aggregate value of the ratio in Israeli banks is somewhat lower than in leading European banks (Figure 14), but the composition of liquid assets is of higher quality, which is reflected in the higher percentage of Level 1 assets (Figure 15). In addition, the value of the ratio in each of the Israeli banks exceeds the regulatory threshold (100 percent).

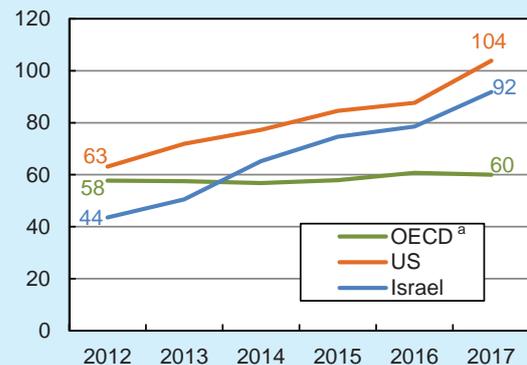
⁸ Basel III: Finalising post-crisis reforms (December 2017).

⁹ Strategic consulting firm McKinsey & Company estimated the effect of said threshold on the value of the Tier 1 capital ratio in several leading banking systems in Europe (Italy, Belgium, the UK, Germany, Denmark, the Netherlands, France and Sweden). It was found that the average ratio in these countries is expected to decrease from 13.4 percent in June 2016 to 9.5 percent. In Israel, the ratio is 10.9 percent (and the threshold is even more stringent, set at 100 percent). Please see Basel "IV": What's next for banks?

¹⁰ The Targeted Review of Internal Models (TRIM).

The capacity to cover expected credit losses improved significantly in recent years at the Israeli banks, and continues to improve.

Figure 10
Allowance for Credit Losses as a Share of Total Impaired Credit (Coverage Ratio), OECD Countries, 2012–17 (percent)

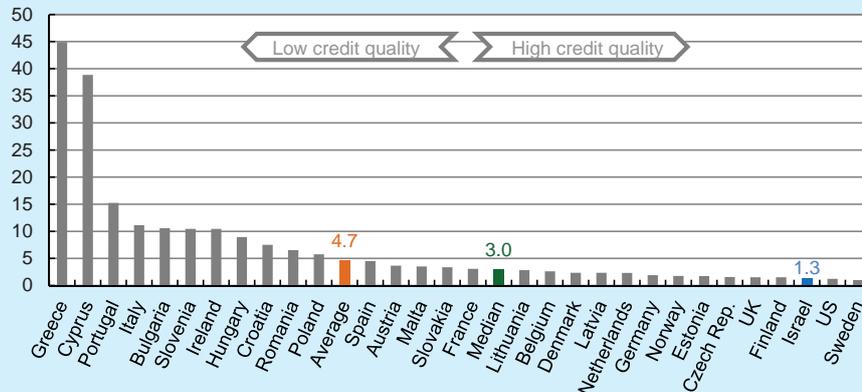


^a The OECD average does not include Finland, Luxembourg, Germany, Netherlands, Sweden, Japan, S. Korea, Latvia, or Switzerland due to lack of data. For the US it includes banks with assets that exceed \$10 billion.

SOURCE: US—FDIC; other foreign countries—IMF; Israel—based on published financial statements.

The quality of the Israeli banks' credit portfolio is good, and the share of low-quality credit is similar to the US and significantly lower than the leading banks in Europe.

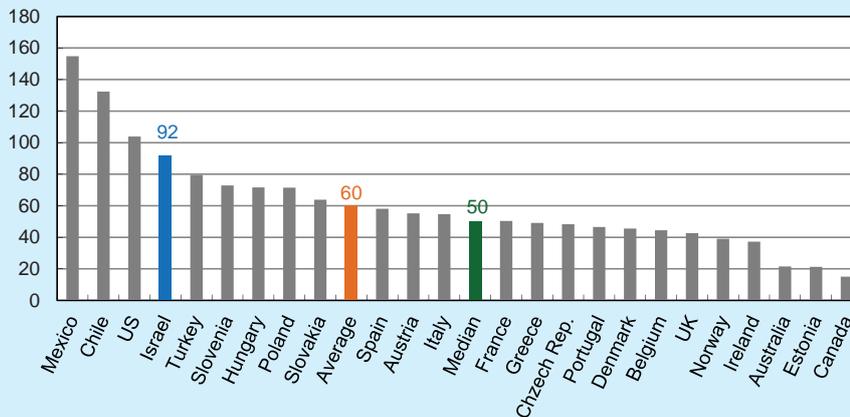
Figure 11
Impaired Credit and Credit 90 Days or More Past Due as a Share of Total Credit to the Public^a, Israel and leading banks in the US and EU^b, 2017 (percent)



^a Greece and Cyprus are excluded from the calculation of the average and median.
^b The data on Europe relate to the large and leading banks in each country that report to the European Banking Authority. The data on the US reflect the yearly average of the banks with total assets exceeding \$10 billion.
 SOURCE: Europe—EBA; US—FDIC; Israel—based on published financial statements.

The Israeli banks have a high absorption buffer against credit losses: The ratio between loan loss provisions and low-quality credit is better over time than the ratio in most OECD countries, but lower than the US.

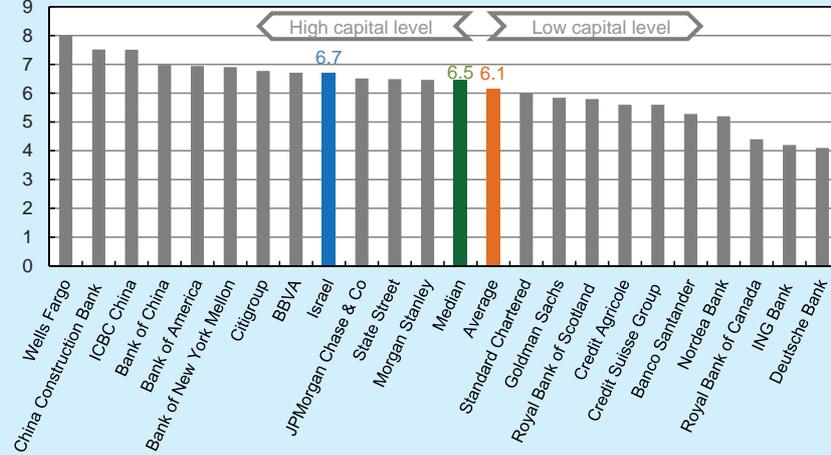
Figure 12
Loan Loss Provisions as a Share of Total Impaired Credit^a, OECD Countries^b, 2016–17^c (percent)



^a Different countries classify impaired credit in different ways (in Israel it includes nonimpaired credit that is 90 days or more past due).
^b Finland, Germany, Netherlands, Luxembourg, Sweden, US, New Zealand, Iceland, Switzerland, S. Korea, Latvia, and Japan are not included in the comparison due to lack of data.
^c The data on Israel, Mexico, Slovenia, Hungary, Poland, Spain, Austria, Australia, Estonia, and Canada are as of December 2017. The data on Chile, France, Greece, Czech Rep., Portugal, Denmark, Belgium, and Ireland are as of September 2017. The data on Slovakia, Italy, UK and Norway are as of June 2017.
 SOURCE: Foreign countries—International Monetary Fund; Israel—based on published financial statements.

The Israeli banks have high levels of capital. The leverage ratio of the Israeli banks is higher than for systemically important international banks.

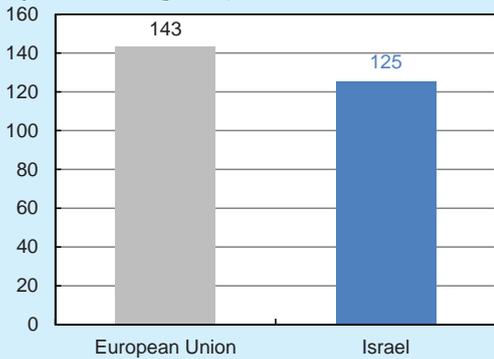
Figure 13
Leverage Ratio (Basel III)^a, Israel and Systemically Important International Banks^b, 2017 (percent)



^a Reported values. Without adjusting for accounting differences.
^b Banks defined by the FSB as having global systemic importance (G-SIB). Israel—the five banking groups.
 SOURCE: Foreign banks—Orbis; Israel—based on published financial statements.

The liquidity of the Israeli banks has improved in recent years, and exceeds the minimum regulatory requirements, although it is slightly lower than the average of the leading European banks.

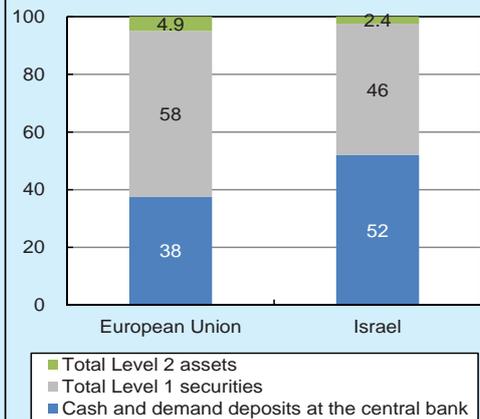
Figure 14
Liquidity Coverage Ratio (Total Activity) of the Israeli Banks and in the EU^a, Total Banking System, 2017^b (percent)



^a Calculated on a consolidated basis.
^b Data on Israel are as of December 2017; Data on Europe are as of June 2017.
 SOURCE: Data on Europe-EBA; Data on Israel-based on reports to the Banking Supervision Department.

The quality of the Israeli banks' liquid assets is higher than that of the leading banks in Europe.

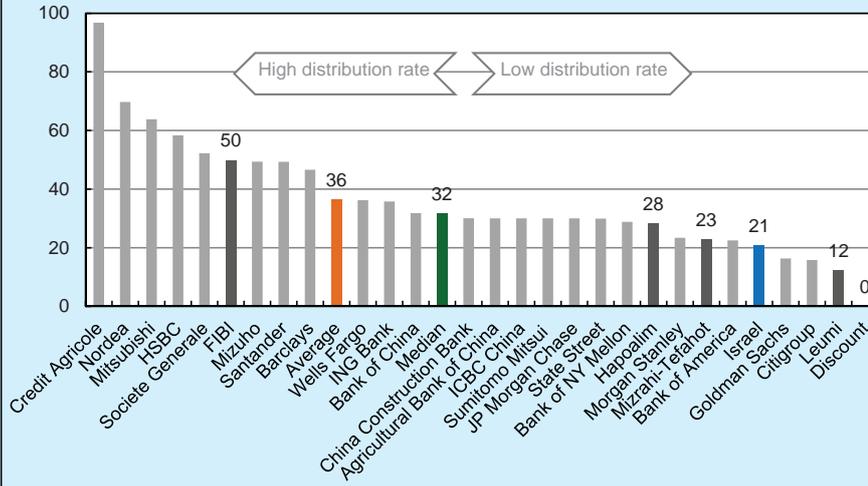
Figure 15
Composition of the Stock of High-Quality Liquid Assets of Banks in Israel^a and the European Union^b, December 2017 (percent)



^a Calculated on a consolidated basis.
^b European Union values are the June 2017 averages.
 SOURCE: Based on reports to the Banking Supervision Department.

The dividend payout ratio in Israel is lower than the average at systemically important banks abroad, but is in an upward trend.

Figure 16
The Dividend Payout Ratio^a of the Five Banking Groups in Israel and of Systemically Important Global Banking Corporations^b, Dec. 2017 and Dec. 2016^c (percent)



^a The dividend paid as a share of total net profit.
^b According to BIS definition.
^c At the Israeli banks, the dividend rate is equal to the average in the four quarters of 2017. At the American banks and at HSBC, it is equal to the average in the first two quarters of 2017, and at the others it is the annual rate in 2016.
 SOURCE: Foreign banks—Bloomberg; Israeli banks—based on published financial statements.

Table 1.1
Principle banking system indices, December 2001 to December 2017

	Ratio of market value to book value ^a (MV/BV)	Average yield spread between bonds of the banks and government bonds ^b (percentage points)	Ratio of credit to GDP ^{c,d} (percent)	Rate of change in balance-sheet credit to the public ^{d,e} (percent)	Annual loan loss provision to total credit to the public ^{e,f} (percent)	Liquidity coverage ratio ^{d,g} (percent)	Ratio of credit ^{f,h} to deposits (percent)	Common Equity Tier 1 capital ratio ^{fi} (percent)	Equity to total balance-sheet assets ^f (percent)	Leverage ratio ^{fi,j} (percent)	ROE ^f (percent)
2001	0.91	0.7	109.4	-	0.84		0.81		4.9		5.6
2002	0.56	0.8	104.6	-1.1	1.32		0.83		4.9		2.5
2003	0.85	0.7	102.8	-1.7	1.12		0.82		5.3		8.3
2004	1.06	0.7	98.5	0.1	0.92		0.80		5.5		12.4
2005	1.45	0.7	99.7	6.7	0.69		0.82		5.4		14.5
2006	1.33	0.6	94.6	2.0	0.52		0.80		5.9		17.3
2007	1.21	0.9	94.8	7.7	0.28		0.85		6.1		15.6
2008	0.56	2.0	98.9	10.3	0.72		0.90		5.7		0.3
2009	1.11	1.6	93.0	-1.4	0.75		0.86	7.9 ^k	6.3		8.8
2010	1.06	1.0	92.7	7.2	0.41		0.91	8.2	6.7		9.8
2011	0.69	1.3	89.6	3.7	0.39		0.89	8.0	6.2		10.2
2012	0.78	1.0	86.4	2.1	0.41		0.87	8.7	6.6		7.9
2013	0.84	0.9	82.0	1.1	0.25		0.87	9.3	6.9		8.7
Jan-14								9.1 ^l			
2014	0.72	0.9	81.9	4.3	0.15		0.85	9.2	6.7		7.3
Jun-15						103 ^l				6.5 ^l	
2015	0.74	0.9	81.7	5.2	0.12		0.84	9.6	6.9	6.4	9.1
2016	0.84	0.7	79.9	2.7	0.10	135	0.81	10.7	7.0	6.6	8.3
2017	0.96	0.6	79.8	3.3	0.14	117	0.81	10.9	7.2	6.7	8.8

^a In calculating the MV/BV ratio, the book value (BV) of the five major banks is calculated with a delay of one quarter after the market value (MV). As of December 2014, the book value includes the effect of employee rights and software expenses.

^b Average for December of that year.

^c Measured in relation to gross credit.

^d Measured in relation to the entire banking system.

^e Until December 2010—net credit to the public; from December 2011—gross credit to the public.

^f Measured in relation to the five banking groups.

^g Calculated on a consolidated basis, and based on end-of-period balances.

^h Calculated in relation to net credit.

ⁱ Until December 31, 2013, the banking corporations presented the Core Tier 1 capital ratio, in accordance with Basel II principles.

^j Calculated as the ratio between Tier 1 capital and total exposures, in accordance with Basel III principles.

^k Calculated in accordance with Basel II principles.

^l Calculated in accordance with Basel III principles.

^m Calculated in accordance with Basel III principles in accordance with the transition directives.

SOURCE: Banking Supervision Department based on Central Bureau of Statistics, Tel Aviv Stock Exchange, Bank of Israel, published financial statements, and reports to the Banking Supervision Department.

Table 1.2
Structure of the banking system, December 2017^a

Bank	Balance-sheet data					Direct holdings			Size data		
	Share of total banking system assets (Percent)	Share of total bank credit (Percent)	Total assets (NIS million)	Credit to the public (NIS million)	Total deposits (NIS million)	Equity	Holdings by parties at interest ^b (Percent)	Institutional holdings (Percent)	Public holdings	Number of branches ^c	Number of employee posts ^d
Leumi ^e	28.4	26.8	450,838	271,216	362,478	33,553	5.9	5.1	89.1	219	11,661
Hapoalim	28.7	27.9	454,424	282,507	347,351	36,004	20.3	0.0	79.7	234	11,506
Discount	14.0	14.9	221,221	150,868	175,170	16,068	0.1	5.9	94.0	196	8,643
Mizrahi-Tefahot	15.1	18.1	239,572	182,602	183,573	14,327	44.3	0.0	55.8	190	6,215
First International	8.6	8.0	135,717	81,216	113,511	8,046	48.4	6.4	45.2	161	4,512
Total for the five banking groups	94.7	95.8	1,501,772	968,409	1,182,083	107,998				1,000	42,537
Union Bank of Israel	2.6	2.5	41,892	24,925	32,752	2,513	74.8	0.3	24.9	36	1,278
Bank of Jerusalem	0.9	1.0	13,554	9,772	10,560	837	86.6	0.0	13.4	20	607
Dexia Israel Bank	0.5	0.5	8,696	4,568	3,862	661	65.4	0.0	34.6	1	44
Total for the independent banks	4.0	3.9	64,141	39,265	47,174	4,012				57	1,929
Total for foreign bank branches^f	1.2	0.3	19,753	3,498	17,477					6	
Total for banking system	100	100	1,585,666	1,011,172	1,246,734	112,010				1,063	44,466

^a Financial data for the five banking groups are presented on a consolidated basis, and the numbers of branches and of employee posts include all banks belonging to the group.

^b A "party at interest" is defined as someone holding five percent or more of the issued share capital of a corporation or of voting rights in the corporation. In addition, the reporting on holdings of parties at interest includes the holdings of the CEO and of Directors.

^c The number of branches includes activities abroad, performance units and extensions of parent branches.

^d On a monthly average basis.

^e Bank Leumi is the only banking group in the system where there is still a government holding (about 6 percent of the bank's capital).

^f The balance-sheet data for Barclays Bank are not included in the calculation of aggregate values due to the characteristics of its activity.

SOURCE: Based on published financial statements, reports to the Banking Supervision Department, and reports to the Stock Exchange.

Table 1.3
Main items in consolidated profit and loss statements of the five banking groups, 2015–17
 (NIS million, at current prices)

	Leumi			Hapoalim			Discount			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	% change in 2017 compared with 2016
Interest income	8,784	9,552	10,069	9,837	10,200	10,889	5,265	5,659	6,213	9.8
Interest expenses	1,666	2,026	2,023	1,952	2,007	2,192	1,042	1,102	1,238	12.3
Net interest income	7,118	7,526	8,046	7,885	8,193	8,697	4,223	4,557	4,975	9.2
Loan loss provisions	199	-125	172	475	269	323	187	469	574	22.4
Net interest income after loan loss provisions	6,919	7,651	7,874	7,410	7,924	8,374	4,036	4,088	4,401	7.7
Noninterest income	6,297	5,408	5,428	6,477	6,528	5,933	3,053	3,439	3,399	-1.2
<i>of which: Noninterest financing income</i>	1,610	1,282	919	1,044	1,152	637	363	754	595	-21.1
<i>of which: Stocks^a</i>	1,298	478	90	94	329	185	-52	444	233	-47.5
<i>Bonds^b</i>	248	273	41	520	204	126	239	138	139	0.7
<i>Activity in derivative instruments^c</i>	-257	-213	-1,722	588	555	-951	-341	-291	-904	210.7
<i>Exchange rate differentials</i>	310	700	2,501	-161	-29	1,273	504	449	1,107	146.5
<i>of which: Fees</i>	4,092	3,967	4,138	5,287	5,216	5,111	2,611	2,585	2,717	5.1
Total operating and other expenses	8,836	8,580	8,501	8,790	9,490	9,616	5,725	5,814	5,735	-1.4
<i>of which: salaries and related expenses</i>	5,544	5,422	5,272	4,934	4,783	4,843	3,396	3,416	3,366	-1.5
Pre-tax profit	4,380	4,479	4,801	5,097	4,962	4,691	1,364	1,713	2,065	20.5
Income tax provision	1,691	1,717	1,692	2,097	2,358	2,077	566	741	747	0.8
After tax profit	2,689	2,762	3,109	3,000	2,604	2,614	798	972	1,318	35.6
Net income attributed to shareholders	2,835	2,791	3,172	3,082	2,628	2,660	750	905	1,259	39.1
Total pre-tax ROE (percent)	15.87	14.94	14.79	15.89	14.58	13.23	10.55	12.49	13.78	
Total after-tax ROE (percent)	10.27	9.31	9.77	9.61	7.72	7.50	5.80	6.60	8.40	
Total ROA (percent)	0.72	0.65	0.71	0.73	0.60	0.59	0.36	0.43	0.57	

Table 1.3 (cont'd.)
Main items in consolidated profit and loss statements of the five banking groups, 2015–17
(NIS million, at current prices)

	Mizrachi-Tefahot					First International					Total for the five groups					
	2015	2016	2017	% change in 2017 compared with 2016	2015	2016	2017	% change in 2017 compared with 2016	2015	2016	2017	% change in 2017 compared with 2016	2015	2016	2017	% change in 2017 compared with 2016
Interest income	4,906	5,311	6,222	17.2	2,260	2,526	2,704	7.0	31,052	33,248	36,097	8.6	31,052	33,248	36,097	8.6
Interest expenses	1,372	1,533	1,875	22.3	307	357	402	12.6	6,339	7,025	7,730	10.0	6,339	7,025	7,730	10.0
Net interest income	3,534	3,778	4,347	15.1	1,953	2,169	2,302	6.1	24,713	26,223	28,367	8.2	24,713	26,223	28,367	8.2
Loan loss provisions	211	200	192	-4.0	18	80	121	51.3	1,090	893	1,382	54.8	1,090	893	1,382	54.8
Net interest income after loan loss provisions	3,323	3,578	4,155	16.1	1,935	2,089	2,181	4.4	23,623	25,330	26,985	6.5	23,623	25,330	26,985	6.5
Noninterest income	1,858	1,862	1,653	-11.2	1,541	1,480	1,450	-2.0	19,226	18,717	17,863	-4.6	19,226	18,717	17,863	-4.6
<i>of which: Noninterest financing income</i>	358	295	136	-53.9	149	115	83	-27.8	3,524	3,598	2,370	-34.1	3,524	3,598	2,370	-34.1
<i>of which: Stocks^a</i>	7	6	12	100.0	22	25	11	-56.0	1,369	1,282	531	-58.6	1,369	1,282	531	-58.6
<i>Bonds^b</i>	180	72	43	-40.3	84	41	19	-53.7	1,271	728	368	-49.5	1,271	728	368	-49.5
Activity in derivative instruments ^c	34	-192	-1,119	482.8	-33	-193	-520	169.4	-9	-334	-5,216	-	-9	-334	-5,216	-
Exchange rate differentials	136	364	1,196	228.6	76	242	573	136.8	865	1,726	6,650	-	865	1,726	6,650	-
<i>of which: Fees</i>	1,426	1,433	1,423	-0.7	1,378	1,300	1,305	0.4	14,794	14,501	14,694	1.3	14,794	14,501	14,694	1.3
Total operating and other expenses	3,226	3,299	3,611	9.5	2,710	2,683	2,607	-2.8	29,287	29,866	30,070	0.7	29,287	29,866	30,070	0.7
<i>of which: salaries and related expenses</i>	1,944	2,071	2,326	12.3	1,629	1,656	1,627	-1.8	17,447	17,348	17,434	0.5	17,447	17,348	17,434	0.5
Pre-tax profit	1,955	2,141	2,197	2.6	766	886	1,024	15.6	13,562	14,181	14,778	4.2	13,562	14,181	14,778	4.2
Income tax provision	761	833	806	-3.2	326	398	358	-10.1	5,441	6,047	5,680	-6.1	5,441	6,047	5,680	-6.1
After tax profit	1,194	1,308	1,391	6.3	440	488	666	36.5	8,121	8,134	9,098	11.9	8,121	8,134	9,098	11.9
Net income attributed to shareholders	1,134	1,266	1,347	6.4	446	521	678	30.1	8,247	8,111	9,116	12.4	8,247	8,111	9,116	12.4
Total pre-tax ROE (percent)	17.24	17.25	16.64		11.16	12.24	13.74		14.93	14.56	14.27		14.93	14.56	14.27	
Total after-tax ROE (percent)	10.00	10.20	10.20		6.50	7.20	9.10		9.08	8.33	8.80		9.08	8.33	8.80	
Total ROA (percent)	0.56	0.58	0.57		0.37	0.41	0.51		0.61	0.57	0.61		0.61	0.57	0.61	

^a includes the profits/losses from investments in shares available for sale, profits from the sales of shares of affiliated companies, dividends and profits/losses from adjustments to fair value of tradable shares.

^b includes the profits/losses from investments in bonds held to maturity and available for sale and income/expenses realized and not yet realized from adjustments to fair value of tradable bonds.

^c includes derivative instruments not intended for hedging purposes (ALM instruments) and other derivative instruments.

SOURCE: Based on published financial statements.

Table 1.4
The effect of quantity^a and price^b on interest income and expenses, the five banking groups, 2017 compared with 2016

	2017				2016				Net change					
	Quantity effect		Share of contribution to net interest income (percent)		Price effect		Share of contribution to net interest income (percent)		Assets side (NIS million)		Liabilities side (NIS million)		Contribution to net interest income (percent)	
Credit to the public / deposits of the public in Israel	788	145	643	33.9	1,694	442	1,252	66.1	2,482	587	1,895			
Credit to the public / deposits of the public abroad	-251	79	-172	122.0	236	205	31	-22.0	-15	126	-141			
Total credit to the public / deposits of the public	537	66	471	26.9	1,930	647	1,283	73.1	2,467	713	1,754			
Other interest-bearing assets / liabilities in Israel	196	-142	338	121.1	67	126	-59	-21.1	263	-16	279			
Other interest-bearing assets / liabilities abroad	-99	-55	-44	-39.6	218	63	155	139.6	119	8	111			
Total other interest-bearing assets / liabilities	97	-197	294	75.4	285	189	96	24.6	382	-8	390			
Total interest income / expenses	634	-131	765	35.7	2,215	836	1,379	64.3	2,849	705	2,144			
	2017				2016				Net change					
	Quantity effect		Share of contribution to net interest income (percent)		Price effect		Share of contribution to net interest income (percent)		Assets side (NIS million)		Liabilities side (NIS million)		Contribution to net interest income (percent)	
Credit to the public / deposits of the public in Israel	1,424	158	1,266	82.1	550	276	274	17.8	1,974	434	1,540			
Credit to the public / deposits of the public abroad	-3	15	-18	90.0	111	113	-2	10.0	108	128	-20			
Total credit to the public / deposits of the public	1,421	173	1,248	82.1	661	389	272	17.9	2,082	562	1,520			
Other interest-bearing assets / liabilities in Israel	264	87	177	-276.6	-147	94	-241	376.6	117	181	-64			
Other interest-bearing assets / liabilities abroad	-113	-47	-66	-122.2	110	-10	120	222.2	-3	-57	54			
Total other interest-bearing assets / liabilities	151	40	111	-1,110.0	-37	84	-121	1,210.0	114	124	-10			
Total interest income / expenses	1,572	213	1,359	90.0	624	473	151	10.0	2,196	686	1,510			

^a The quantity effect is calculated as the change in the balance-sheet balance (current year versus previous year) multiplied by the price during the current period, divided by 1000.

^b The price effect is calculated as the change in price (current year versus previous year) multiplied by the balance-sheet balance for the same period in the previous year, divided by 1000.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.6
Fees and other income, and operating expenses, the five banking groups, 2015–17

	Amounts			Distribution			Changes compared with previous year	
	2015	2016	2017	2015	2016	2017	2016	2017
	(NIS million, at current prices)			(Percent)				
1. Fees and other income								
Income from banking services								
Account management fees	2,838	2,737	2,698	18.1	18.1	17.4	-3.6	-1.4
Credit cards	3,928	4,157	4,386	25.0	27.5	28.3	5.8	5.5
Credit services and contracts	605	633	609	3.9	4.2	3.9	4.6	-3.8
Foreign trade activity and special services	387	387	359	2.5	2.6	2.3	0.0	-7.2
Other fees ^a	1,600	1,561	1,547	10.2	10.3	10.0	-2.4	-0.9
Total income from services	9,358	9,475	9,599	59.6	62.7	62.0	1.3	1.3
Income from capital market activity								
From securities activity	2,742	2,394	2,402	17.5	15.8	15.5	-12.7	0.3
Financial products ^b distribution fees	916	845	879	5.8	5.6	5.7	-7.8	4.0
Management, operational and trust fees for institutional investors	230	216	223	1.5	1.4	1.4	-6.1	3.2
Total income from capital market activity	3,888	3,455	3,504	24.8	22.9	22.6	-11.1	1.4
Fees from financing transactions	1,548	1,571	1,591	9.9	10.4	10.3	1.5	1.3
Other income^c	908	618	799	5.8	4.1	5.2	-31.9	29.3
Total fees and other income	15,702	15,119	15,493	100.0	100.0	100.0	-3.7	2.5
2. Operating expenses								
Salaries and related expenses ^d	17,447	17,348	17,434	59.6	58.1	58.0	-0.6	0.5
<i>Of which:</i> Salaries	11,516	11,124	11,049	39.3	37.2	36.7	-3.4	-0.7
Maintenance and depreciation of premises and equipment	5,511	5,396	5,302	18.8	18.1	17.6	-2.1	-1.7
Amortization and write-down of intangible assets and goodwill	143	116	94	0.5	0.4	0.3	-18.9	-19.0
Other expenses	6,186	7,006	7,240	21.1	23.5	24.1	13.3	3.3
<i>Of which:</i> Marketing and advertising	919	1,016	1,025	3.1	3.4	3.4	10.6	0.9
Computer expenses	884	948	977	3.0	3.2	3.2	7.2	3.1
Communications	655	632	623	2.2	2.1	2.1	-3.5	-1.4
Insurance	106	264	362	0.4	0.9	1.2	149.1	37.1
Office expenses	287	276	267	1.0	0.9	0.9	-3.8	-3.3
Professional services	955	1,034	969	3.3	3.5	3.2	8.3	-6.3
Total operating expenses	29,287	29,866	30,070	100.0	100.0	100.0	2.0	0.7

^a Includes mainly margin and collection fees on credit from the Finance Ministry, conversion and other differentials.

^b Within the framework of the Bachar reform, the banks began to charge a distribution fee. The distribution fee ceiling with regard to mutual funds is currently 0.2 percent of the assets in funds that focus on investments in government or low-risk bonds (Type 1 fund), 0.1 percent of assets in money market funds (Type 4 fund), and 0.35 percent of assets in other funds (Type 3 funds). The fee ceiling for provident funds and pension funds is 0.25 percent of assets in the fund.

^c Includes profit from the realization of assets received in respect of the discharge of credit, management fees from related companies and other income.

^d Includes payroll tax, severance pay, benefits, pension and national insurance.

SOURCE: Based on published financial statements.

Table 1.7
Unit output cost^a and efficiency ratio^b of the banking corporations in Israel, 2013–17
 (percent)

Year	Leumi	Hapoalim	Discount	Mizrachi-Tefahot	First International	Five banking groups	Union	Jerusalem	Dexia	Total banking system
Unit output cost										
2013	2.35	2.39	2.96	1.73	2.64	2.40	2.09	2.27	0.58	2.38
2014	2.43	2.33	3.15	1.61	2.55	2.40	2.09	2.56	0.51	2.38
2015	2.17	2.09	2.78	1.58	2.23	2.16	2.05	2.58	0.62	2.15
2016	2.01	2.16	2.74	1.50	2.12	2.09	2.46	2.72	0.59	2.10
2017	1.91	2.13	2.60	1.54	1.98	2.03	2.15	2.88	0.54	2.03
Efficiency ratio										
2013	68.9	66.2	78.1	59.5	74.3	69.1	80.1	80.5	37.3	69.3
2014	74.9	65.5	87.0	60.9	77.3	72.5	87.9	75.8	32.2	72.7
2015	65.9	61.2	78.7	59.8	77.6	66.7	87.6	76.7	40.5	67.1
2016	66.3	64.5	72.7	58.5	73.5	66.5	95.4	75.7	40.4	67.1
2017	63.1	65.7	68.5	60.2	69.5	65.0	77.3	81.8	54.4	65.5

^a The ratio between total operating and other expenses and the average balance of assets (average cost).

^b The ratio between total operating and other expenses and total net interest and noninterest income (cost-to-income)

SOURCE: Based on published financial statements.

Table 1.8
Number of employee posts and expenses by annual wage level, the five banking groups, 2016 and 2017

	2016		2017		Annual rate of change in number of posts	Annual rate of change in salary expenses
	Number of employee posts	Salaries and related expenses (NIS million)	Number of employee posts	Salaries and related expenses (NIS million)		
Active employees in Israel, Annual wage levels (NIS thousand)						
Up to 60	74	2	89	3	20.3	41.5
60–120	5,251	494	4,186	419	-20.3	-15.2
120–240	15,532	2,895	15,093	2,909	-2.8	0.5
240–360	11,735	3,449	11,471	3,335	-2.2	-3.3
360–600	7,808	3,667	8,541	3,830	9.4	4.4
600–1,000	1,850	1,324	1,924	1,496	4.0	12.9
More than 1,000	300	453	265	409	-11.8	-9.7
Total salary and related expenses attributed to active employees in Israel	42,550	12,284	41,569	12,400	-2.3	0.9
<i>of which</i> : Expenses for manpower employees, annual wage levels (NIS thousand)						
Up to 120	2,183	709	2,164	867	-0.9	22.2
More than 120	616	63	543	60	-11.9	-4.4
Salary and related expenses not attributed to active employees in Israel	1,567	647	1,621	807	3.5	24.7
		4,112		4,330		
Bank employees at offices abroad	2,178	1,376	1,983	1,266	-9.0	-8.0
Wage expenses capitalized to assets	-953	-424	-1,014	-564	6.3	32.9
Total	43,775	17,348	42,538	17,434	-2.8	0.5

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

Table 1.9
Distribution of capital and capital ratios at the five banking groups^a, December 2016 and December 2017

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		The five groups	
	Dec 2016	Dec 2017	Dec 2016	Dec 2017	Dec 2016	Dec 2017	Dec 2016	Dec 2017	Dec 2016	Dec 2017	Dec 2016	Dec 2017
Equity ^b	31,714	33,553	34,225	36,004	14,936	16,068	13,324	14,327	7,604	8,046	101,803	107,998
Common Equity Tier 1 capital ^c	32,586	34,653	35,045	36,582	15,036	16,003	13,318	14,333	7,684	8,033	103,669	109,604
Tier 1 capital ^c	32,586	34,653	36,510	37,803	16,104	16,893	13,318	14,333	7,684	8,033	106,202	111,715
Tier 2 capital ^c	11,850	10,888	11,609	9,728	5,020	5,395	4,888	5,251	2,819	2,749	36,186	34,011
Total capital base	44,436	45,541	48,119	47,531	21,124	22,288	18,206	19,584	10,503	10,782	142,388	145,726
Total balance sheet	438,603	450,838	448,105	454,424	219,577	221,221	230,455	239,572	127,907	135,717	1,464,647	1,501,772
Credit risk	266,534	277,344	290,139	295,986	138,335	144,292	122,605	130,525	69,262	70,445	886,875	918,592
Market risks	4,788	4,464	4,866	5,114	2,483	3,443	1,184	1,605	748	725	14,069	15,351
Operational risk	20,843	21,484	23,374	23,672	12,072	12,335	8,113	8,394	6,168	6,201	70,570	72,086
Total risk-weighted assets	292,165	303,292	318,379	324,772	152,890	160,070	131,902	140,524	76,178	77,371	971,514	1,006,029
	(Percent)											
Common Equity Tier 1 capital ratio	11.2	11.4	11.0	11.3	9.8	10.0	10.1	10.2	10.1	10.4	10.7	10.9
Tier 1 capital ratio	11.2	11.4	11.5	11.6	10.5	10.6	10.1	10.2	10.1	10.4	10.9	11.1
Tier 2 capital ratio	4.1	3.6	3.6	3.0	3.3	3.4	3.7	3.7	3.7	3.6	3.7	3.4
Total capital adequacy ratio	15.2	15.0	15.1	14.6	13.8	13.9	13.8	13.9	13.8	13.9	14.7	14.5

^a The banking corporations allocate capital in accordance with Basel III rules, as per the transition directives.

^b Including minority interest in accordance with the groups' balance sheets.

^c After deductions.

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

Table 1.10
Distribution of the holdings of bank shares and dividends distributed, Israeli banks^a, 2017–18

	Rate of holdings by	Rate of holdings by the	Dividends distributed in	Dividends distributed	Dividends as a share of
	parties at interest, April 2018	public ^b , April 2018	2017	net of holdings by parties at interest	net profit
	(percent)	(percent)	(NIS million)	(NIS million)	(percent)
Hapoalim	20.1	79.9	861.0	688.3	32.4
Leumi	5.9	94.1	627.5	590.7	19.8
Mizrahi-Tefahot	44.2	55.8	334.0	186.3	24.8
Discount	0.1	99.9			
First International	48.4	51.6	310.0	160.0	45.7
Union	74.8	25.2			
Jerusalem	86.6	13.4	7.1	1.0	19.2
Total banking system	20.4	79.9	2,139.6	1,626.2	23.0

^a By bank.

^b Including holdings through institutional investors.

SOURCE: Based on the "Maya" system and reports to the Banking Supervision Department.

Table 1.11
Main capital indices of the five banking groups, December 2009 to December 2017

(percent)							
	Year	Leumi	Hapoalim	Discount	Mizrahi- Tefahot	First Int'l	The five groups
Common Equity Tier 1 capital ratio ^a	2012	8.55	8.87	8.57	8.55	9.65	8.74
	2013	9.32	9.30	9.30	9.01	9.92	9.32
	01/01/2014 ^b	9.09	9.08	8.92	8.73	9.98	9.08
	2014	9.09	9.29	9.38	9.05	9.69	9.24
	2015	9.58	9.63	9.51	9.50	9.81	9.60
	2016	11.15	11.01	9.83	10.10	10.09	10.67
	2017	11.43	11.26	10.00	10.20	10.38	10.89
The ratio between credit risk assets and total exposure to credit ^c	2009 ^d	64.17	67.88	60.56	67.15	54.44	64.12
	2009 ^e	67.01	69.16	63.89	59.59	55.50	65.22
	2010	68.30	68.62	67.17	58.66	61.00	66.39
	2011	67.67	67.33	60.45	58.26	60.02	64.59
	2012	65.67	64.83	61.27	58.03	57.69	63.05
	2013	64.56	64.98	59.09	56.12	55.66	61.91
	2014	66.36	67.72	60.07	55.82	56.21	63.44
	2015 ^b	62.98	65.64	59.77	54.86	53.73	61.38
	2016	57.34	58.97	60.24	50.72	53.06	56.89
2017	57.07	58.35	60.85	51.80	50.78	56.66	
Leverage ratio ^f	30/06/2015	6.54	7.16	6.60	5.24	5.47	6.45
	2015	6.27	7.10	6.55	5.32	5.43	6.36
	2016	6.77	7.25	6.60	5.27	5.52	6.60
	2017	6.94	7.37	6.81	5.48	5.50	6.70
Equity to total balance-sheet assets	2012	6.71	7.19	6.04	5.70	6.41	6.59
	2013	7.07	7.65	6.25	5.75	6.33	6.86
	2014	6.58	7.65	6.27	5.69	5.98	6.68
	2015	6.99	7.70	6.64	5.94	5.85	6.90
	2016	7.23	7.64	6.80	5.78	5.94	6.95
	2017	7.44	7.92	7.26	5.98	5.93	7.19
Impaired loans and unimpaired loans 90 or more days past due, net, to total equity	2013	11.32	17.54	17.94	10.26	6.35	13.87
	2014	6.67	9.78	9.49	3.88	2.43	7.49
	2015	2.38	5.36	9.56	3.46	2.37	4.58
	2016	3.67	2.14	8.30	1.51	-0.64	3.23
	2017	1.68	-0.74	2.65	2.62	-0.82	0.95

^a Until December 31, 2013, the banking corporations presented the Core Tier 1 capital ratio, in accordance with Basel II principles. From January 1, 2014, they present the Common Equity Tier 1 capital ratio, in accordance with Basel III principles.

^b As of this date, the ratio is calculated in accordance with Basel III rules as per the transition directives.

^c Calculated as the ratio between credit risk assets and the value of exposure after conversion to credit.

^d The ratio is calculated in accordance with Basel I rules.

^e As of this date, the ratio is calculated in accordance with Basel II rules.

^f Calculated as the ratio between Common Equity Tier 1 capital and Total exposures, in accordance with the Basel III rules.

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

Table 1.12
Balance sheet of the total Israeli banking system^a, 2015–17

	In current prices			Rate of change during 2016	Rate of change during 2017	Distribution		
	2015	2016	2017			2015	2016	2017
	(NIS million)			(Percent)		(Percent)		
Assets								
Cash and deposits at banks	226,145	263,974	290,372	16.7	10.0	15.6	17.3	18.5
<i>Of which:</i>								
Cash ^b	206,158	243,540	267,200	18.1	9.7	91.2	92.3	92.0
Deposits at commercial banks	19,987	20,434	23,168	2.2	13.4	8.8	7.7	8.0
Securities	212,286	227,381	204,856	7.1	-9.9	14.6	14.9	13.1
<i>Of which:</i>								
Securities provided as collateral to lenders	19,400	17,165	16,885	-11.5	-1.6	9.1	7.5	8.2
At fair value	171,589	200,622	182,613	16.9	-9.0	80.8	88.2	89.1
Securities borrowed or bought under reverse repurchase agreements	2,879	3,058	4,504	6.2	47.3	0.2	0.2	0.3
Credit to the public	950,058	975,635	1,007,674	2.7	3.3	65.4	63.8	64.4
Allowance for credit losses	12,792	12,530	11,988	-2.0	-4.3	0.9	0.8	0.8
Net credit to the public	937,266	963,105	995,687	2.8	3.4	64.5	63.0	63.6
<i>Of which:</i>								
Unindexed local currency	622,559	669,220	713,885	7.5	6.7	66.4	69.5	71.7
Local currency indexed to the CPI	185,454	174,734	171,163	-5.8	-2.0	19.8	18.1	17.2
Foreign-currency indexed and denominated	127,806	117,720	108,888	-7.9	-7.5	13.6	12.2	10.9
<i>Of which:</i> In dollars	97,570	93,466	87,204	-4.2	-6.7	76.3	79.4	80.1
Nonmonetary items	1,448	1,432	1,750	-1.1	22.2	0.2	0.1	0.2
Credit to governments	4,517	4,925	5,631	9.0	14.3	0.3	0.3	0.4
Investments in subsidiary and affiliated companies	1,685	1,759	1,760	4.4	0.1	0.1	0.1	0.1
Premises and equipment	11,991	12,038	11,699	0.4	-2.8	0.8	0.8	0.7
Intangible assets	520	508	498	-2.4	-1.9	0.0	0.0	0.0
Assets in respect of derivative instruments	32,860	31,262	29,691	-4.9	-5.0	2.3	2.0	1.9
Other assets	22,074	21,314	21,216	-3.4	-0.5	1.5	1.4	1.4
Total assets	1,452,224	1,529,324	1,565,913	5.3	2.4	100	100	100
Liabilities and equity								
Deposits of the public	1,122,280	1,190,546	1,229,257	6.1	3.3	77.3	77.8	78.5
<i>Of which:</i>								
Unindexed local currency	713,887	786,137	850,041	10.1	8.1	63.6	66.0	69.2
Local currency indexed to the CPI	74,191	64,552	61,658	-13.0	-4.5	6.6	5.4	5.0
Foreign-currency indexed and denominated	332,526	338,083	315,547	1.7	-6.7	29.6	28.4	25.7
<i>Of which:</i> In dollars	264,925	270,817	260,782	2.2	-3.7	79.7	80.1	82.6
Deposits from banks	16,357	15,926	17,907	-2.6	12.4	1.1	1.0	1.1
Deposits from governments	1,981	2,169	2,052	9.5	-5.4	0.1	0.1	0.1
Securities lent or sold under repurchase agreements	5,241	5,156	2,902	-1.6	-43.7	0.4	0.3	0.2
Bonds and subordinated notes	102,491	105,542	95,341	3.0	-9.7	7.1	6.9	6.1
Liabilities in respect of derivative instruments	34,160	32,296	29,949	-5.5	-7.3	2.4	2.1	1.9
Other liabilities	69,926	71,804	76,495	2.7	6.5	4.8	4.7	4.9
<i>Of which:</i> Allowance for credit losses in respect of off-balance-sheet credit instruments	1,495	1,543	1,458	3.2	-5.5	2.1	2.1	1.9
Total liabilities	1,352,437	1,423,439	1,453,903	5.2	2.1	93.1	93.1	92.8
Minority interest	1,705	1,862	1,933	9.2	3.8	0.1	0.1	0.1
Shareholders equity	98,082	104,023	110,077	6.1	5.8	6.8	6.8	7.0
Total equity	99,787	105,885	112,010	6.1	5.8	6.9	6.9	7.2
Total liabilities and equity	1,452,224	1,529,324	1,565,913	5.3	2.4	100	100	100

^a On a consolidated basis. Includes the five banking groups (Leumi, Hapoalim, Discount, First International and Mizrahi-Tefahot), and the three independent banks (Union Bank, Bank of Jerusalem and Dexia Bank).

^b Including deposits at the Bank of Israel.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.13
Securities portfolio of the total banking system, December 2016 and December 2017

	Bank Leumi				Bank Hapoalim				Bank Discount			
	December 2016		December 2017		December 2016		December 2017		December 2016		December 2017	
	Book value	Distribution	Book value	Distribution	Book value	Distribution	Book value	Distribution	Book value	Distribution	Book value	Distribution
	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)
Of Israeli government	40,500	52.5	39,872	51.6	50,844	71.2	40,597	62.0	22,835	58.8	20,736	63.4
Of foreign governments	13,907	18.0	10,837	14.0	8,256	11.6	13,168	20.1	1,054	2.7	588	1.8
Of Israeli financial institutions	182	0.2	101	0.1	577	0.8	496	0.8	155	0.4	98	0.3
Of foreign financial institutions securities ^a	7,564	9.8	9,795	12.7	5,739	8.0	6,327	9.7	1,228	3.2	615	1.9
Other - Israeli	10,029	13.0	9,150	11.8	-	-	-	-	8,523	22.0	6,845	20.9
Other - foreign	428	0.6	181	0.2	916	1.3	402	0.6	407	1.0	232	0.7
Stocks	2,648	3.4	3,129	4.0	2,861	4.0	2,226	3.4	3,640	9.4	2,701	8.3
Total securities, all types	77,201	100	77,299	100	71,449	100	65,442	100	38,818	100	32,703	100
	Total system ^b											
	Mizrahi-Tefahot				First International				Total system ^b			
	December 2016		December 2017		December 2016		December 2017		December 2016		December 2017	
	Book value	Distribution	Book value	Distribution	Book value	Distribution	Book value	Distribution	Book value	Distribution	Book value	Distribution
	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)
Of Israeli government	8,586	83.7	7,612	75.1	9,459	60.0	5,603	54.7	143,491	63.1	120,463	58.8
Of foreign governments	1,538	15.0	2,406	23.7	2,160	13.7	1,932	18.9	27,628	12.2	30,150	14.7
Of Israeli financial institutions	-	-	-	-	324	2.1	138	1.3	1,745	0.8	1,172	0.6
Of foreign financial institutions securities ^a	19	0.2	-	-	1,808	11.5	539	5.3	16,435	7.2	17,422	8.5
Other - Israeli	-	-	-	-	409	2.6	300	2.9	19,041	8.4	16,380	8.0
Other - foreign	19	0.2	16	0.2	446	2.8	874	8.5	9,723	4.3	9,127	4.5
Stocks	100	1.0	99	1.0	178	1.1	196	1.9	5,635	2.5	7,853	3.8
Total securities, all types	10,262	100	10,133	100	15,776	100	10,238	100	227,381	100	204,856	100

^a Mortgage-backed securities (MBS) issued by US government agencies (FNMA, FHLMC and GNMA) are included in the "Asset-backed or mortgage-backed" item whether there is a government guarantee for them or not.

^b Including the five banking groups as well as Union Bank, Bank of Jerusalem, and Dexia Israeli Bank.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.14
Transactions in off-balance-sheet financial instruments where the par value reflects credit risk, total banking system^a, 2016 and 2017

	End of year balance		Rate of change	Distribution	
	2016	2017		2016	2017
	(NIS million)			(percent)	
Documentary credit	4,071	4,647	14.1	0.9	1.0
Credit guarantees	18,511	16,703	-9.8	3.9	3.5
Guarantees for home purchases	67,449	67,137	-0.5	14.1	13.9
Other guarantees and liabilities	61,618	63,441	3.0	12.9	13.1
Unutilized credit card facilities	97,982	101,123	3.2	20.5	20.9
Unutilized credit facilities to the public	89,205	88,293	-1.0	18.7	18.3
Irrevocable commitments to provide credit that has not yet been extended	92,537	91,572	-1.0	19.4	19.0
Commitments to issue guarantees	46,333	49,996	7.9	9.7	10.4
Total	477,705	482,911	1.1	100	100

^a The five banking groups, Union Bank, Bank of Jerusalem and Dexia Israel Bank.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.15
Distribution of the balance of derivative instruments, Israeli banking system^a, 2017 compared with 2016
 (NIS million)^b

	By type of instrument		Rate of change compared with 2016	By type of transaction		Rate of change compared with 2016	
	2016	2017		2016	2017		
Interest rate contracts	1,089,988	1,165,690	6.9	Hedging derivatives ^d	27,338	20,942	-23.4
Exchange rate contracts	885,348	821,570	-7.2	ALM derivatives ^{d,e}	1,984,753	1,965,991	-0.9
Other contracts ^c	311,974	433,058	38.8	Other derivatives ^f	275,220	433,385	57.5
Total	2,287,311	2,420,318	5.8	Total	2,287,311	2,420,318	5.8

^a Includes the five banking groups and the independent banks (Union, Jerusalem and Dexia).

^b In notional amounts, at current prices.

^c Contracts in respect of shares, commodity contracts and other contracts.

^d Excluding credit derivatives.

^e Derivatives constituting part of the bank's assets and liabilities, which were not designated for hedging purposes.

^f Including credit derivatives and currency swaps.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.16
Outstanding credit to the public, by principal industries^a, the five banking groups, 2016 and 2017

	Total balance of credit risk ^b						Balance-sheet credit ^c (debits)								
	Balance			Change in credit			Balance			Distribution of credit to the public			Change in credit		
	2016	2017	(NIS million)	2016	2017	(percent)	2016	2017	(NIS million)	2016	2017	(percent)	2016	2017	(percent)
Borrower activity in Israel	1,230,085	1,277,062		89.1	90.1	3.8	854,670	891,194		91.4	92.0	4.3			
Business sector	655,259	681,256		47.4	48.1	4.0	399,781	418,498		42.7	43.2	4.7			
Agriculture	7,772	7,636		0.6	0.5	-1.7	6,044	6,137		0.6	0.6	1.5			
Manufacturing	88,776	89,042		6.4	6.3	0.3	51,104	51,457		5.5	5.3	0.7			
Mining and quarrying	5,543	5,549		0.4	0.4	0.1	3,405	3,560		0.4	0.4	4.6			
Construction and real estate	227,462	242,927		16.5	17.1	6.8	115,990	128,199		12.4	13.2	10.5			
<i>Of which:</i> Construction	159,666	174,383		11.6	12.3	9.2	56,864	69,161		6.1	7.1	21.6			
Real estate	67,796	68,544		4.9	4.8	1.1	59,126	59,038		6.3	6.1	-0.1			
Electricity and water	19,869	19,326		1.4	1.4	-2.7	10,858	10,448		1.2	1.1	-3.8			
Commerce	104,325	102,792		7.6	7.3	-1.5	80,525	78,565		8.6	8.1	-2.4			
Tourism	17,292	18,812		1.3	1.3	8.8	14,946	16,192		1.6	1.7	8.3			
Transport and storage	24,910	26,030		1.8	1.8	4.5	19,860	21,085		2.1	2.2	6.2			
Communications and computer services	18,205	17,405		1.3	1.2	-4.4	11,788	11,448		1.3	1.2	-2.9			
Financial services	83,068	88,544		6.0	6.2	6.6	42,712	44,367		4.6	4.6	3.9			
Other business services	34,544	38,137		2.5	2.7	10.4	24,192	27,338		2.6	2.8	13.0			
Public and community services	23,493	25,056		1.7	1.8	6.7	18,357	19,702		2.0	2.0	7.3			
Private individuals	574,826	595,806		41.6	42.1	3.6	454,889	472,696		48.6	48.8	3.9			
<i>Of which:</i> Housing loans	314,715	327,511		22.8	23.1	4.1	301,892	313,875		32.3	32.4	4.0			
Nonhousing loans	260,111	268,295		18.8	18.9	3.1	152,997	158,821		16.4	16.4	3.8			
Borrowers' activity abroad	150,955	139,686		10.9	9.9	-7.5	80,722	77,215		8.6	8.0	-4.3			
Total	1,381,040	1,416,748		100.0	100.0	2.6	935,392	968,409		100.0	100.0	3.5			

^a The industries are classified differently than the supervisory activity segments.

^b Includes balance-sheet and non-balance-sheet credit risk.

^c Includes credit to the public, excludes bonds and securities borrowed or purchased under reverse repurchase agreements.

SOURCE: Banking Supervision Department based on published financial statements.

CHAPTER 1: DEVELOPMENTS IN THE BANKING SYSTEM

Table 1.17
Supervisory Activity Segments^{a,b} - Balance-Sheet Balances and Performance Indices, the Five Banking Groups, Activity in Israel, 2017 and 2016

	Household ^c					Business ^d				Total activity in Israel ^e
	Housing	Credit cards	Other consumer	Total consumer	Total household	Small and micro businesses	Medium businesses	Large businesses	Total business	
2017										
(NIS million)										
Outstanding credit to the end of the reporting period	307,643	47,476	113,212	160,688	468,331	185,777	77,199	167,670	430,646	905,888
Outstanding impaired debt and debt more than 90 days past due	2,863	71	1,355	1,426	4,289	3,198	1,038	2,611	6,847	11,435
Balance of deposits to the end of the reporting period		87	520,422	520,509	520,509	159,962	73,574	145,112	378,648	1,106,033
Balance of risk assets to the end of the reporting period	179,332	43,269	107,478	150,747	330,079	193,685	97,756	201,905	493,346	928,610
Net profit	1,253	515	-852	-337	916	2,014	1,244	2,892	6,150	9,055
(percent)										
Return on assets (net profit divided by the average balance of assets)	0.42	1.13	-0.76	-0.21	0.20	1.14	1.69	1.81	1.50	0.67
Net interest margin (net interest income divided by the average balance of assets and liabilities)	1.99	3.61	2.25	2.35	2.24	4.10	2.72	2.26	3.14	1.97
Credit activity divided by the average balance of credit	0.98	2.07	4.95	4.12	2.06	3.73	2.43	2.04	2.84	2.99
Deposit activity divided by the average of deposits			0.30	0.30	0.30	0.28	0.27	0.17	0.24	-0.06
Average cost (operational expenses divided by average balance of assets and liabilities)	0.87	10.75	3.49	4.04	3.07	3.50	1.85	1.14	2.29	2.09
Operating loss divided by the average balance of assets and liabilities	0.68	-1.17	2.32	2.06	1.64	1.62	0.53	-0.11	0.75	0.79
Operating efficiency ratio (operating costs divided by total gross income)	40.09	69.21	102.13	93.19	83.55	58.53	45.91	32.54	48.98	63.79
Loan loss provisions divided by the average balance of assets and liabilities	0.01	1.13	0.33	0.39	0.28	0.64	-0.49	-0.54	-0.02	0.09
Loan loss provisions divided by the credit balance to the end of the period	0.00	0.62	0.92	0.83	0.29	0.60	-0.47	-0.50	-0.02	0.13
Net profit divided by the average balance of assets and liabilities	0.83	1.99	-0.27	-0.10	0.19	1.17	1.70	1.86	1.53	0.69
2016										
(NIS million)										
Outstanding credit to the end of the reporting period	297,051	43,233	110,470	153,703	450,754	174,258	74,704	160,721	409,683	867,368
Outstanding impaired debt and debt more than 90 days past due	2,649	54	1,350	1,404	4,053	3,167	1,346	5,035	9,548	14,198
Balance of deposits to the end of the reporting period		87	518,392	518,479	518,479	149,588	70,359	143,217	363,164	1,052,354
Balance of risk assets to the end of the reporting period	174,101	39,166	109,836	149,002	323,103	173,187	92,146	196,979	462,312	887,789
Net profit	1,001	567	-1,197	-630	371	1,709	973	2,971	5,653	8,165
(percent)										
Return on assets (net profit divided by the average balance of assets)	0.35	1.35	-1.08	-0.41	0.08	1.01	1.37	1.80	1.39	0.63
Net interest margin (net interest income divided by the average balance of assets and liabilities)	1.75	3.39	2.18	2.26	2.11	3.94	2.61	2.23	3.01	1.90
Credit activity divided by the average balance of credit	0.87	1.96	4.90	4.09	1.97	3.54	2.41	1.97	2.70	2.88
Deposit activity divided by the average of deposits			0.27	0.27	0.27	0.20	0.18	0.13	0.17	-0.08
Average cost (operational expenses divided by average balance of assets and liabilities)	0.83	10.58	3.57	4.08	3.10	3.76	1.97	1.18	2.39	2.15
Operating loss divided by the average balance of assets and liabilities	0.63	-1.39	2.39	2.12	1.67	1.78	0.54	-0.11	0.79	0.74
Operating efficiency ratio (operating costs divided by total gross income)	42.62	68.88	106.25	96.51	87.56	63.44	48.78	33.51	51.83	64.89
Loan loss provisions divided by the average balance of assets and liabilities	0.01	0.70	0.34	0.36	0.26	0.40	-0.18	-0.70	-0.15	0.05
Loan loss provisions divided by the credit balance to the end of the period	0.01	0.39	0.95	0.79	0.27	0.37	-0.17	-0.68	-0.14	0.07
Net profit divided by the average balance of assets and liabilities	0.69	2.36	-0.39	-0.19	0.08	1.08	1.39	1.91	1.47	0.65

^a Beginning with the financial statement for the first quarter of 2016, the banks are required to prepare disclosures for the supervisory activity segments according to the new rules adapted to the new, uniform and comparable definitions set out by the Banking Supervision Department, which are mainly based on the classification of customers by their volume of activity. There are also additional requirements for separate disclosure for the institutional investors segment and for the financial management segment, as well as for disclosures of balance-sheet balances to the end of the reporting period (credit and deposits) and balances of impaired credit and nonimpaired credit 90 days past due. The implementation of the Directive had no material effect on the banks' financial statements, other than the manner of presentation and disclosure.

^b Activity in Israel only.

^c The household segment includes private banking.

^d Micro business - Volume of activity totaling less than NIS 10 million; Small business - Volume of activity totaling between NIS 10 million and NIS 50 million; Medium business - Volume of activity totaling between NIS 50 and NIS 250 million; Large business - Volume of activity totaling over NIS 250 million.

^e Including institutional entities, the financial management segment, and the "others" segment.

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

Table 1.18
Credit quality indices, by principle industry, the five banking groups, 2016 and 2017
 (percent)

	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Borrowers' activity in Israel	1.4	1.0	0.10	0.15	0.12	0.19	1.46	1.36	105.4	136.6		
Business Sector	2.7	1.8	-0.12	0.00	0.01	0.15	2.04	1.79	75.6	97.2		
Agriculture	2.1	1.5	0.33	0.03	0.10	-0.03	1.82	1.73	85.3	111.6		
Manufacturing	3.0	2.3	2.73	2.45	-0.43	0.07	2.73	2.45	89.8	106.1		
Mining and quarrying	4.6	0.7	2.58	0.84	-0.09	-1.26	2.58	0.84				
Construction and real estate	2.9	2.6	-0.74	-0.57	-0.35	-0.41	2.01	1.67	69.97	77.46		
<i>Of which</i> : Construction	3.0	2.2	-0.32	-0.23	-0.25	-0.17	2.35	1.87	78.1	85.9		
Real estate	2.7	2.1	-1.15	-0.98	-0.44	-0.69	1.68	1.44	61.4	67.4		
Electricity and water	2.5	2.7	0.12	0.48	0.06	0.11	1.18	1.59	46.4	58.0		
Commerce	1.9	1.5	0.81	0.74	0.72	1.09	2.69	2.43	138.4	158.0		
Tourism	3.5	3.0	-0.16	0.49	-0.16	0.41	1.07	1.08	30.7	36.5		
Transportation and storage	1.5	1.1	-0.11	0.45	-0.10	0.28	0.83	0.93	56.2	82.4		
Communications and computer services	11.2	6.2	0.21	2.55	0.92	3.15	3.81	3.35	34.1	54.5		
Financial services	3.1	0.9	-0.41	-0.94	-0.31	-0.75	1.53	1.23	48.8	137.5		
Other business services	0.9	0.8	0.74	0.61	0.43	0.50	1.54	1.51	174.3	197.6		
Public and community services	0.5	0.5	0.17	0.18	0.09	0.13	0.75	0.77	148.9	162.4		
Private individuals	0.2	0.3	0.28	0.29	0.22	0.23	0.96	0.98				
<i>Of which</i> : Housing loans	0.0	0.0	0.00	0.00	0.03	0.01	0.57	0.54				
Nonhousing loans	0.7	0.7	0.84	0.84	0.60	0.66	1.72	1.84				
Borrowers' activity abroad	1.84	1.81	0.09	0.06	0.23	0.25	0.23	0.25				

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.19
Indices of credit portfolio quality of the five banking groups, 2012–17

		(percent)					
	Year	Leumi	Hapoalim	Discount	Mizrahi- Tefahot	First International	The five groups
Loan loss provision as a share of total balance-sheet credit to the public ^a	2012	0.50	0.39	0.61	0.21	0.20	0.41
	2013	0.11	0.34	0.49	0.21	0.14	0.25
	2014	0.18	0.16	0.13	0.12	0.13	0.15
	2015	0.08	0.17	0.15	0.13	0.02	0.12
	2016	-0.05	0.10	0.33	0.12	0.10	0.10
	2017	0.06	0.11	0.38	0.11	0.15	0.14
Net write-offs as a share of total balance-sheet credit to the public	2013	0.21	0.38	0.42	0.40	0.13	0.32
	2014	0.12	0.06	0.24	0.10	0.05	0.11
	2015	0.20	0.08	0.12	0.09	0.14	0.13
	2016	0.02	0.20	0.27	0.09	0.09	0.13
	2017	0.14	0.23	0.39	0.09	0.17	0.20
Allowance for credit losses as a share of total balance-sheet credit to the public	2012	1.68	1.61	1.74	1.22	1.22	1.56
	2013	1.59	1.54	1.81	0.94	1.19	1.46
	2014	1.55	1.56	1.68	0.90	1.25	1.44
	2015	1.57	1.56	1.59	0.87	1.12	1.41
	2016	1.32	1.49	1.50	0.83	1.08	1.29
	2017	1.20	1.36	1.40	0.81	1.03	1.19
Problematic loans as a share of total balance-sheet credit to the public	2014	3.96	4.46	4.84	1.38	3.45	3.75
	2015	3.14	3.43	3.54	1.38	2.39	2.91
	2016	2.90	2.77	3.55	1.44	2.29	2.64
	2017	2.48	2.36	2.80	1.39	1.78	2.23
Impaired loans and non-impaired loans 90 days or more past due as a share of total balance-sheet credit to the public	2012	3.54	3.79	5.11	2.55	2.11	3.57
	2013	2.81	3.54	3.71	1.70	1.83	2.89
	2014	2.23	2.70	2.69	1.20	1.50	2.20
	2015	1.83	2.19	2.60	1.14	1.36	1.89
	2016	1.75	1.76	2.37	0.95	1.02	1.64
	2017	1.41	1.27	1.68	1.02	0.95	1.30
Allowance for credit losses as a share of impaired loans and non-impaired loans more than 90 days past due	2012	47.3	42.5	34.1	47.9	57.7	43.6
	2013	56.4	43.6	48.7	55.4	65.0	50.5
	2014	69.6	57.8	62.4	75.4	83.7	65.2
	2015	85.7	71.3	61.1	76.5	82.6	74.6
	2016	75.0	84.9	63.4	87.7	106.1	78.6
	2017	85.3	107.5	83.2	79.8	108.5	91.8

^a Until December 2010, net credit to the public was used. From 2011, gross credit to the public is used.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.20
Indices of concentration of the portfolio of credit to the public^a of the five
banking groups, 2011–17

	Year	Leumi	Hapoalim	Discount	Mizrahi- Tefahot	First International	The five groups
Concentration by principal industries							
Herfindahl-Hirschman Index (HH) of the concentration of the aggregate credit portfolio excluding credit to individuals ^{b,c}	2011	0.09	0.08	0.08	0.04	0.06	0.07
	2012	0.09	0.08	0.08	0.04	0.05	0.07
	2013	0.08	0.07	0.07	0.03	0.06	0.07
	2014	0.08	0.08	0.07	0.03	0.06	0.07
	2015	0.08	0.07	0.07	0.02	0.05	0.06
	2016	0.05	0.05	0.04	0.02	0.05	0.04
	2017	0.05	0.05	0.05	0.02	0.04	0.04
Herfindahl-Hirschman Index (HH) of business credit portfolio concentration ^{d,e}	2011	0.21	0.17	0.17	0.19	0.17	0.18
	2012	0.21	0.17	0.17	0.21	0.17	0.18
	2013	0.20	0.17	0.17	0.23	0.18	0.18
	2014	0.21	0.17	0.18	0.24	0.18	0.19
	2015	0.22	0.17	0.17	0.23	0.18	0.19
	2016	0.21	0.17	0.18	0.23	0.18	0.19
	2017	0.22	0.18	0.18	0.25	0.18	0.19
Credit to individuals as a share of total credit ^f (percent)	2011	31.5	30.8	29.2	57.0	41.1	35.2
	2012	33.0	32.0	29.7	59.0	42.9	36.7
	2013	35.4	32.6	32.3	60.9	42.8	38.5
	2014	36.5	32.3	32.5	61.6	43.1	38.9
	2015	37.9	33.5	33.6	64.5	45.0	40.5
	2016	30.4	28.6	28.0	62.3	43.0	35.0
	2017	29.7	29.4	30.1	63.0	45.1	35.7
Credit for borrowers' activity abroad as a share of total credit portfolio (percent)	2011	15.6	11.0	26.8	1.9	3.0	13.0
	2012	15.9	10.6	25.2	2.7	2.3	12.6
	2013	15.3	10.2	22.2	2.9	1.8	11.7
	2014	15.0	11.0	23.2	2.4	1.9	11.9
	2015	15.0	11.2	22.4	2.5	2.1	11.8
	2016	15.1	8.9	20.9	7.0	1.5	11.6
	2017	14.3	7.8	17.6	6.6	1.8	10.5
Concentration by borrower size							
Gini Index ^g of credit diversification by borrower size	2011	0.90	0.92	0.91	0.81	0.85	0.90
	2012	0.90	0.92	0.92	0.81	0.85	0.90
	2013	0.88	0.92	0.91	0.81	0.85	0.90
	2014	0.87	0.92	0.90	0.80	0.84	0.90
	2015	0.89	0.91	0.90	0.79	0.84	0.89
	2016	0.88	0.90	0.90	0.79	0.84	0.89
	2017	0.88	0.91	0.90	0.79	0.83	0.89
Credit granted to borrowers whose indebtedness exceeds NIS 40 million as a share of total credit (percent)	2011	41.9	48.9	44.5	24.6	29.3	41.2
	2012	40.1	47.7	43.4	23.1	27.9	39.6
	2013	38.0	46.6	39.7	22.7	28.2	38.0
	2014	36.6	46.4	38.8	21.0	27.3	37.1
	2015	35.2	44.7	38.6	19.4	27.6	35.8
	2016	33.7	43.3	37.9	18.4	27.4	34.2
	2017	34.3	40.4	35.9	17.8	25.3	32.9
Credit granted to borrowers whose outstanding indebtedness exceeds 5% of the group's equity ^h as a share of the group's total credit (percent)	2011	5.6	8.4	13.0	5.2	9.1	
	2012	5.2	7.8	10.9	4.3	7.5	
	2013	5.7	6.6	9.3	3.9	7.1	
	2014	3.8	5.9	8.6	3.1	4.8	
	2015	1.8	3.8	7.9	2.1	5.7	
	2016	1.0	4.3	7.6	1.6	5.2	
	2017	0.6	2.4	6.4	0.7	4.1	

^a On a balance-sheet and off-balance-sheet basis.

^b This index is the sum of the squares of the weights of credit in a specific industry (excluding credit granted to individuals) in total credit to the public (including credit granted to individuals). The higher the index, the higher the concentration.

^c The weighting of the principal industries in this index includes the borrowers' activity both in Israel and abroad.

^d This index is the sum of the squares of the weights of credit in a specific industry (excluding credit granted to individuals) in total credit to the public (excluding credit granted to private individuals).

^e The weighting of the principal industries in this index includes the borrowers' activity in Israel only.

^f Refers only to credit issued in Israel.

^g The Gini Index expresses inequality in the distribution of credit by borrowers. The higher the index, the greater the inequality.

^h Plus minority interest.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.21
Exposure to foreign countries, the five banking groups, December 2017

		Balance sheet exposure abroad (NIS million)							
		To			Net balance sheet exposure of				
		To governments ^a	To banks	To others	overseas offices ^b of the banking corporation to local residents ^c	Total balance sheet exposure	Total balance sheet exposure to equity (%)	Total balance sheet exposure to assets (%)	Total off-balance-sheet exposure ^d
US		24,585	6,639	16,188	35,499	82,911	76.8	5.5	21,097
UK		254	10,557	6,939	4,346	22,096	20.5	1.5	10,934
Other countries		4,991	24,033	21,704	5,585	56,313	52.1	3.7	39,225
Total exposure to foreign countries		29,830	41,229	44,831	45,430	161,320	149.4	10.7	71,256
<i>Of which:</i>	Total exposure to LDCs ^e	373	1,852	2,835	1,011	6,071	5.6	0.4	3,022
	Total exposure to Portugal, Ireland, Greece, Italy, and Spain	470	183	399	-	1,052	1.0	0.1	848

^a Governments, official bodies, and central banks.

^b The banking corporation's offices in a foreign country.

^c Net balance sheet exposure after deduction of local liabilities.

^d Credit risk in off-balance-sheet financial instruments, as calculated for the borrower indebtedness limit.

^e Less developed countries - the countries classified by the World Bank as having low or medium revenue.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.22
Current credit exposure to foreign financial institutions^{a,b}, the five banking groups, December 2017
 (NIS million)

Credit rating ^c	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		The five groups	
	of which:		of which:		of which:		of which:		of which:		of which:	
	Balance-sheet	credit risk	Balance-sheet	credit risk	Balance-sheet	credit risk	Balance-sheet	credit risk	Balance-sheet	credit risk	Balance-sheet	credit risk
AAA to AA-	15,896	14,983	14,662	3,755	836	589	6,327	746	745	742	38,466	20,815
A+ to A-	4,360	3,747	17,628	13,899	3,975	3,581	575	306	1,158	1,122	27,696	22,655
BBB+ to BBB-	579	281	1,764	1,476	242	234	73	73	36	26	2,694	2,090
BB+ to B-	21	10	149	80	50	5	20	0	111	111	351	206
Below B-	32	14	-	-	0	0	-	0	0	0	32	14
Unrated	397	396	350	285	102	50	2	2	3	-	854	733
Total credit exposure to foreign financial institutions	21,285	19,431	34,553	19,495	5,205	4,459	6,997	1,127	2,053	2,001	70,093	46,513
Balance of problematic debts	0	0	0	0	32	32	0	0	0	0	32	32
Exposure as a share of assets (percent)	63	58	96	54	32	28	49	8	26	25	65	43

^a Foreign financial institutions are: investment banks, broker/dealers, insurance companies, institutions, and entities controlled by those institutions. Credit exposure does not include exposure to financial institutions that have clear and full government guarantees, and does not include investments in asset backed securities.

^b Balance sheet credit risk: deposits in banks, credit to the public, fixed income investments, securities borrowed or bought in reverse repurchase agreements, and other assets in respect of instruments. Off-balance-sheet credit risk: primarily guarantees and commitments to grant credit, including third-party indebtedness guarantees.

^c External credit rating is based on ratings assigned by the Fitch, S&P, and Moody's credit rating agencies.

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.23
Exposure to changes in interest rates, the five banking groups, December 2016 and December 2017
(NIS million)

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		The five groups	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Unindexed segment												
Net position in the segment ^a	22,971	25,879	24,668	26,354	4,128	6,622	5,323	1,492	3,541	5,283	60,631	65,630
Change in fair value of the net position in the segment as a result of an interest rate change ^b												
1 percentage point increase	-397	-1,060	-881	-990	-273	-390	-302	121	-339	-194	-2,192	-2,513
1 percentage point decrease	289	1,033	971	1,148	587	811	347	-71	379	289	2,573	3,210
Change in fair value of the net position in the segment as a percentage of the net fair value of the bank's total equity												
Interest rate increase	-3.4	-8.5	-3.2	-3.2	-2.5	-3.0	-3.4	1.2	-7.7	-3.6	-3.4	-3.5
Interest rate decrease	2.5	8.3	3.5	3.7	5.3	6.2	3.9	-0.7	8.6	5.4	4.0	4.4
CPI-indexed segment												
Net position in the segment ^a	-8,955	-10,414	3,697	5,083	3,812	3,184	3,324	8,762	771	13	2,649	6,628
Change in fair value of the net position in the segment as a result of an interest rate change ^b												
1 percentage point increase	1,592	1,724	-10	-255	-239	-200	709	21	-66	-33	1,986	1,257
1 percentage point decrease	-2,095	-2,196	27	290	296	257	-114	-23	76	30	-1,810	-1,642
Change in fair value of the net position in the segment as a percentage of the net fair value of the bank's total equity												
Interest rate increase	13.5	13.8	0.0	-0.8	-2.2	-1.5	8.0	0.2	-1.5	-0.6	3.1	1.7
Interest rate decrease	-17.8	-17.6	0.1	0.9	2.7	2.0	-1.3	-0.2	1.7	0.6	-2.8	-2.3
Foreign currency segment^c												
Net position in the segment ^a	-2,239	-2,994	-756	-110	3,079	3,359	215	4	107	90	406	349
Change in fair value of the net position in the segment as a result of an interest rate change ^b												
1 percentage point increase	-582	-498	-398	-418	-451	-434	-448	-104	-48	-46	-1,927	-1,500
1 percentage point decrease	415	524	409	448	357	356	451	115	43	20	1,675	1,463
Change in fair value of the net position in the segment as a percentage of the net fair value of the bank's total equity												
Interest rate increase	-4.9	-4.0	-1.4	-1.3	-4.1	-3.3	-5.1	-1.0	-1.1	-0.9	-3.0	-2.1
Interest rate decrease	3.5	4.2	1.5	1.4	3.2	2.7	5.1	1.1	1.0	0.4	2.6	2.0
Total												
Total fair value of bank's total equity ^d	11,777	12,471	27,609	31,327	11,019	13,165	8,862	10,258	4,419	5,386	63,686	72,607
Change in fair value of the bank's total equity as a result of an interest rate change ^b												
1 percentage point increase	613	166	-1,289	-1,663	-963	-1,024	-41	38	-453	-273	-2,133	-2,756
1 percentage point decrease	-1,391	-639	1,407	1,886	1,240	1,424	684	21	498	339	2,438	3,031
Change in fair value of the bank's total equity as a percentage of the net fair value of the bank's total equity												
Interest rate increase	5.2	1.3	-4.7	-5.3	-8.7	-7.8	-0.5	0.4	-10.3	-5.1	-3.3	-3.8
Interest rate decrease	-11.8	-5.1	5.1	6.0	11.3	10.8	7.7	0.2	11.3	6.3	3.8	4.2

^a The difference between the fair value of assets and the fair value of liabilities, including the effect of futures transactions in each indexing segment

^b Based on published financial statements - directors report: "The effect of potential changes in interest rates on the net fair value of financial instrument"

^c Including the foreign-currency-indexed segment

^d The total of net positions in the three indexing segments

SOURCE: Banking Supervision Department based on published financial statements.

Table 1.24
Exposure to changes in the CPI and the exchange rate, the five banking groups, December 2016 and December 2017
(NIS million)

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		The five groups	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Unindexed segment												
Total assets (excluding futures transactions and options)	291,150	306,604	304,559	318,454	140,573	150,101	159,317	167,203	97,910	107,685	993,509	1,050,047
Total liabilities (excluding futures transactions and options)	239,055	255,603	260,287	276,670	125,354	133,752	135,767	149,987	83,617	94,325	844,080	910,337
Effect of futures transactions and options	-24,142	-19,281	-20,919	-17,265	-12,222	-11,330	-16,812	-14,164	-9,350	-7,236	-83,445	-69,276
Total position in the segment ^f	27,953	31,720	23,353	24,519	2,997	5,019	6,738	3,052	4,943	6,124	65,984	70,434
The bank's total equity^{b,c}	25,488	26,312	28,202	29,937	11,302	12,465	11,664	12,881	5,835	6,312	82,491	87,907
CPI-indexed segment												
Total assets (excluding futures transactions and options)	48,573	45,279	47,099	46,017	20,211	18,063	50,352	52,008	12,594	11,475	178,829	172,842
Total liabilities (excluding futures transactions and options)	47,588	42,717	40,438	40,483	12,116	10,714	39,883	38,590	11,541	11,101	151,566	143,605
Effect of futures transactions and options	-1,469	-5,014	-626	429	-3,076	-3,124	-5,590	-3,622	-239	-268	-11,000	-11,599
Total position in the segment ^f	-484	-2,452	6,035	5,963	5,019	4,225	4,879	9,796	814	106	16,263	17,638
Maximum change in the CPI ^d (percent)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Loss as a result of the maximum change in the CPI												
CPI increase	3	16	-	-	-	-	-	-	-	-	3	16
CPI decline	-	-	40	39	33	28	32	64	5	1	110	131
Foreign currency segment^e												
Total assets (excluding futures transactions and options)	89,768	87,162	88,346	81,259	54,371	48,500	18,971	18,732	13,958	12,948	265,414	248,601
Total liabilities (excluding futures transactions and options)	117,081	115,074	111,077	98,640	66,383	59,733	41,326	36,485	23,469	20,370	359,336	330,302
Effect of futures transactions and options	25,332	24,956	21,545	16,836	15,298	14,454	22,402	17,786	9,589	7,504	94,166	81,536
Total position in the segment ^f	-1,981	-2,956	-1,186	-545	3,286	3,221	47	33	78	82	244	-165
Maximum change in the exchange rate ^f (percent)	4.8	4.6	4.8	4.6	4.8	4.6	4.8	4.6	4.8	4.6	4.8	4.6
Loss as a result of the maximum change in the exchange rate ^f												
Weakening of the shekel (depreciation)	96	135	57	25	-	-	-	-	-	-	154	160
Strengthening of the shekel (appreciation)	-	-	-	-	159	148	2	2	4	4	165	153
Total maximum loss to the bank's total equity as a result of indexation base risk^h	99	151	97	64	192	175	34	65	9	4	275	291
As a percentage of the bank's total equity	0.4	0.6	0.3	0.2	1.7	1.4	0.3	0.5	0.2	0.1	0.3	0.3

^a The total position in the segment is equal to the difference between assets and liabilities in the segment, including the effect of futures transactions.

^b The difference between assets and liabilities in all segments includes the effect of futures transactions (excluding nonmonetary items), per the Note to the published financial statements "Assets and liabilities by indexation segment".

^c The bank's total equity is attributed (by definition) entirely to the unindexed segment, with the result that the nominal exposure to indexation bases occurs in the indexed segment and in the foreign currency segment.

^d The maximum change in the CPI derived from monthly changes in inflation expectations during the past 7 years, assuming a normal distribution and a significance level of 99 percent.

^e Including foreign-currency indexed. The calculation of the banking corporations' exposure to foreign currency in this survey is based on the positions obtained from the Note to the financial statements entitled "Assets and liabilities by currency and by term to repayment".

^f The positions presented do not take into account taxation effects, while the banking corporations may take them into account when managing the exposure.

^g The maximum change in the nominal shekel-dollar exchange rate, which is derived from monthly changes in the exchange rate over the past 7 years, assuming a normal distribution and a significance level of 99 percent.

^h The change that will occur in the bank's position as the result of the maximum change in the shekel-dollar exchange rate.

ⁱ The total maximum loss as a result of indexation base risk is obtained by simple addition of the maximum losses as a result of risks in the indexed segment and the foreign currency segment, assuming that the maximum change will occur in the direction that causes the bank the maximum loss in each segment.

SOURCE: Banking Supervision Department based on published financial statements and Central Bureau of Statistics data.

CHAPTER 2

MAIN CHANGES IN THE BANKING SYSTEM

The banking world is deep in the midst of far-reaching processes and changes, against the background of the development of technology and changes in the competitive environment. These changes are expected to continue to strengthen in the coming years, in Israel and worldwide, and to structure the future banking system. The following factors, and the interaction among them, will have a particular impact: the development of technology, customer demands, domestic and global regulations, and potential nonbank competitors.

The Bank of Israel and the Ministry of Finance see the promotion of competition in the banking system as a goal, particularly in the household and small business segment. The Banking Supervision Department took steps to reduce the barriers to competition, including: reducing the capital requirements for a new acquirer and a new bank; leniencies for e-banking activity, a process that removes the requirement for broad deployment of branches; easing the requirements related to an independent IT system; and removing information barriers through the central credit register that the Bank of Israel is establishing and through two large projects that the Banking Supervision Department is currently promoting—creating “open banking”¹ and making it easier to switch banks. **The structural steps taken in recent years** have led to the recognition that the regulatory environment has changed and the importance that it attributes to competition has strengthened, and they have **already enhanced competition in many areas in the financial system:** midsized banks and credit card companies increased their share of credit extended to households at the expense of the share of the large banks; nonbank entities increased the competition for extending consumer credit and business credit, and within the framework of this process more than 1,000 applications for a license to extend credit were submitted to the Capital Market, Insurance and Savings Authority; there was a decline in acquiring fees for businesses, particularly small ones; and in the payments sphere new financial technologies were adopted and competition developed from new technology players. Obviously, competition is increasing in a prolonged process so its benefits will be clearly seen over the coming years. **The Banking Supervision Department encourages competition** in the banking industry in an ongoing manner while **maintaining the stability of each bank individually and the stability of the system overall, and while constantly monitoring the overall picture.**

¹ See the appendix to Box 2.2, “The Banking Sector—Where to? Possible Scenarios According to the BIS”.

In recent years, customers in Israel have adopted digital banking channels as the main means of consuming banking services. Direct channels serve as customers' main contact with banks today, with customers consuming more information through banks' applications and websites and less through meeting tellers at branches (see expanded discussion in Chapter 1, in the section on efficiency). The use of applications and websites enables customers to tighten their contact with the bank and to enhance their awareness of their financial status, which leads to more responsible financial management. In parallel, the banks are focusing on developing innovative technological products and on integrating advanced financial technologies, including blockchain, API, and artificial intelligence. Alongside technological applications directed at bank customers, the banks are adopting processes related to their ongoing functioning, including the use of cloud technology to increase the efficiency of processes and services, and the use of programs to increase the efficiency of the customer identification process and to forecast their repayment capacity. **The development of financial technologies and the expanded demand for them among bank customers constitute an opportunity for the banking system but also numerous challenges and risks.** Technology can change the financial institutions' business models, and banking in the future could well be different than what we have known until now.

The global banking system is dealing with numerous complex changes in the regulatory area as well. At the end of 2017, the Basel Committee published new guidelines ("Basel IV"), which include changes related to the calculation of credit risk and to the approaches to calculating the capital required against operational risks, as well as limitations on the use of internal risk-assessment models for the purpose of calculating capital (see Box 2.3). In addition, the global banking system is dealing with the fact that supervisory and compliance regulators in various countries are conducting investigations against banks related to customers' tax evasion and money laundering, and they are enhancing enforcement in these areas. As a result, banks in Israel and worldwide have been required to pay large fines—cumulatively, billions of dollars.

The banks in Israel continue to prepare for the implementation of the Enhancing Competition in the Banking System Law. This law includes significant steps, including separating credit card companies from banks. In addition, the system faces many other legislative initiatives in the areas of banking and finance, some of which are in the pipeline, such as the Payment Services Law.

Box 2.1**Competition and the changes in competition in the Israeli banking system**

- The Bank of Israel and the Ministry of Finance have defined the promotion of competition in banking as an objective, with an emphasis on households and small businesses, including all of the banking services they consume, in both credit and payments and settlements.
- In order to increase competition, the Banking Supervision Department is advancing a series of structural regulatory measures (Table 1). Some of the measures are derived from new legislative provisions that have been led by the Bank of Israel and the Ministry of Finance, and some have been at the independent initiative of the Banking Supervision Department, and are intended to promote competition, encourage technology and innovation, and improve the efficiency of the banks. The changes in the environment in which the financial entities operate, the entry of technologies to receive information and make banking transactions more easily, and the transition of customers and banks to digital services also create increasing competitive pressure in Israel and around the world.
- The measures to advance competition can be grouped into two main channels. The first is measures to increase competition between the existing financial players, such as cancelling barriers to the transfer of information and creating “open banking”, easing the transition between banks, and providing incentives for significant streamlining of the banking system. The second channel is measures that will enable the entry of new actors—both bank and nonbank—that will make use of specialized and efficient digital business models that will create a competitive threat.
- Examining the competitive level of any market is a very complex task. Changes in the structure of the market require time, particularly in a small economy such as Israel’s. Therefore, this box focuses mainly on changes that have taken place in the competitive environment, barriers to competition that were removed, and barriers that the Banking Supervision Department expects to remove in the near future. Alongside these, the changes in various quantitative indices are presented, showing the trends in the area of competition.
- The measures taken in the past two years, and the regulatory environment that encourages competition have already led to an increased competitive threat and to an actual change according to various indices, mainly in the households and small businesses sector (Table 2). Thus, for instance, competition in the area of retail credit has increased greatly, as reflected in a number of aspects, including: significant growth in the number of entities—both bank and nonbank—offering consumer credit to households; increased competition within the banking system, reflected in the increased consumer credit provided by mid-sized banks and by credit card companies as a share of total bank credit; improvement in the variety, quality and convenience of banking services for households and small businesses—including through technological and digital innovation; a significant decline in the fees charged to businesses in the area of payments and settlements; and more.
- Removal of many barriers to competition—a process that is underway—and the significant structural changes taking place in the financial market, are expected to lead to a continued increase in competition in the coming years in the areas of retail banking—households and small businesses. These are infrastructural changes, a process whose benefits will be seen gradually.

In order to facilitate competition in the credit market, and to enhance the competitive threat, barriers that prevent the development of competition must first be removed. To that end, the Banking Supervision Department continued to adopt a series of regulatory measures (Table 1). These measures can be classified into two main channels of activity: measures to enable new players to enter the market—entities that work according to business models that are digital, specialized, and efficient—and steps to enhance competition among the existing players. To enhance competition among the existing players, the Banking Supervision Department works in several ways: providing incentives to banks to increase efficiency, since greater efficiency gets rolled over to customers via competition between banks on improving services and lowering prices; removing barriers to digital activity and providing incentives to the banks to improve service to customers through digital means; and enhancing customer activity via the promotion of transparency and the transfer of information to the customer so that the customer will be able to receive alternative proposals from banks or other entities. Any initiative to enhance competition is important, but it is the overall range of steps that will bring about the intended change in competition (Figure 1).

Thus, with the goal of making it possible for new players to enter the market, the Banking Supervision Department formulated an outline for reducing the capital requirements of new banks. In addition, the Department and the Ministry of Finance are together examining the optimal way of resolving the computerization barrier problem.¹ Likewise, the Banking Supervision Department is working to ease the regulatory burden imposed on credit card companies in order to enable them to best compete against the other competitors in the market. The Banking Supervision Department also encourages removing barriers to the banks' adoption of groundbreaking new technologies, in order to make them effective competitive players in the financial market. In the payment and settlement market, hosting terms for a merchant acquirer were formulated, and barriers to establishing a new acquirer were removed, which led as well to licenses being granted to two new acquirers in the past year.

Among the significant steps to enhance competition, the Bank of Israel is currently setting up a credit data sharing system, which will assist in reducing the information gaps between the various credit providers and will allow additional competitors to compete effectively in this market, as is generally accepted worldwide. The Banking Supervision Department also updated the E-Banking directive, as part of which it set out that if a customer requests, a bank will be required to transfer information on a credit facility to a financial entity in order for the customer to receive competing offers. This will allow the opening of credit facilities in current accounts (overdrafts) to competition. In addition, the Banking Supervision Department is working to regulate the system for sharing banking information by defining the API ("open banking") standard. API is a platform that allows third party systems or applications to view information. In the bank-technology regard, it will enable players such as fintech companies to view the banking data held by the banks (such as transfers and payments executed by the customer), with the consent of the customer and in a secure manner, in order to allow other entities to compete with the banks over the services they provide to their customers—that is, "open banking". These steps join the banking ID card that currently exists, which is a means of providing concentrated information to the customer in the framework of one comprehensive report, including regarding fees. The banking ID card is intended to

¹ The computer networks and technological infrastructure of the banks are complicated and expensive to establish and maintain, and must meet the requirements of many regulatory rules. This high cost poses one of the entry barriers to new banks.

Table 1**Reducing the barriers to competition in banking**

Main initiatives promoted by the Bank of Israel and other partners to enhance competition

Initiatives that have been implemented**Reducing capital requirements for a new acquirer and a new bank**

- The capital required for establishing a new acquirer was significantly reduced, to approximately NIS 1 million.
- The capital required for establishing a new bank was reduced to NIS 50 million (from NIS 400 million).

Removing requirements for physical branch deployment and easing e-banking activity

- Numerous regulatory leniencies were granted in e-banking areas, which enable new and existing players to provide e-banking services and reduce the “disadvantages of small size”.
- The supervisory barriers that required broad deployment as part of the banking activity were removed.

Reducing information barriers

- Customers receive a banking ID card, which is a means for providing concentrated information within the framework of one overall report, including information on fees.

Enhanced flexibility and operational effectiveness for the customer’s benefit

- The Banking Supervision Department provided incentives for the banks to increase their efficiency in human resources, real estate, and expenses in general.
- The supervisory policy regarding outsourcing and collaboration with third parties was changed, to allow greater flexibility for financial entities regarding customer service.
- It was established that customers using digital means should be charged reduced fees.
- An outline for reducing interchange fees was set.

Regulation and supervision supporting competition:

- The Banking Supervision Department simplified and eased the process of receiving a license for a new acquirer and a new bank by creating an initial stage of receiving a limited-activity license, which is rapid and provides certainty for the applicant.
- The Banking Supervision Department defined a risk-based supervisory policy, according to which small and new entities receive, and will receive, leniencies regarding compliance with Proper Conduct of Banking Business Directives.
- The Capital Markets Authority was authorized to supervise numerous nonbank financial entities, and is working to regulate their activity.

Initiatives in process**Leniency regarding an independent IT system**

- The Ministry of Finance and the Bank of Israel are working to promote an IT services office, which will enable new players to conduct activity through it.
- The law was amended so that a bank will be able to be hosted on another bank’s IT systems.

Removing information barriers

- The Bank of Israel is establishing a credit-data sharing system, which will expand the information held by small banks and nonbank credit providers.
- The Banking Supervision Department is leading a workteam that is acting to ease the transfer of customer information digitally, with the customer's consent, via the API technology standard.

Structural change in increasing the number of players in the market

- The Banking Supervision Department is promoting the separation of two credit card companies from the banks, and to that end, published supervisory directives that will assist companies in the beginning of their activity after the separation (in the area of capital, and soon in the area of liquidity).
- All of these changes are expected to also ease the establishment of a digital bank, and the Banking Supervision Department is guiding entities interested in setting up such a bank.

Easing the transfer between banks

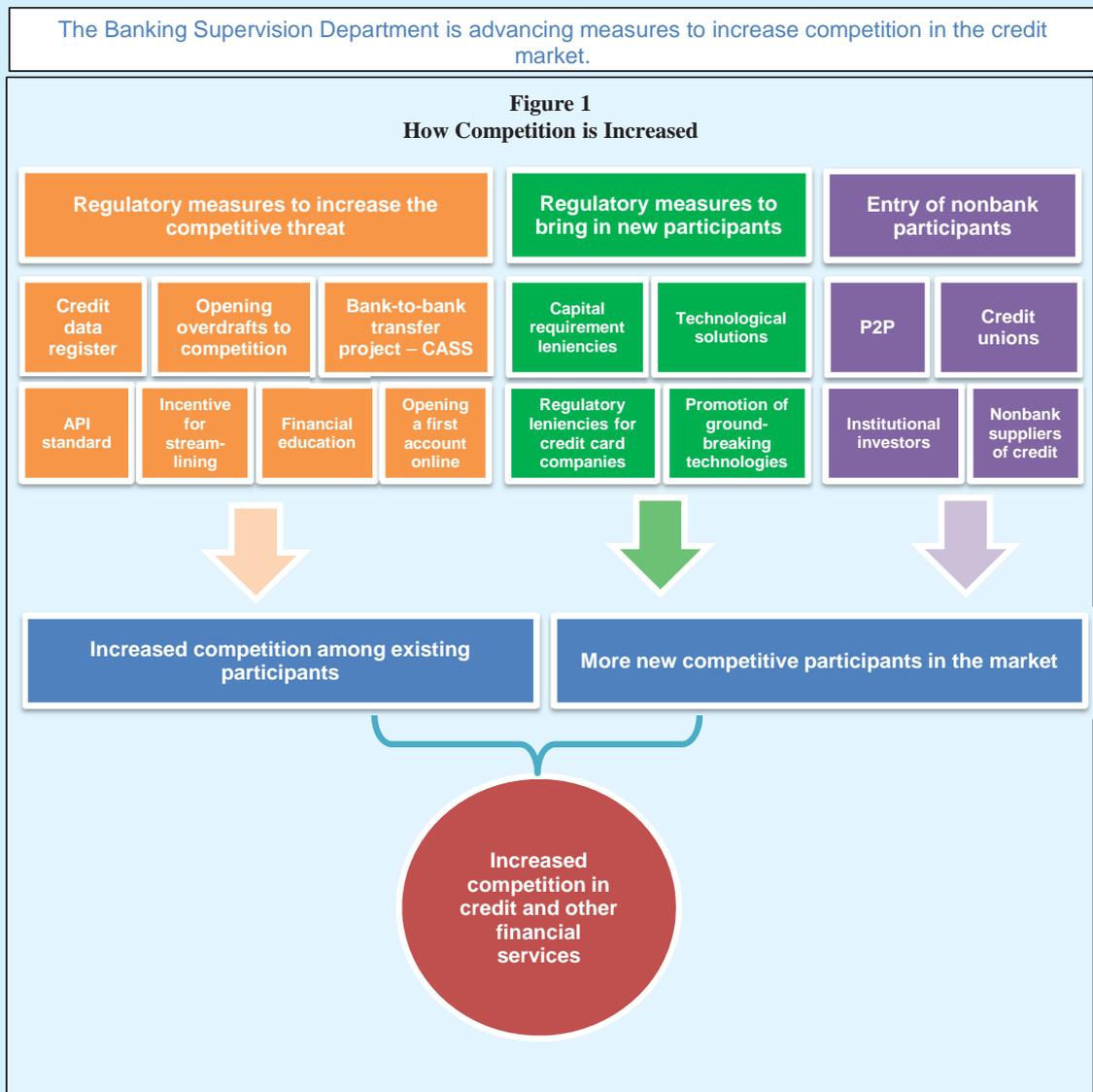
- A joint committee of the Bank of Israel, the Ministry of Finance, and the banks is working to establish a mechanism that will make it possible to switch banks easily ("with a click"), including an automatic forwarding mechanism.

Enhancing customers' financial awareness and digital education

- The Banking Supervision Department is working via various initiatives to increase the public's financial awareness.
- The banks expanded their activity to enhance financial awareness and digital training for customers.

assist the customer in making informed consumer decisions, to improve the customer's ability to monitor his or her activity in the account, to enhance the ability to compare various banking products and services, and to motivate and assist the customer in improving his or her conditions.

For customers to be able to switch easily and securely, the Banking Supervision Department is working together with the Ministry of Finance to formulate an outline that allows transferring a current account in a manner that is simple and secure for the customer. It is a complicated project that the banks will have to implement in the next three years. The current account is one of the main financial products required by customers, but it is also one of the most complicated accounts to transfer between various suppliers, due to the operating risk during the transfer, which derives from the concern for nonexecution of transactions set in the account. Therefore a solution is being examined that relies on the CASS (Current Account Switching Service) model, which is similar to that used in the UK, according to which the transfer between accounts is carried out through a simple notice to the bank, which will markedly reduce the bureaucratic burden in this step. In addition, the Banking Supervision Department is working to update directives that will allow the opening and closing of online accounts very easily. Easier and more accessible opening and closing processes will enable more effective competition between banks.



Importance of financial education in enhancing competition

One of the important factors in enhancing competition is consumer activism. The more that consumers understand the financial costs they bear and the wide variety of services offered by the various financial entities, in a manner that will enable them to compare the costs, quality and range of services among the financial institutions in accordance with their needs, the more the competition between the financial institutions for those consumers will increase. Essentially, financial education and awareness will make the requisite knowledge accessible to the customers, enable them to improve their conduct and to act in a rational manner, and help them become informed consumers.

Enhancing the financial and financial-digital information among the various population groups has become more important, particularly with the increase in the number of financial entities that are currently offering credit and financial products to the public. Therefore, the Banking Supervision Department decided to act to enhance the financial awareness of various population groups in Israel, inter alia in order to reduce the knowledge gaps and improve economic welfare and awareness of rights. (For an expanded discussion on the issue of Banking Supervision Department activity in this area, see Box 3.1, “Increasing Financial Awareness”.)

Changes in competition in retail sectors: Households and small businesses

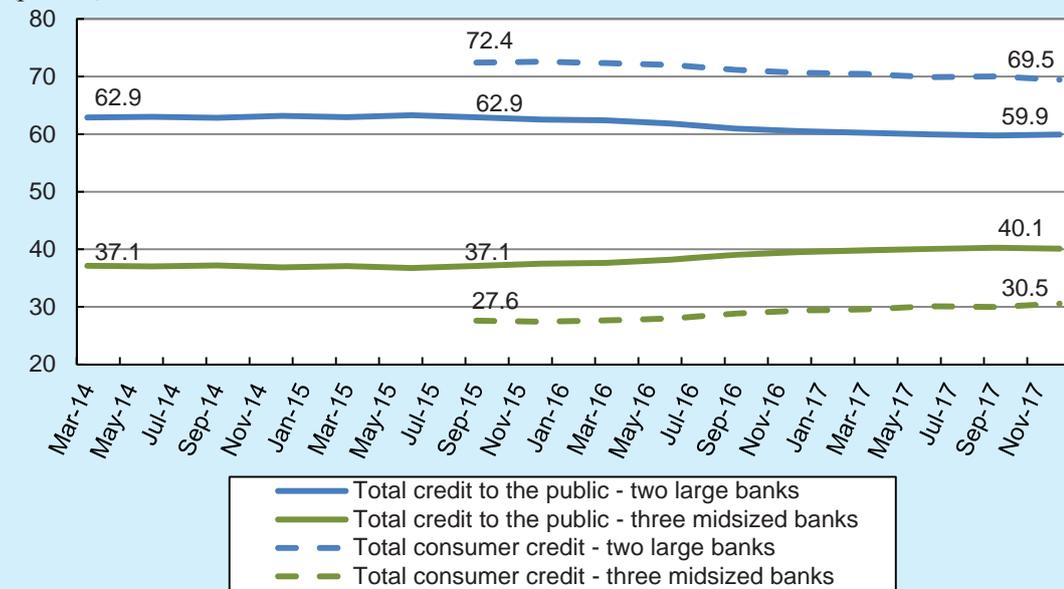
The measuring of competition in general, and in banking areas in particular, is a complex subject, as this market incorporates a range of activities with different characteristics. When measuring the competition for supplying a specific financial service, the question of which market to focus on arises—whether the banking market alone, or the market of all the entities providing this service, such as the credit provision market, which includes nonbank entities. In the past two years we have seen the rapid development of the retail credit market overall, with the entrance of new competitors into this market: credit card companies (not guaranteed by banks), nonbank credit providers, institutional entities that expanded their activities into consumer credit areas, lending platforms between people and businesses (P2P and P2B), and others. The Banking Supervision Department works to enhance competition in the payment and settlement systems area as well, with the objective of influencing the price that a merchant pays for credit card transactions and the service that the merchant receives. Each of these markets has its own activity characteristics, composition of costs and regulatory features, and therefore, when examining competition, a distinction should be made between the various markets and their features.

In the literature, there are two main approaches to measuring the level of competition in the banking market. The first is the structural approach, which relies on indices of concentration and argues that there is a connection between the level of concentration in a market and the level of competition in it, because concentration is liable to allow correlated activity between the companies, and thus weaken competition. In contrast, the nonstructural (competitive threat) approach to competition argues that concentrated markets are not necessarily noncompetitive, because the existence of a competitive threat is sufficient for there to be competition. The competitive threat approach assumes that there are additional components besides market structure that can affect the extent of competition, such as regulatory barriers (Bresnahan, 1989, Panzar and Rosse, 1987). In fact, numerous current research papers have not found a link between the level of concentration and the level of actual competition in a market, which derives from the existence of a competitive threat. This indicates that an examination solely of concentration indices, and certainly of concentration calculated only in the banking market while ignoring the competing nonbank market, is not sufficient to indicate the level of competition, and is even liable to be misleading. In order to estimate the development of competition in the market, the whole range of changes occurring in the market needs to be examined.

In the past two years, we have seen changes in competition over households and small businesses, which are due to the regulatory changes noted above. The changes are already reflected to various extents. (See Table 2 and expanded discussion further in text.) However, it is important to remember that many

The three midsized banks' share of credit to the public, particularly consumer credit, increased at the expense of the large banks' share.

Figure 2
Distribution of credit to the public, particularly the consumer credit portfolio, between the large banks and the midsized banks^a, March 2014 to December 2017
 (percent)



^a Among the five large banks only. Reporting is only at the banking corporation level, not including loans provided by credit card companies that are backed by the banking corporation. The large banks—Hapoalim and Leumi; the midsized banks—Mizrachi-Tefahot, Discount and First International.
 SOURCE: Based on reports to the Banking Supervision Department.

other reflections of competition are expected in the future, but not yet seen, since the changes in the market structure are a prolonged process, particularly in a small economy like Israel's.

One of the main reasons for changes in the consumer credit market is the entry and activity of nonbank players. Credit card companies, some of which are expected to be separated from the banks, increased the consumer credit that is not guaranteed by banks. In addition, banks have begun to provide consumer credit to borrowers who are not their customers as well. Nonbank credit companies also began to integrate into the consumer loans market, as shown by the fact that in 2017 more than 1,000 requests for a credit provider's license were submitted to the Capital Market Authority.² Midsized banks have increased their share of the bank consumer-credit market (Figure 2), and the banks' share of the overall consumer credit market has begun to decline. (Figure 3. For expanded discussion, see Chapter 1, "Consumer Credit".) It is worth noting that the data are not complete—they essentially do not include private nonbank entities, which do not report on the extent of credit they extend. These data are expected to be collected in the future by the Capital Market Authority.

² Among those requests were requests from check discounting entities.

Table 2
Indicators showing enhanced competition in banking for households and small businesses

Increased number of players and alternatives for the banking consumer

- The Banking Supervision Department gave licenses to two new acquirers
- The number of nonbank credit providers for households increased
- The two credit card companies that will be separated from the banks are already operating under a more competitive strategy than before.
- Banks are offering credit services and deposits to customers who don't manage a current account with them.

Decrease in payments fees for businesses

- Acquiring fees for businesses are decreasing.
- The credit card companies signed a range of agreements with umbrella organizations of small businesses and aggregators, in which the inherent acquiring fee is lower than what was charged in the past, and the change is reflected in the continued decrease in fees.

Enhanced innovation and improved banking service

- The banks have improved the digital tools for the public, which allow more convenient and less expensive service.
- The public is increasing its use of the innovative digital tools.

Increased efficiency

- The banks are showing improved efficiency, as a result of the implementation of voluntary retirement plans and of big changes in organizational structure and work processes, due to incentives from the Banking Supervision Department.

Change in market share in the consumer credit sector

- The market shares of midsized banks and credit card companies increased in the area of credit to households.
- Consumer credit provided by nonbank entities has increased.

Decrease in fees for households

- The fees to households are declining in a wide range of areas, particularly when the activity is conducted via direct channels, and the ratio of total fees to banks' total assets is declining.

Improvement in transparency of information to the customer and in the ability to understand and compare alternatives

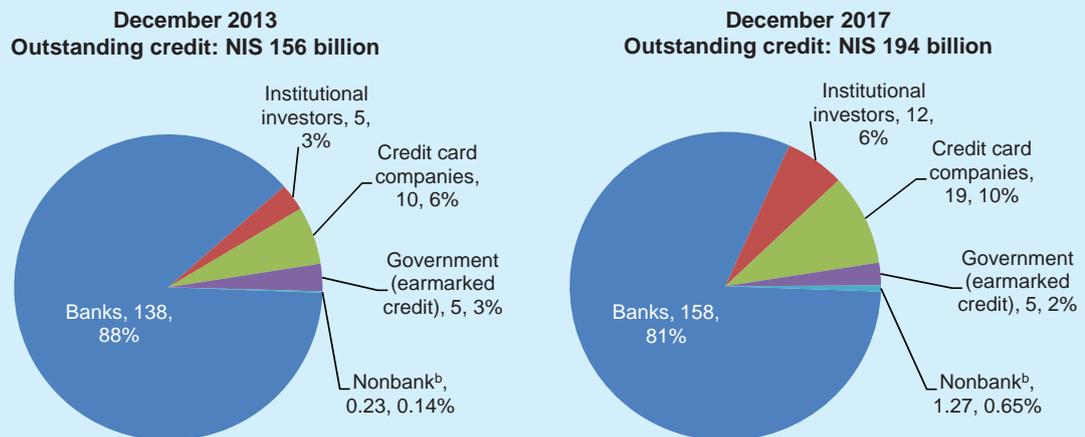
- Technology enables customers to easily compare the offers they receive in credit, mortgages, securities, and other areas, conveniently and without a physical meeting.

Competition for retail customers by improving services and opening new services

The banks can now be seen competing for customers by developing various services in order to improve service to the customer. Some banks focus on the digital aspect, and upgrade applications to allow financial information to be viewed and bank transactions to be executed through the application, from depositing checks, taking out loans, transferring money, and managing deposits, to completely managing a bank

The banks' market share of credit to households is declining due to the increase in credit from nonbank sources.

Figure 3
Distribution of Outstanding Credit to Households (Nonhousing) by Sources^a, December 2013 and December 2017



^a Excluding credit from nonresidents due to a lack of data. Credit from banks includes loans that are not for residential purposes but were secured by a dwelling. As of December 2017, this balance is about NIS 20 billion. Credit from credit card companies does not include credit that is the responsibility of or guaranteed by the banks, which is included in the outstanding credit of the banks.

^b The data include the "Yashir Finance" company only. Other data on nonbank financing will be gathered in the future by the Capital Market Authority.

SOURCE: Bank of Israel, Tel Aviv Stock Exchange.

account solely online. Thus, payment transfer applications and payment wallets were developed. Other banks are looking to improve the customer's interface with human bankers, with the goal of improving the quality of the service, through Internet video calls, which save the customer having to go to the branch themselves, strengthening the telephone system and remote service centers, and increasing branch deployment.

Credit card companies that are expected to be separated from the banks, and will have to compete against them, are also taking significant steps. Thus, we see those companies competing for loyalty clubs by granting benefits to customers, such as reducing the prices of purchases and refunding a portion from the purchases made by customers using credit, all with the goal of increasing their market share.

These expressions of improved and expanded services, which indicate competition, are expected to strengthen and become more varied with the actual separation of the credit card companies, and with the strengthening of additional nonbank competitors, such as regulated nonbank credit providers, P2P companies and Big Tech companies that have already begun to provide financial services worldwide. Concern over competitors is motivating the banks to significantly increase efficiency and to invest even now in advanced technological means. (For an expanded discussion, see Chapter 1, "Increased efficiency", as well as Box 2.2, "The banking sector—where to? Possible scenarios according to the BIS".)

Impact on fees and credit prices

In recent years the average monthly cost of household and private banking accounts declined markedly. This decline began following a series of regulatory steps taken by the Banking Supervision Department to enhance transparency regarding fees for banking services and in order to reduce the fees in the various channels to benefit consumers. This decline increased in the past two years in view of the shift by customers to digital channels and regulatory directives by the Banking Supervision Department regarding charging lower fees for online transactions. The cost for customer-executed transactions is up to 75 percent lower than the cost of teller-executed transactions.

In 2017, the Banking Supervision Department's activity contributed greatly to the reduction of fees for banking services, as based on its guidelines every activity carried out by a customer via direct channels is to be cheaper than the same activity carried out by a teller. The banks did in fact reduce fees for various services

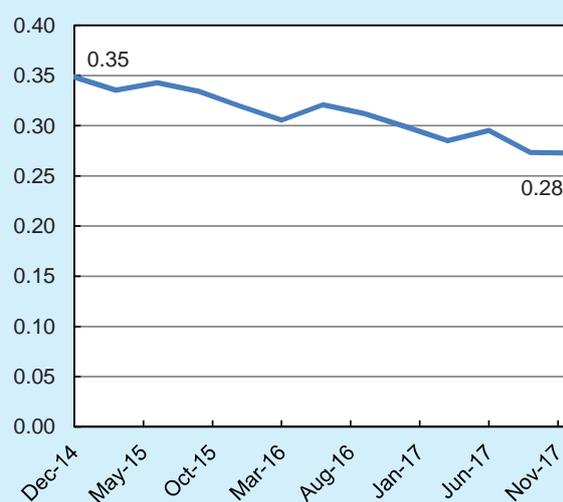
by between 10 and 100 percent. The decrease in fees for customer-executed transactions becomes clearer in view of the increase in the number of transactions carried out by those direct channels.

In the payment and settlement industry, the increased competition is apparent in a decline in merchant fees. In the past three years, the merchant fee minus the interchange fee declined by approximately 0.07 percentage points (Figure 4). The decision to act to open the market to additional competitors, which creates a competitive threat, led to a reduction in settlement fees even before those competitors began their activities. In fact, two new players recently entered the acquiring field—Tranzilla and Cardcom. (For an expanded discussion, see Chapter 1, "The credit card companies".)

In terms of the interest rate on credit, it is difficult to assess the effect that increasing competition and changes in the market will have, as the rate is based on four factors: the costs of raising the sources to extend the credit; credit risk, which is derived from both borrower risk and from the correlation between that risk and other borrowers in the credit portfolio; the operational costs required to extend the credit; and a premium representing the market power derived from the extent of competition. With enhanced competition, the premium that the credit entities will be able to charge as a result of their market power is expected to decrease, though in parallel the risk premium is expected to increase, as it may be assumed that accessibility of credit to households and small businesses will increase, and it is reasonable that this will increase their leverage. If this increase is significant enough to impact the level of risk, it will

Increased competition in the acquirer industry led to a decline in merchant fees.

Figure 4
Merchant Fees Excluding Interchange Fees,
December 2014 to December 2017 (percent)



SOURCE: Based on reports to the Banking Supervision Department.

serve to increase the interest rates on credit, as shown in countries that have a high level of competition but also maintain high interest rates (such as Estonia and Slovakia). Thus it is difficult to assess how the interest rates on credit will develop.

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Box 2.2**The banking sector—where to? Possible scenarios according to the BIS**

- In the digital era, technology plays an ever increasing role in the business world, including in the finance industry. The past few years have witnessed the rapid development of technology that simplifies the process of providing remote banking services, and streamlines the service and operating systems. Simultaneously we are also seeing advanced technologies at various stages of development and it is fair to assume that new and varied financial uses will be found for them—for example, blockchain, Artificial Intelligence (AI), Advanced Machine Learning as well as digital image processing and biometry.
- The development of financial technologies (fintech) provides opportunities for the banking system and for bank customers, but it also poses new risks and challenges. Fintech increases the domestic and foreign competition facing banks, giving rise to changes in the business models, but it is also accompanied by greater risks of leaked information and could adversely affect business continuity.
- It is widely believed that fintech will dramatically change the face of retail banking in coming years. There is broad agreement that there will still be a need for banking services but they will be provided in different forms—and possibly also by different players—than those we are familiar with today.
- The Bank for International Settlements (BIS)'s Basel Committee formulated five possible scenarios which demonstrate how the development of fintech will affect the future world of banking; practically speaking, it is also possible that various combinations of these scenarios will materialize:
 1. **The Better Bank** – the incumbent players will undergo digitization and modernization.
 2. **The New Bank** – the incumbents will be replaced by new, technology-driven banks (challenger banks).
 3. **The Distributed Bank** – financial services currently provided by the banks, with customers managing their own current accounts, will be fragmented among a large number of banks and technology players.
 4. **The Relegated Bank** – the technology players, such as the technology giants or fintech companies, will take over the interface with the customers (who, in practice, will treat them as banks), while the incumbent banks will become commoditized service providers managing the risks behind the scenes.
 5. **The Disintermediated Bank** – the need for a mediating third party is removed as retail banking takes place on the basis of technology. The BIS believes that this scenario is unlikely.
- The Bank of Israel's Banking Supervision Department attributes considerable importance to the promotion of financial technology and innovation, for the benefit of customers and with the goal of adapting the incumbent banks' business model to the new world of technology. The Banking Supervision Department therefore uses various regulatory tools to encourage banking innovation and remove the obstacles that hamper the assimilation of new technologies, while at the same time outlining the principles for managing the resulting risks. Additionally, the Banking Supervision Department offers the banks incentives for increasing the efficiency of their operations, in the belief that banks of the future will employ less manpower and more technology.

- If the banks succeed in adopting and channeling the new technologies toward automating and streamlining their processes, to create new products and services, enhance the customer experience and convenience, and strengthen controls and compliance, they will then be able to harness the digitization process for adapting the business model to the new world and protect their “economic raison d’être”.
- The banks in Israel invest considerable resources in promoting digitization and technology, but they must ensure that they are able to keep up with the global pace of progress and reduce their operating costs, while providing customers with innovative products and services.

Background

In the current era, the financial world as a whole and the banking sector in particular are undergoing significant changes as a result of the development of financial technologies (fintech).¹ These changes are becoming ever more significant and they are expected to continue to impact the banking sector in Israel and around the world. Alongside this, the giant international technology companies, commonly known as “Big Tech”,² are expanding into new areas of activity and it is assessed that some of them will increasingly enter the finance and banking sectors. The development of technologies provides opportunities for the banking system and its customers, but it also poses many challenges and risks. Technology can bring about changes in the financial institutions’ business models and it is possible that future banking activity will be completely different from the activity we have been familiar with to date.

A large number of technologies with financial applications have developed in recent years. These include Artificial Intelligence (AI) and Machine Learning which are based on Big Data analytics, open banking which is applied through Application Programming Interface (API), blockchain and DLT (Distributed Ledger Technology), cloud computing, digital image processing and biometry (see the Appendix for a more detailed explanation of these technologies). These technologies offer a broad range of possibilities for diversifying banking products and services, making the services easier to utilize and improving the customer experience, enhancing controls and compliance, and streamlining the work processes. Additionally, the developments trigger changes in consumer preferences: customers become more aware of their financial situation and demonstrate increasing willingness to adopt new technologies and utilize Internet-based digital banking. As a result, competition for providing banking services is intensifying, whether on the part of players outside the banking system (technology companies or new technology-based financial players) or by the banking system itself—through technology.

¹ For more information, see the Survey of Israel’s Banking System for 2015, Box 1.1: *Technological innovation in financial services: Fintech companies and digitalized banking*.

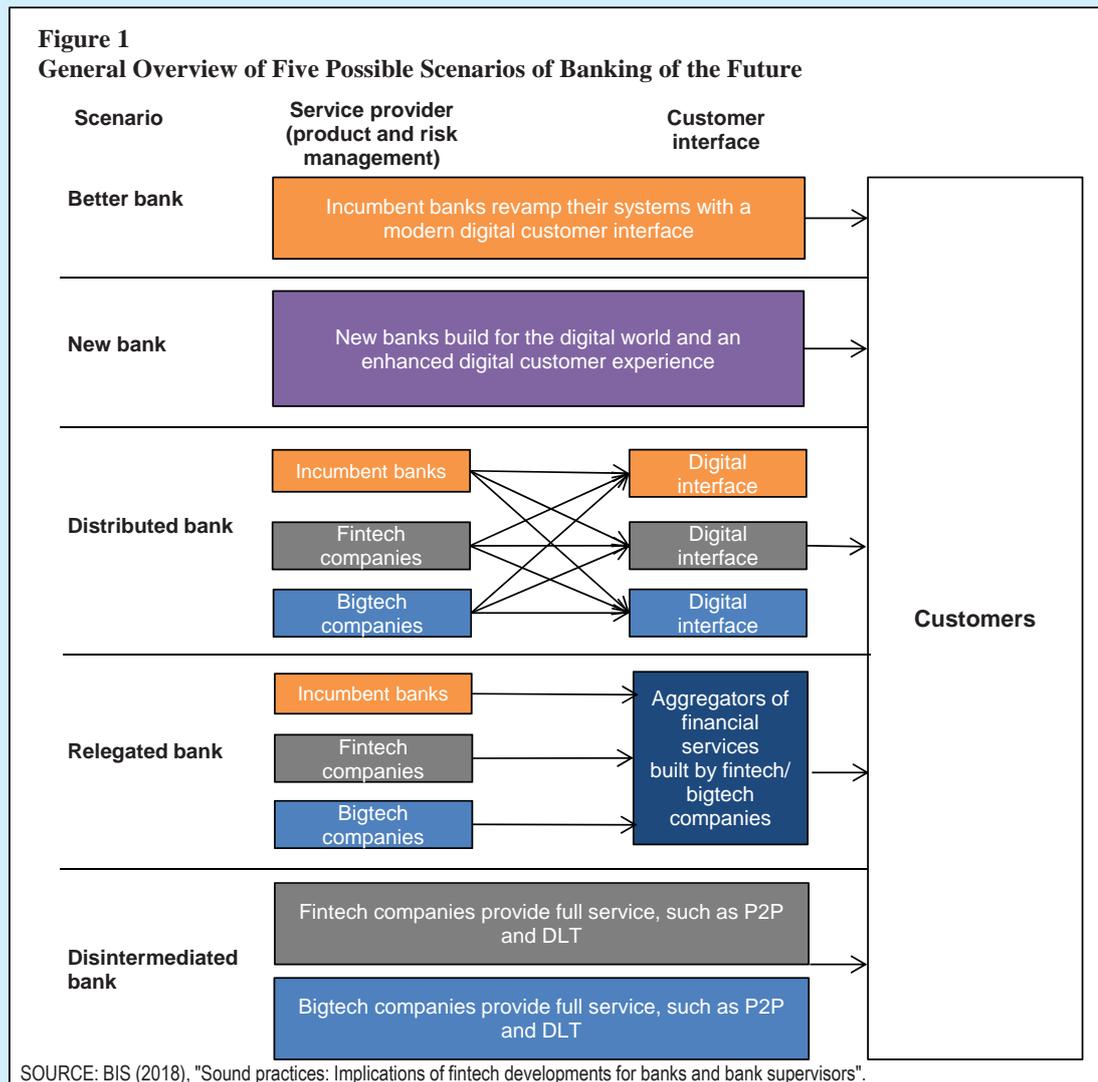
² This term generally includes Google, Facebook, Amazon and Apple (sometimes known as GAFA), but may, in some cases, also include Alibaba and Microsoft.

Possible scenarios for the future of the banking industry

The future of the banking system is dependent on a large number of factors and the interaction between them: banks, customers, local and global regulations, potential competitors in Israel and around the world and technological developments. The multiplicity of such factors and the complex relationships between them make it difficult to estimate how the development of technology will impact the banking industry, and particularly its profitability and competition within the industry. In this section, we will present a brief survey of five possible scenarios formulated by the Basel Committee on Banking Supervision (BCBS) (Figure 1). The key players in these scenarios include the incumbent banks, fintech companies, and the Big Tech companies. Notably, the scenarios do not take into account possible measures that the regulatory authorities might introduce; moreover the BCBS document addresses the banking industry worldwide, and does not necessarily relate to the industry in Israel. Furthermore, these scenarios are not mutually exclusive, and in the real world a combination of the scenarios is likely to materialize.

1. **The Better Bank: In the Better Bank scenario, the incumbent banks will digitize and modernize themselves.** The incumbent banks will continue to assimilate new technologies and will become increasingly digital. Some of the business models will change, but they will retain their core operations and customer relationships. The banks will use innovative technologies to improve their systems, overhaul the customer interface, create added value, and offer advanced technologies such as robo-advisor services and digital wealth-management tools. The technology will also enable the banks to streamline their operations, improve their operating and risk management systems and provide their services in a more cost-effective way. The banks will have to make considerable effort to adapt their present business model, particularly in view of the fact that, for the most part, they are still using old systems, complicated processes, and a structure that is incompatible with future requirements.
2. **The New Bank: In the New Bank scenario, the incumbent banks will be replaced by new, technology-driven players.** The incumbent banks will not survive the digital revolution and will be replaced by new, technology-driven banks (Big Tech or fintech companies) which will be able to obtain banking licenses from the regulators in different countries. The technology-driven banks will maintain innovative, high-speed and cost-effective digital infrastructure, utilizing big data analytics—for example, from social networks, with the customer's consent – to offer customers personalized value-oriented services. Global market research³ shows that young customers are willing to utilize the banking services provided by some of the technology giants.
3. **The Distributed Bank: In the Distributed Bank scenario, financial services will be distributed among banks and technology-driven players.** The financial services that customers currently purchase from the banks managing their salary and current accounts will be modularized and may be provided by many and various players, including banks, fintech and Big Tech companies. In other words, customers will divide the services they consume among a large number of players. Some of the services currently provided by the banks—such as money transfers and payments, digital loans and robo-advisor services—will be transferred to the technology-driven companies. In this scenario,

³ See for example: 1) Bain & Company (2017), *Evolving the Customer Experience in Banking*, and 2) Accenture (2016), *Beyond the Everyday Bank*.



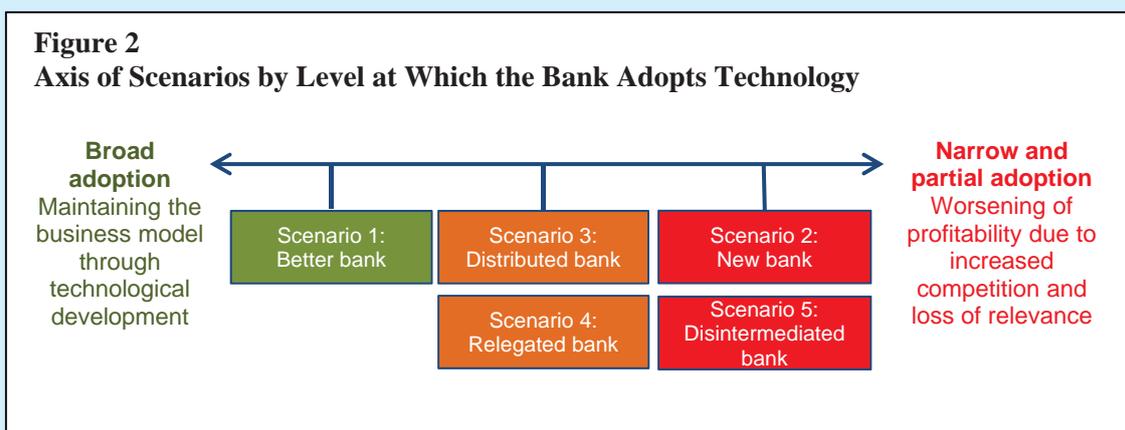
the banks will carve out enough of a niche to survive and all the players in the market will maintain contact with and compete for the customers (through a digital interface). In this scenario, players may also cooperate with one another through different activity models (such as joint ventures or outsourcing). In this case, the technology-driven players will not compete for customers as new banks, but as the providers of specific financial services, and the banks will manage to retain their customers, although they will see a loss of revenues and their volume of activity will shrink.

4. **The Relegated Bank:** In the Relegated Bank scenario, the incumbent banks will cede their operations to new digital intermediaries who will manage the ongoing relationship and interface with the customer. The fintech and Big Tech companies will collaborate with the banks: the technology companies will manage the customer interface through innovative front-end

platforms that enhance the customer experience, while the banks will operate backstage and continue to manage the risks, serving as the operations base for providing financial services. In other words, the bank will become a sort of licensed provider of core banking services for technology companies, but will not communicate directly with the customers.

5. **The Disintermediated Bank: In the Disintermediated scenario, banking activity will be conducted peer-to-peer and the incumbent banks will no longer be a significant player in the financial system.** Banks will no longer be needed in a third-party capacity as the technology will be sufficiently reliable and secure to provide peer-to-peer services. In other words, the banks will be displaced from customer financial transactions which will be performed directly between the customers, for example on blockchain infrastructure. Parties to a transaction will be matched directly by means of various digital platforms (provided by the technology companies) depending on their financial needs—borrowing, making payments, raising capital, etc. The BCBS believes that this scenario is rather far-fetched, in part given that the use of DLT and P2P platforms is complex for technological, legal and financial reasons (such as, for example duration discrepancies between deposits and loans).

These scenarios can be arranged on an axis that describes the extent to which the banks are adopting the new technologies and the resulting change in profitability and in the business model (Figure 2). **If the banks succeed in adopting and channeling the new technologies toward automating and streamlining their processes, create new products and services, enhance the customer experience and convenience and improve regulatory compliance, they will be better equipped to harness the digitization process to maintain their status and their economic raison d'être.** In contrast, banks that fail to adapt their business model and offer the modern customer value-oriented services will be forced to accept lower profits and their business model will be compromised by the stronger competition, declining margins and loss of market segments to technology-driven competitors. It is important to remember that not all investments in technology assets will necessarily lead to improved profitability as they often entail high costs, but the potential is great given that these investments could provide value for the customer and thus preserve the bank-customer relationship. **The banks must therefore formulate a strategic plan, prepare for the future and manage their risks responsibly and cautiously.**



Opportunities and risks

The growth of fintech provides numerous opportunities for both customers and banks (Table 1). For customers, the technology and competition generated by fintech enhances their power due to the availability of information, the large number of options, the ability to compare prices and the ability to closely monitor their financial position. For the banks, the technology provides an opportunity to increase efficiency, to cut manpower costs and to automate and streamline their work and risk management processes. The technology also helps them diversify their sources of income as it enables them to offer innovative, technology-driven products and services that offer the customer added value.

In contrast, the technological changes and digitization processes could increase the exposure to

	Risks	Opportunities
Impact on the consumer sector (customers)	Data privacy and data security	Greater ability to monitor financial position
	Discontinuity of some banking services	Enhanced customer power in view of the ability to compare prices
	Improper marketing practices	Financial inclusion – expanded access for under-served populations
	Increased leverage of households and businesses due to greater availability of credit	Better and more tailored financial services
	Reduced accessibility for certain populations due to fewer branches	Reduced transaction costs and efficient, convenient interface Lower prices due to competition and greater number of sources
Impact on the banking system	Strategic and profitability risks for the banks	Lower operating costs and more efficient work processes
	Increased interconnectedness between financial parties	Improved marketing ability due to innovative use of data
	Operating risk (systemic and nonsystemic)	Improved risk management due to innovative use of data and ability to identify anomalies
	Cyber risk	Diverse sources of income—offering innovative products and services
	Third-party risk (outsourcing/suppliers)	Potential increase of financial stability through fragmentation and reduced systemic risk associated with the large players
	Compliance risk (including information security failures)	Improved compliance processes using innovative technologies (Regtech)
	Money laundering and terrorism-financing risk	
	High investment costs due to technological changes	
Liquidity risks and volatility of sources of capital		

Source: Based on the table that appears in BIS (2018), “Sound Practices: Implications of Fintech Developments for Banks and Bank Supervisors”.

certain risks. **Customers are exposed to a variety of risks, including information security risks and infringement of privacy, while the banks are exposed to strategic risk, profitability risk and numerous other risks,**⁴ for example cyber risk, reputation risk, compliance risk, third-party risks, and liquidity risk (due to volatility of the sources of capital). These risks reinforce the banks' need to formulate a strategy that will enable them to integrate the new technologies while maintaining their stability and soundness, alongside effective risk management.

Measures introduced by the Banking Supervision Department to promote banking technology and innovation

The Banking Supervision Department believes that the banking system must be adapted to the changing business environment in light of the digital-technological revolution and it views this adjustment as a key goal. Technological innovation is extremely important since it increases competition, promotes greater efficiency, and improves the fairness, accessibility and transparency of the information. Accordingly, the Banking Supervision Department is working to advance financial services technology at two levels. First, the Banking Supervision Department works to remove regulatory barriers to make it easier for the banks to adopt new technologies. For example, it promotes the possibility of using technology-based methods of identification to replace the physical interaction between the bank clerk and the customer, it simplifies the processing of opening a digital account, supports advanced means of payment (through the assimilation of EMV technology, removing barriers to payment applications and reviewing the regulation of other advanced payment systems), and it promotes collaboration with fintech companies. The Banking Supervision Department is also working to regulate a system for sharing banking information by defining an API standard for open banking, with the purpose of enabling customers to compare price quotes from different players. Second, the Banking Supervision Department encourages customers to switch to the use of digital channels by reducing the fees on transactions via direct channels,⁵ and it requires the banks to educate their customers in the digital processes to help them transition to banking practices of the future. Over the next few years, the Banking Supervision Department, in conjunction with the Ministry of Finance, will promote several significant technology initiatives, first and foremost, mobility between banks at the press of a button, a program aimed at making it easier for customers to move from one bank to another using innovative technology. The Department will also establish a new central computerization office⁶ making it easier for new banks to receive computer services without having to bear the establishment costs.

⁴ See Chapter 1, section on risks.

⁵ See Bank of Israel, Press Release: The Semiannual Report to the Economic Affairs Committee on Prices of Common Banking Services for Households.

⁶ See Bank of Israel, Press Release: Ministry of Finance and the Bank of Israel unveil the continuation of the program to increase competition in the banking market (December 2017). Computer costs are a substantial component of banking corporations' expenses, and this step is therefore a key component in removing entry barriers to the banking market.

Appendix: Examples of technology with financial applications

- **Distributed Ledger Technology (DLT) based on blockchain** – a tool for recording information through a distributed ledger, i.e., a repeated digital copy of data in multiple computers. This technology allows financial transactions to be executed through a distributed, encrypted, trusted system, without the need for a third party to the transaction. Blockchain technology is the foundation of digital currencies such as bitcoin and it also has numerous potential uses in the finance sector: smart contracts (such as documentary credit and real-estate contracts), trade finance platforms, syndicated loans, internal and international payments and settlements, accounting, and liquidity management, to name but a few.
- **Big-Data based Artificial Intelligence (AI) and Advanced Machine Learning (AML)** – Big Data technology allows huge quantities of data to be collected and analyzed (for example, to formulate insights regarding customer needs). AI and AML make it possible to learn through experience, namely—to examine assumptions and make decisions based on advanced analytics of collected data. The use of such technologies helps improve personalization and customer service, in part by building chatbots (computer programs that independently conduct conversations with humans by textual methods) and robo-advisors that make use of cognitive computing to understand, analyze and resolve problems facing customers. These technologies also have other uses for banking: analysis and streamlining of the value chain, transaction analysis and identification of strategic sectors, fraud identification and prevention, and more.
- **Open banking and Application Programming Interface (API)** – a platform that enables systems or third-party applications to view information. Players such as fintech companies can use this technology to view banking information (i.e., information in the bank’s possession such as payments and transfers performed by the customer), with the customer’s agreement, securely and with strong customer identification. Open banking can improve the financial position of customers by allowing them to receive financial offers from different entities on a uniform platform, helping them compare the possibilities and choose the service most suited to their needs. The information about competing offers will also improve the customer’s ability to bargain with financial services providers. Several European countries introduced the use of this technology early in 2018 as part of the PSD2 Directive (European Revised Payment Services Directive).
- **Cloud computing** – technology that allows information to be stored on remote servers which can then be accessed via the Internet from anywhere in the world. Cloud computing is cost effective as it allows resources to be shared and used as necessary.⁷ Cloud computing technology can also provide fintech companies with direct access to the back-office infrastructures of financial institutions which could lead to stronger competition. The use of this technology requires data security and protection of privacy solutions.
- **Digital image processing, biometry and voice recognition** – the use of these technologies for identification purposes eliminates the need for passwords and allows for more advanced security services. Banks and credit card companies the world over are adopting technologies of this type

⁷ See Proper Conduct of Banking Business Directive no. 362 (July 2017).

and integrating them in their routine operations to enable smart, rapid and effective customer identification.

- **Internet of Things (IoT)** – a technology that allows the networking of physical objects and devices, such as vehicles and buildings. This technology can be used to collect information in real time about physical assets embedded with electronics, sensors and mechanisms for the transfer of data and commands (with the customer's consent). The banks will therefore be able to improve their operating performance, customer experience and product costing.
- **5G Internet** – advanced mobile phone Internet technology. This technology is expected to accelerate the transfer of data and improve other cellular communications features, thus transferring banking data at record speeds on cellular networks. It is also expected to accelerate technological innovations such as IoT, payments technologies and the automation of processes. 5G Internet is expected to become operational in the next two years.
- **Augmented Reality (AR) / Virtual Reality (VR)** – VR technology allows users to “visit” virtual worlds using special-purpose glasses, whereas AR technology provides an interactive experience of a real-world environment whose elements are “augmented” so that physical and virtual elements appear together (hand-in-hand). These technologies have business and banking applications, including improving the customer experience by enabling them to visit the branch virtually and to speak to their bank clerk face to face.

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Box 2.3**The Basel IV¹ guidelines and their expected impact on banking in Israel and abroad**

- **The Basel III and Basel IV reforms are the main components of the Basel Committee’s response to the Global Financial Crisis that broke out in 2008.** They deal with deficiencies that characterized the regulatory guidelines before the crisis and became evident after the fact, and they provide a foundation for a resilient banking system that will assist banks in dealing with major losses and help to prevent a buildup of systemic vulnerabilities -in the banking and economic systems.
- **The two reforms focus on capital adequacy as a buffer for absorbing losses that banks are liable to suffer when risks are realized.** The Basel III reform focuses on the definition of capital in the equation for calculating capital adequacy (the numerator), while the Basel IV guidelines focus on calculating the risk-weighted assets (the denominator) in a transparent and comparable manner with the goal of enabling market participants to adequately assess the bank’s risk profile.
- **The Basel IV reform was published in December 2017, and it includes several main changes:**
 - **The standardized approach to calculating credit risk was revised.** To enhance the sensitivity to risk, new rules were established for calculating the risk assets, and the risk weights were updated, particularly for residential real estate and commercial real estate.
 - **Limitations were placed on the use of internal risk-assessment models for the calculation of capital.** Dramatic differences were found among the various banks worldwide in the implementation of internal risk-rating approaches for calculating credit risk, and in retrospect it became clear that these approaches allowed them to hold capital at levels that were too low. Therefore, the reform imposed limitations on the use of such models for the purpose of calculating the capital required of the bank. In this regard, it is important to emphasize that in Israel, the Banking Supervision Department did not authorize a single bank to use such approaches for calculating capital, with the understanding that it is liable to lead to an exaggerated reduction in the level of capital held by the banks.
 - **A change was made in the approaches to calculating the capital required against operational risks:** All the approaches to calculating operational risk were replaced by a new standardized approach that is based on measuring the bank’s income and past losses.
- Most of the changes included in Basel IV will only go into effect at the beginning of 2022.
- Surveys and assessments worldwide indicate that the reform is expected to weigh on banks in Europe and to lead to markedly higher capital requirements, primarily at banks that implement the advanced approaches, meaning the approaches based on internal models.
- For Israel, the Banking Supervision Department has not yet decided how and when to implement Basel IV, so it is impossible at this stage to determine how the reform will affect the capital requirements in the banking system. However, it is possible to assess that it will have a minor impact, as the banks in Israel implement the current directives—Basel III—conservatively, and in particular as the Banking Supervision Department decided in the past not to use the internal models approach to calculate the capital at banks in Israel.

¹ The Basel Committee views these guidelines as complementary to the Basel III reform.

Basel III: Finalising Post-Crisis Reforms, December 2017: <https://www.bis.org/bcbs/publ/d424.pdf>

Background

In 2006, the Basel Committee published the framework for capital measurement, known as “Basel II”, with the goal of reaching capital requirements that are more risk-sensitive, rather than using capital requirements that are identical for all banks.

The main innovation in this framework concerns granting the possibility of making wide use of the banks’ internal risk assessment for calculating the capital requirements in respect of various risks (credit, market, and operational). In addition, standardized approaches were set for calculating capital requirements, for which the Basel Committee established calculation methods.

In 2011, the Basel Committee published the Basel III document—a global regulatory framework for strengthening the resilience of the banking system. This framework is a main component of the Committee’s response to the global financial crisis, and it is intended to improve the banking sector’s ability to absorb shocks resulting from financial or economic pressures, and to provide a basis for a robust banking system that will help in preventing the buildup of systemic vulnerability. The document focused on the following components:

- Improvement in the quality of regulatory capital while focusing on core capital.
- Increased level of capital required to ensure that banks are resilient to losses during a crisis.
- Addition of macroprudential components to the framework, including capital buffers for times of crisis and an additional capital buffer for systemically important banks.
- A requirement to meet a minimum leverage ratio in order to prevent overleveraging in the banking system.
- Establishing a framework for reducing liquidity risk and a requirement to comply with two new supervisory liquidity ratios, the Liquidity Coverage Ratio and the Net Stable Funding Ratio.

In December 2017, complementary guidelines to Basel III were published, known as “Basel IV”. It became clear that there is wide variance among banks in calculating the risk-weighted assets that serve as the base for calculating the capital ratios, and complementary guidelines were intended to reduce this variance in order to make the ratios transparent and comparable, and thus enable investors to assess the bank’s risk profile. In order to rebuild the reliability of the calculation, the sensitivity to risk of the standardized approaches to credit and operational risk was enhanced, and within the framework of the advanced approaches, limitations were imposed on the use of internal models for calculating capital.

The main changes included in Basel IV

1. Calculating the capital required vis-à-vis credit risk

The banking corporations in Israel calculate the capital required in respect of credit risk using the standardized approach. In this approach, the exposures in the various categories are weighted based on external credit ratings, and the risk weights range between 0 and 150 percent, in accordance with rating tables established by the Basel Committee. The Banking Supervision Department chose not to allow the banking corporations to calculate risk assets and capital via internal models, based on the assessment that these models are liable to be characterized by lack of transparency and stability, and even to lead to an exaggerated reduction in capital held by the banks.

The financial crisis emphasized several weaknesses as a result of the banks worldwide making broad use of internal rating approaches for the purpose of calculating the capital required against risks.

To illustrate, these approaches yield risk assets that are markedly lower than those yielded by the standardized approach, and they led the banks to present high capital adequacy ratios even though they held insufficient levels of capital. Therefore, the guidelines regarding the internal ratings approaches were updated, and in addition a minimum for calculating the risk assets was set—72.5 percent of the result calculated by the standardized approach.

As the Banking Supervision Department in Israel did not allow any bank to use the internal ratings approach, the changes related to these approaches are not expected to have an impact on the calculation of the capital requirements in the Israeli banking system.

2. Update of the standardized approach

The updated standardized approach included in Basel IV is more sensitive to risk. In order to achieve this sensitivity, new criteria were established that distinguish between debts of large companies and debts of small or midsized companies; between different types of retail exposures; and between various debts secured by residential real estate and by commercial real estate—based on the loan to value ratio.

At this stage, it is impossible to assess the impact of the changes related to the standardized approach, primarily because it has not yet been established how they will be implemented in Israel (the current Basel directives were adopted in a stringent version, particularly with regard to the weighting of housing credit).

3. Calculation of the capital required vis-à-vis operational risk

The banks in Israel currently calculate the capital requirements in respect of operational risk by the standardized approach, in which the bank's activities are divided into eight lines of business, and in each line the gross income serves as an estimate for the volume of business activity, and therefore also as a reasonable estimate for the scope of exposure to operational risk. Multiplying the gross income in each line by a coefficient that ranges from 12–18 percent gives the capital requirement.

For banks in Israel, the Banking Supervision Department did not approve the use of the advanced approaches established by the Basel Committee (the approaches based on internal models).

The financial crisis led to two main insights concerning the current framework for operational risk. First, it became clear that all the approaches yield capital requirements that are insufficient for covering the losses created for several banks in respect of operational risk. Second, these losses derived from events such as fines that were imposed on the banks due to inappropriate activity and from insufficient systems and controls, such as in the area of trading rooms, and this highlighted the problem inherent in using internal models for assessing capital requirements in respect of operational risk.

Therefore, the Basel Committee decided to cancel the use of the advanced approaches and the standardized approaches, and to replace them with a single, risk-sensitive, standardized approach.

The new standardized approach establishes the capital requirements in respect of operational risk based on two components: a measurement of the bank's income and a measurement of the bank's past losses. This approach assumes that operational risk increases as the bank's income increases, and that banks that have in the past absorbed large losses in respect of operational risk will apparently absorb such losses in the future as well.

The impact of the new guidelines on the capital requirements at banks in Israel and abroad

As most of the new guidelines are not expected to go into effect before 2022, and as the Banking Supervision Department has not yet published guidelines regarding the manner of their implementation, it is impossible to determine at this time how they will affect the Israeli banking system. Tests carried out by the EBA² at European banks (36 large banks and 52 other banks) indicate that the total Common Equity Tier 1 Capital requirement increased by approximately 14.1 percent at large banks and by 3.9 percent at others, as detailed in Table 1:

Table 1

The change that Basel IV implementation is expected to generate in total minimum Common Equity Tier 1 Capital requirements at banks in Europe, as a share of total minimum capital requirements

	Total change in capital requirements		Credit risk		Operational risk	Capital floor	Leverage ratio
	In respect of all changes	of which: Risk-based	Banks that implement the advanced approaches	Banks that implement the standardized approach			
All the banks	12.9	14.5	4.3	1	2.5	6.6	-1.6
Large banks	14.1	15.6	4.5	1.5	2.7	6.9	-1.6
Other banks	3.9	5.3	2.7	-2.4	0.8	4.2	-1.3

Banks are considered large if they have international activity and Common Equity Tier 1 Capital greater than €3 billion. The rest are considered other banks.

SOURCE: EBA and Ad hoc Cumulative Impact Assessment of the Basel Reform Package, 2017.

The data also indicate that:

- Most of the increase included in the capital requirements derives from the banks that use the advanced approaches and from operating the capital floor limitation.
 - In the “other banks” group, there was a decrease in the capital requirements in respect of credit risk among the banks that implement the standardized approach, and the increase in the capital requirement in respect of operational risk is only 0.8 percent. That is, the effect derives mainly from the cancellation of the internal models. The other banks that implemented the standardized approach to credit risk—an approach that was updated in Basel IV—absorb a lesser effect.
 - At all the banks, the requirements related to the leverage ratio declined, as the new directives will increase the denominator (total assets) and will cause some deterioration of the leverage ratio.
- The points noted above do not lead to a conclusion as to how the implementation of Basel IV is expected to affect the Israeli banking system, as it is distinguished from the European banks in the composition of its activity and because from the starting point, much more conservative approaches were implemented in it, based on the Banking Supervision Department’s demands.

² Ad hoc Cumulative Impact Assessment of the Basel Reform Package, EBA, December 20, 2017.

Additional issues that should be considered

- **It may be assumed that the banks will carry out certain updates in their business models as a result of the changes in the capital requirements** for various types of exposures and counterparties. The business areas for which lower capital requirements apply are likely to be more attractive, and vice versa. As a result, there are likely to be changes in the composition of the various products and in pricing of the costs.
- **The banks will be required to prepare operationally for the implementation of the new requirements and to carry out adjustments to processes and information**, so that they will be able to collect, analyze, and report information on borrowers and exposures to counterparties at the appropriate resolution—that is, at the level required to calculate the new weighting rates. In terms of operational risk, the banks will be required to prepare for the establishment of internal systems and processes that will allow the collection, analysis, and reporting of the data required to quantify the business indicators and to quantify the experience they have accumulated regarding incidents of loss.
- **At this stage it is not clear how the regulators in the various countries will implement the new guidelines** and refer to the place where it will be possible to use judgment in the various approaches.

CHAPTER 3

ACTIVITIES OF THE BANKING SUPERVISION DEPARTMENT

1. THE VISION AND STRATEGIC TARGETS OF THE BANKING SUPERVISION DEPARTMENT

The Banking Supervision Department seeks to advance the public good on the basis of its authority as granted by law. This is accomplished by maintaining the stability of the banking system, with the goals of protecting the public's deposits; achieving greater fairness in relations between the banks and their customers; encouraging competition; and ensuring the support of the banking system for the activity of companies and individuals in the economy. These functions are interconnected and are critical in maintaining public confidence in the banking system and in order to facilitate economic growth. In order to attain these goals, the Banking Supervision Department defined two secondary goals three years ago: encouragement of technological innovation in the banking system and achieving greater efficiency among the banks.

During 2015, the Banking Supervision Department reexamined its strategic goals and formulated a vision for coming years, namely to serve as a professional supervisory body working proactively for the benefit of the public and the economy. In 2017, the Department continued taking measures to achieve these goals.

The Department's main strategic target is to maintain the stability of the banks and to ensure their prudent management, in order to protect the public's funds held at the banks. Two additional strategic targets are the maintenance of fairness in relations between the banks and their customers, which is essential to maintaining public confidence in the banking system, and encouragement of competition in banking services, with emphasis on retail credit, credit to small businesses and payments and settlements, as well as the implementation of structural changes by, among other things, lowering barriers to entry for new players.

These strategic goals were chosen in view of the dramatic changes taking place in the economic, technological and social environments, which require a reexamination of the banking system's structure, the identity and number of its various players and their business models.

The Banking Supervision Department has defined supporting goals that are meant to help achieve its strategic goals. These include: encouraging greater operating

Goals set by the Banking Supervision Department are maintaining stability, promoting fairness and encouraging competition in the banking system. There is an emphasis on supporting goals that it will promote—encouraging innovation and technology in banking, and advancing the increasing of efficiency at banks.

efficiency in the banks, by means of balancing the regulatory burden, among others; and encouraging the adoption of technology and innovation by the banks, by removing regulatory barriers in these domains, in order to, among other things, facilitate the providing of high-quality banking services with high added value for customers.

In order to achieve the strategic goal of **stability**, the Banking Supervision Department works to ensure adequate levels of capital and liquidity among the banks, that the banks are adapting their business models to the changing environment—which is becoming increasingly competitive and technological—and that they are updating their risk management in view of the new and developing risks.

In order to support the strategic goal of **encouraging competition**, the Banking Supervision Department is taking a leading role in the implementation of major changes in the structure of the banking system and primarily the separation of two credit card companies from the large banks. Additional changes being implemented by the Banking Supervision Department include: the removal of barriers of entry to the banking and payments industry; the creation of a “lenient supervisory regime” for new and small entities, including reduced capital requirements; the removal of barriers to the transition to branchless digital banking; the promotion of sharing of computer infrastructure, in cooperation with the Ministry of Finance, with the goal of facilitating the entry of new players into the industry; and making it easier to switch bank (“switching with a click”).

In order to achieve the strategic goal in the areas of **fairness and public confidence**, the Banking Supervision Department handles enquiries from the public **by means of a designated unit**; it is promoting regulatory activity in bank-customer relations; it is carrying out audits; it takes steps to promote the public’s financial awareness, with focus on various target populations (such as the elderly and youth); it is encouraging greater access to banking information for the consumer; it is working to improve disclosure to the public; and it is supporting processes to increase efficiency and to close bank branches, while maintaining the interests of customers.

The following is a survey of the main activities of the Banking Supervision Department in 2017:

a. The main activities to continue increasing stability

- **The Banking Supervision Department examined the banks’ risk management and corporate governance** by means of audits and reviews. These processes led in the end to practical requirements and recommendations for banking improvements. During 2017, emphasis was placed on the management of credit risk and on fairness in consumer credit; and on the banks’ management of the risk in credit to business borrowers, including appropriate classification and loan-loss provisions, of interest rate risk in the bank portfolio and of risks in compliance, conduct, fraud and embezzlement, including as a result of activity in trading rooms.

- **There was continued monitoring of the development of risk in the consumer credit portfolio, in view of the continuing growth in credit to households. This was accomplished by audits and measures to reduce these risks.** Special attention was devoted by the Banking Supervision Department to the risk implicit in non-housing consumer credit, the manner in which it is managed and its disclosure to the public. This follows the significant growth in this type of credit in recent years.
- **The Banking Supervision Department continued to monitor the development of risk in the business credit portfolio,** which included the carrying out of audits, and following the assimilation of major directives in the area of risk management, it obligated the banks to resolve the problems and deficiencies that were revealed and emphasized the need for an examination of whether loan-loss provisions are adequate.
- **The Banking Supervision Department worked to revise the supervisory methodology for risk assessment,** including an examination of the common practices of leading supervisory authorities in other countries and their adaptation to the banking system in Israel.
- **The Banking Supervision Department took steps to strengthen the banks' corporate governance,** including increased effectiveness of the boards of directors in order to increase the efficiency of their work and strengthen their ability to oversee the actions of the bank's management. This was accomplished by means of an amendment to the Proper Conduct of Banking Business Directive that defines the functions of the board of directors and its methods of operation, which included, among other things, a reduction in the number of directors, more stringent criteria for approval of directors and a requirement to set a maximum tenure for the chairman of the board. In addition, the Banking Supervision Department took enforcement measures when deficiencies in corporate governance were revealed.
- **The Banking Supervision Department worked to regulate activity based on cloud technology.** The use of cloud technologies is liable to expose a bank to significant operational risk, as well as to cyber and information security risks. The regulation of this area by means of a Proper Conduct of Banking Business Directive was intended to emphasize the need for risk management when cloud technologies are used and thus to involve in this effort the senior management level.
- **The Banking Supervision Department worked together with relevant national regulatory bodies,** the Cyber Banking Center and the banking system **to strengthen their ability to manage cyber risk** by sharing information and protecting the financial system from cyber threats.
- **The Banking Supervision Department issued permits to institutional investors to increase their holdings to up to 7.5 percent.** This represents a continuation of the policy adopted in 2016, which allows the public to increase its holdings of bank shares by means of the money they hold with the financial institutions.

- **The Banking Supervision Department sought to increase control over the banks' overseas branches.** The Department published a specific directive to the banks on supervision of overseas branches, which included new requirements intended to focus activity abroad and to strengthen risk management in the overseas branches, while at the same time tightening and reinforcing the control over their activity by means of risk management mechanisms, as well as internal and external auditing.
- **The Banking Supervision Department introduced regulation for the management of risk resulting from trading by customers in derivatives and shares.** The goal is to improve and reinforce risk management among the banks and in this way to reduce the possibility of failures in the future. The directive placed special emphasis on the management of risk originating from customers who are involved in speculative activity, i.e., high-volume trading in derivatives and securities and with a particularly high level of risk.
- **The Banking Supervision Department instructed the banking system to carry out an analysis of credit to the vehicle commerce industry and consumer credit for the purchase of a vehicle,** in view of the continuing growth in credit to this sector and indications of an increased level of risk among some of the borrowers. The data show a moderation of activity in this sector so far, following the issue of this directive.
- **A FATF audit was carried out.** In February 2016, Israel's request to join the Financial Action Task Force (FATF), the leading global organization in the fight against money laundering and the financing of terror, was approved. As part of the acceptance process, Israel must successfully pass an international audit that will look at Israel's compliance with international money laundering laws. The audit is being carried out in 2017-18 and in that framework technical compliance and the effectiveness of the regime are being examined using the organization's new method. As part of the check of technical compliance, the implementation of 40 specific FATF recommendations is being examined. As part of the examination of effectiveness, the fulfillment of 11 immediate outcomes (IO), which embody the regime's main goals in effectively fighting money laundering, is being examined.

b. The main activities to reinforce fairness

In order to further enhance the fairness in the relationship between banking corporations and their customers, and to bolster the customer's position:

- **The Banking Supervision Department initiated the introduction of a structured discount in all direct-channel activities** relative to the fee charged for the same activity carried out by a teller. The goal is to encourage the transition to direct channels, which are more efficient and less costly.
- **The Banking Supervision Department provided support for the closing of branches and reducing the number of teller positions,**

subject to a directive it issued on the subject. The process of closing branches and reducing teller-provided services is the result of both the move toward greater efficiency among the banks and the change in customers' priorities regarding the consumption of banking services (transition to direct channels). Based on the request for data defined in the aforementioned directive, the Banking Supervision Department is looking at each branch closing, including an assessment of the accessibility of banking services in the vicinity of the branch, the mix of the branch's customers and the alternatives offered to these customers. According to the circumstances in each case, the Department decides on whether to approve the closing and whether to attach conditions to its approval.

- **The Banking Supervision Department issued a permit to three banks for the operation of mobile and partial-service branches.** The mobile branches will improve the access to banking services for customers living in the periphery and for the elderly.
- **The Banking Supervision Department presented the Bank of Israel's position** on banking consumerism issues to the Knesset committees and ministerial committees. It also provided professional opinions on proposed legislation and participated in the handling of class action suits.
- **The Banking Supervision Department took a leading role in activity to increase financial awareness among the general public.** This was accomplished by, among other things, increasing financial awareness among Grade 9 students in 750 classes throughout the country. The activity was implemented in collaboration with the Ministry of Education, the National Student Council, the Forum of Municipal Parent Committees, the Association of Banks and the banks themselves. The lesson plans include, among other topics, basic financial concepts and smart banking consumerism.
- **The Banking Supervision Department completed the formulation of the directive for fairness in the collection of debt.** The directive specifies the instructions and processes for improving disclosure and fairness when collecting debts from customers who have not met the conditions of their loans and have not repaid them on schedule. The directive embodies the expectation that the banks will try to find other ways of collecting a debt before turning to legal action.
- **The Banking Supervision Department instructed the banking system to give priority to providing human telephone support to elderly customers and customers with special needs.** This is part of an effort to help specific sectors of the population who are finding it difficult to adapt to the new digital world.
- **The Banking Supervision Department worked to make digital banking services more accessible to individuals with special needs and those with "kosher" phones.** This was accomplished by providing

the possibility of receiving a password, which is used to convert text into voice during part of the remote identification process.

- **As part of the process of dealing with atypical bank fees, the Banking Supervision Department announced regulatory measures that are expected to reduce the fee on a bank guarantee that is backed by a deposit.** One of the most common situations in which this type of bank guarantee is used is as part of the process to rent an apartment or a small business and therefore the reduction of this fee is expected to benefit households and small businesses.
- **The Banking Supervision Department continued to improve the response to public enquiries** and to strengthen the position of public complaint officers. We note that the Public Enquiries Unit remains the address for the solution of problems that were not dealt with by a bank to the satisfaction of the customer.
- **The Banking Supervision Department created an Internet site intended to improve service and the providing of information services and to issue approvals to tens of thousands of customers whose accounts have been restricted.** In addition, there is a telephone help desk that provides solutions in particular and technical cases to customers who have been unsuccessful in obtaining a full solution on the Internet site.
- **The Banking Supervision Department extended the period during which an individual requesting a housing loan is required to submit the documents required by the bank from 12 to 24 days, during which the rate of interest quoted to the customer remains valid.**
- The Banking Supervision Department worked **to encourage small businesses to join the banking tracks service, which is likely to reduce their account management costs.** The banks were asked to examine whether it is worthwhile for their small business customers to join the service and to notify them accordingly.
- The Banking Supervision Department has established that **the banks are obligated to erase information on an account restriction** received from the Banking Supervision Department according to the Checks Without Cover Law **immediately on the lifting of the account restriction.**
- The Banking Supervision Department has eased the manner in which mortgages with loan-to-value ratios of between 60 and 75 percent are risk weighted. This is intended **to allow home buyers to fully exploit their ability to take out a mortgage,** within the regulatory limits, without resorting to supplementary consumer credit.
- The Banking Supervision Department issued a clarification that the interest rates offered to a customer making use of an eligibility loan as part of his efforts to finance a home purchase could not be changed for the

worse relative to a situation in which the entire financing was by means of the bank, given identical risk characteristics.

- The Banking Supervision Department improved the efficiency of sending notifications to customers and also added potentially beneficial information to the special notifications sent to customers.

c. The main activities to promote competition and efficiency among the banks

The Banking Supervision Department worked to carry out structural changes that will support an increased competitive threat and competition in the coming years.

- The Banking Supervision Department worked to implement the **Increasing Competition and Reducing Competition in the Banking Sector in Israel Law, in collaboration with the Ministry of Finance and other entities** by means of, among other things, support provided to the monitoring committee.
- The Banking Supervision Department **announced a schedule for reducing the interchange fee** from 0.7 percent to 0.5 percent in three stages by 2024. This reduction is expected to benefit businesses and is in addition to the creation of greater regulatory certainty, which will facilitate the sale of the credit card companies and the process of transforming them into independent and competitive financial entities.
- The Banking Supervision Department **worked to create regulatory certainty with regard to the activity of the credit card companies that are to be separated from the banks**. In this context, it published criteria for acquiring the credit card companies to be spun off from the banks and invited potential buyers in Israel and abroad to assess the opportunity. Similarly, the Banking Supervision Department published regulatory exemptions for the credit card companies that are related to liquidity and capital.
- **The Banking Supervision Department, in collaboration with the Ministry of Finance, continued to promote the creation of a joint computer center** which will serve a number of banks and financial players in the economy. This is based on the understanding that computer infrastructure constitutes a major barrier to entry into the banking market for new small players.
- **The Banking Supervision Department, in collaboration with the Ministry of Finance, is promoting the reform to facilitate switching from one bank to another (“switching in a click”)**. This reform, which is complicated from the perspective of infrastructure, will enable customers to easily switch from one bank to another. This will include the creation of a predetermined Service Level Agreement (SLA) and will increase competition between the banks.
- **The Banking Supervision Department published a draft directive according to which portfolio managers can operate digitally in**

customers' bank accounts. Customers will be able to provide portfolio managers with a power of attorney, without visiting the branch, which will permit them to operate in their accounts.

- **The Banking Supervision Department has promoted competition in the settlement domain through the following measures:**
 - **Easing of the requirements imposed on potential and existing merchant acquirers and a reduction in supervision over them. This activity bore fruit when a license was granted to a new acquirer in April 2017.** Among other things, the Banking Supervision Department made it easier for new acquirers to enter the market by defining a new application procedure for an acquiring license; it has reduced the capital requirements imposed on new acquirers to the generally accepted levels in other countries, in accordance with the approach of the Payment System Directive (PSD); and it has promoted the use of debit cards.
 - **Publishing of rules for the hosting of acquirers, which are meant to remove technological barriers to the entry of new competitors into the settlement market** and which are the result of both the constraint on connecting to the payments system and the fact that creating a settlement infrastructure is a complex and lengthy task.
 - **Promotion of the assimilation of the advanced EMV standard within the acquiring market for payment cards.** The adoption of this advanced standard will contribute to innovation in the payments market by, among other things, allowing “contactless” payments by way of a cellular phone; it will strengthen competition in issuing and acquiring by removing the barrier to entry of new players from abroad; and it will reduce the risk of deceit and fraud.
- **Publishing of a draft directive concerning the activity of P2P platforms,** which will go into effect in parallel to the money laundering prohibition that will apply to these platforms.
- **Encouragement of innovation and technology in banking** by means of an update to the Proper Conduct of Banking Business Directive on E-Banking, which was first published in 2017. This directive removes identified barriers to entry which are impeding the progress of branchless direct-channel banking and creates an infrastructure for the creation of a branchless digital bank. The update of the directive has **simplified the processes of remote identification of customers and has enabled the opening of an account digitally, starting from the customer's first account and including minors from age 16.**

- **The Banking Supervision Department has required the banks to increase efficiency and has provided support for the efficiency measures proposed.** This included less stringent capital restrictions on the banks, with the goal of facilitating major efficiency measures. The Banking Supervision Department has provided support for the implementation of the efficiency measures presented during 2016, whose results are reflected in the banks' efficiency indices. The importance of increased efficiency is growing, in view of the technological revolution occurring in banking worldwide. In the future, less manpower will be needed in some banking activities.
- **Advancing of an open banking standard (Open Banking API) which will facilitate the flow of information** from the banks to financial institutions and other entities, with the goal of increasing the transparency of information for the customer, thus enabling these entities to offer value propositions to customers.
- **The Banking Supervision Department has worked to regulate the activity of mortgage advisors** by issuing a directive on the subject. The goal is, on the one hand, to facilitate the activity of these advisors for the benefit of the customer and, on the other, to prevent the involvement of non-professionals who can harm both the customers and the banks.
- The Banking Supervision Department has worked to create an additional option for ongoing communication between the banks and the customer under certain conditions, by means of regulation **that allows a bank to send clients information by email** without encryption, subject to an appropriate assessment of risk and additional controls as specified in the directive.

Box 3.1**Increasing financial awareness**

- **The Banking Supervision Department maintains continual contact with customers in the banking system, primarily by means of the Public Enquiries Unit and the Restricted Accounts Section, and as a result it is aware of the lack of basic financial understanding and gaps in information on financial subjects. These phenomena sometimes lead to unwise decisions, financial distress and friction with banks.**
- **The Banking Supervision Department attributes great importance to the acquisition of financial literacy, which constitutes a basic life skill. The Department believes that regulations and rules are not sufficient in order to strengthen households and small businesses and to ensure wise financial consumerism and that measures should also be taken to increase their financial awareness.**
- **In recent years, the Banking Supervision Department has been focusing on increasing financial awareness among certain populations in Israeli society, in order to reduce information gaps, increase awareness of rights, etc. In recent years, the Banking Supervision Department has initiated various programs for households (“Financial Awareness Week”) and for youth in the schools (“Financial Awareness Month”) and during 2018 it implemented a new program that is intended to provide digital education to senior citizens in order to help them deal with the transition to digital and direct banking.**
- **The OECD countries view financial literacy as a critical life skill and therefore they promote financial education programs. Furthermore, many countries recognize that it is important to develop financial literacy from a young age and therefore they have made the subject compulsory in the education system.**
- **It is important to integrate financial education as a compulsory subject in the education system, and the Banking Supervision Department will be happy to provide the assistance necessary to write content on the subject of banking and to provide information. Several legislative proposals have been put forward in the last two years and it is important to move them toward approval.**

The Banking Supervision Department maintains ongoing contact with customers of the banking system through a number of channels, including the Public Enquiries Unit, which handles thousands of enquiries every year; the Restricted Accounts Section; and visits by the Supervisor of Banks to the bank branches. Through these channels, the Banking Supervision Department is exposed to the lack of basic financial understanding and information gaps in financial subjects that exist among customers.

The Banking Supervision Department attributes great importance to the acquisition of financial literacy, a basic life skill that will help the public in their day-to-day dealings with the banks and with other financial institutions. The Banking Supervision Department feels that in order to strengthen households and small business and in order to ensure wise financial consumerism, regulation and rules are not sufficient and that it must also work to increase financial awareness. Without it, households and small businesses will not know how to exploit the numerous tools provided to them by the Banking Supervision Department

and the banks and they may even encounter financial difficulties during their lifetime as a result. The importance of raising financial awareness is growing, in view of the fact that legislation in Israel is working toward the goal of expanding the number of financial institutions that offer credit and financial products to the public and the fact that technology is making it increasingly convenient to consume financial services, such as credit.

In this context, it should be added that the Survey of Financial Literacy carried out by the Central Bureau of Statistics in 2012 pointed to a shortfall in financial knowledge. The Survey compared Israel to the OECD average and showed that financial literacy in Israel is lower in most categories. The OECD countries view financial literacy as a necessary life skill and therefore promote financial education programs. In some of the countries, the programs start from childhood and they present material at increasingly complicated levels in order to ensure that it is absorbed and understood.

The Banking Supervision Department feels that increasing financial awareness will help create a situation in which banking consumers will acquire basic financial skills, which include the following:

- Fluency in basic banking/financial terms: Customers need to understand fundamental terms such as interest, bank fees, bank deposits and credit lines.
- Budget management: Customers need to monitor their income and expenses and balance between them.
- Appropriate financial behavior: For example, customers should refrain from obtaining additional credit if this is liable to worsen their long-term situation and perhaps even lead to financial distress.
- Adopting critical consumerism: Customers should negotiate with the bank over the terms of their account, should carry out a survey of the market between the various banks in order to lower their costs, etc.
- Monitoring of their bank account: Customers should keep track of activity in their accounts through a number of channels, including the bank's Internet site, the bank's app and the automated machines.
- Day-to-day saving management: As part of maintaining good financial behavior, the customers should plan their activities and prepare for large expenditures, both expected and unexpected, by regularly putting aside money.

Programs to raise financial awareness in Israel

The Banking Supervision Department has therefore adopted a policy that is meant to raise financial awareness, with the goal of reducing information gaps, improving economic welfare and raising awareness of customers' rights, among other things. In this context, it has decided to focus on a different population in Israeli society each year. The Banking Supervision Department operates programs to raise awareness by way of the Association of Banks and the banking system, since they possess expertise in these subjects and because their national distribution of branches provides access to the public.

1. Financial Awareness Week for customers of the banking system

In 2016, the Banking Supervision Department, by means of the Association of Banks and the banking system, organized Financial Awareness Week, which included workshops and lectures at dozens of bank branches throughout the country, from Dan to Eilat, which were attended by thousands of customers.

The event was intended to increase financial awareness among households and to provide them with basic financial knowledge and understanding. Its goal was to help customers manage their banking activity wisely and independently.

As part of the activities, tools for correct financial management were presented, as well as advanced digital platforms that allow customers to manage their accounts more efficiently. Personal guidance was provided on the banking “identity card” (an annual report to the customer) and detailed explanations were provided of the fee track service and those that were interested were signed up for it.

2. Financial Awareness Month for youth

The Banking Supervision Department’s directives state that an individual can open a bank account from age 14. According to the data reported by the banking system to the Banking Supervision Department, about 70,000 youth aged 14-18 open an account each year. The Department believes that youth should be provided with practical tools for financial management that will help them become more independent and achieve greater financial profit. To this end, it initiated the **Financial Awareness Month in the education system** in 2017, in collaboration with the Ministry of Education, the Forum of Municipal Parent Committees and the National Youth and Student Council and by means of the Association of Banks and the banking system.

A Financial Awareness Month took place in November 2017 and February 2018. During this period, financial classes were given to about 20,000 ninth grade students around the country. The talks were given at a level the youths could understand and using digital teaching aids. Practical and relevant tools for day-to-day financial/banking management were presented, with the goal of improving the students’ financial confidence in the long run. This included practical tools for becoming a discerning consumer, with emphasis on the importance of a market survey when opening a bank account (if there is a need to open one), negotiating with the bank, checking out discounts on bank fees and when they expire, etc. In addition, the classes covered budget management, savings, information on the banking system, basic financial concepts, familiarity with various means of payment, and more.

As in many of the developed countries, the classes were delivered by representatives of the banking system¹, and some Bank of Israel workers were also involved in the effort. All of the educational material was approved by the Ministry of Education, the Banking Supervision Department, the Forum of Municipal Parent Committees and the National Student and Youth Council. The material was translated into Arabic and uploaded to the Bank of Israel website in Hebrew and Arabic, in order to make it widely available.²

In order to ensure that the students assimilate the material, a special website was created for the activity and content was uploaded that is intended to help them and their family members during the activity and following it.

There was positive feedback from students and staff in the schools, which indicated that there is a thirst for financial education and that the classes indeed provided the students with practical and effective tools for financial-banking management.

¹ In this context, it is worth mentioning that bank representatives give financial education classes at schools in many countries, including the UK, Germany, Spain, Italy, France and others.

² Hebrew – <http://www.boi.org.il/he/ConsumerInformation/ConsumerIssues/Pages/FinancialEducation.aspx>
Arabic - <http://www.boi.org.il/ar-new/ConsumerInformation/ConsumerIssues/Pages/FinancialEducation.aspx>

The Banking Supervision Department attributes great importance to the introduction of financial education into the education system and following up on the classes given during the Financial Awareness Month, based on the foundations that were laid. The Banking Supervision Department will assist in the assimilation of the program within the education system, by way of banking system representatives.

In this context, it is worth mentioning that two legislative proposals on financial education in the education system have been tabled in the Knesset. The first proposal is **p/20/3556 – Proposed Financial Education Law, 5777–2016, proposed by MK Tamar Zandberg and others**, which was tabled on December 12, 2016. The proposal seeks to obligate an educational institution—from kindergarten up to high school—to include a curriculum that will increase financial literacy. The proposal was rejected by the Ministerial Committee for Legislation on May 21, 2017.

The second proposal is **p/20/4262 – Proposed State Education Law (Amendment - Acquisition of Financial Knowledge and Life Skills), 5777–2017, proposed by MK Aliza Lavi**, which was tabled on May 29, 2017. The proposal seeks to add two goals to those of public education in Israel: (1) acquisition of knowledge about basic financial concepts and bureaucratic processes, such as interest, credit facilities, pensions, salary benefits for continuing education, tax reconciliation, and so forth; and (2) provision of life skills that are suited to an evolving employment environment. The proposal has yet to be discussed in the Ministerial Committee for Legislation.

3. Digital education for senior citizens

The transition to the consumption of banking services via digital platforms, together with the reduction in the number of bank branches, is creating a challenge for populations that find it difficult to adjust to change.

Therefore, during 2018 the Banking Supervision Department is working **to advance digital education for senior citizens**, in collaboration with the Association of Banks and the banking system, among others. This includes the acquisition of tools through practical experience in order to improve the ability to use digital banking services. This will enable senior citizens to benefit from more accessible and cheaper banking services.

In this context, it is worth mentioning that in 2017, the OECD published a report entitled **“Ensuring Financial Education and Consumer Protection for All in the Digital Age”**.³ One motive for writing the report was that although the use of digital financial services has major advantages, and in particular greater convenience and lower cost, it is also liable to expose consumers to new threats, including risks of fraud, misuse of personal information and cyber crime. These threats are the result of, among other things, a lack of financial awareness and digital skills, a phenomenon that is common among weaker population groups, such as the elderly, the poor and residents of the periphery. The report also states that most of the financial education initiatives worldwide do not deal specifically with digital services, and only a few of them relate to the needs of weak population groups. The OECD emphasizes that initiatives are needed in order in order to assist these population groups in adapting to the digital environment and navigating the complicated world of digital financial products.

³ <http://www.oecd.org/finance/g20-oecd-report-on-ensuring-financial-education-and-consumer-protection-for-all-in-the-digi-#tal-age.htm>

Financial education worldwide

Many countries and international organizations have recognized the importance of financial education and have worked to assimilate it both among various sectors of the public and as a compulsory program in the education system.

1. Organizations

OECD: The OECD has a designated body called the International Gateway for Financial Education that is responsible for financial education in the member countries.⁴ In addition, it maintains the International Network on Financial Education (INFE), whose goal is to improve financial education in the member countries. The Network includes 240 governmental institutions, chiefly central banks, ministries of finance and securities authorities, from about 110 countries, which participate in working groups on financial education.

ECB: The European Central Bank maintains various platforms to provide financial education to youth and to the public in general, and it emphasizes the discussion of economic fundamentals and of inflation and price stability. The Bank disseminates information by means of its website⁵ and a series of games that can also be played on a smartphone, among other platforms.

2. Countries in which the central bank implements financial education programs

France: The central bank of France is responsible for formulating the national strategy for financial education and among its main tasks is the provision of financial education in order to improve financial skills and to make the subject of economics accessible to the public.⁶ During 2018, the central bank in France will launch a program intended to broaden and deepen the public's financial knowledge, particularly among the young. The program will explain the principles of correct financial management, by means of interactive tools, among other methods.

Spain: During the 2013–17 period, Spain implemented a national financial education program in collaboration with the Ministry of Education, the central bank of Spain and the securities authority. The program included classes and guidance at educational centers, with the volunteer participation of bank employees.⁷

3. Countries that integrate financial education as a compulsory program within the education system

Many countries include financial education as a compulsory program in the education system

England: In September 2014, financial education became part of the national curriculum in civics for the 11–16 age group, and in schools that are financed by the local authority the program is compulsory.⁸ The program is divided according to age group: the 11–14 age group learn what money is, how to use it

⁴ http://www.financial-education.org/join_INFE.html

⁵ <https://www.ecb.europa.eu/ecb/educational/html/index.en.html>

⁶ <https://www.banque-france.fr/en/banque-de-france/corporate-social-responsibility/educational-and-cultural-commitment/economic-and-financial-education>

⁷ https://www.cnmv.es/DocPortal/Publicaciones/PlanEducacion/PlanEducacion13_17.pdf

⁸ <http://researchbriefings.files.parliament.uk/documents/SN06156/SN06156.pdf>

and why it is important to monitor one's budget; the 14–16 age group learn about managing income and expenditure, debits and credit, insurance, savings and pension, various financial products and services and the manner in which the government budget is allocated. An all-party parliamentary committee published a report in 2016⁹ that called for the expansion and reinforcement of the financial education program in English schools.

Spain: Since 2011, it has been compulsory to provide 10 hours of financial education to eleventh grade students.¹⁰

Denmark: Since 2015, the curriculum for the 13–15 age group includes an obligatory section on financial literacy.¹¹

Czech Republic: Since 2015, the curriculum for seventh and eighth grades includes a compulsory section on financial education.¹²

Finland: Since 2016, there is a compulsory financial education program.¹³

⁹ <https://www.pfeg.org/sites/default/files/APPG%20on%20Financial%20Education%20for%20Young%20People%20-Final%20Report%20-%20May%202016.pdf>

¹⁰ <http://finanzasparatodos.es/>

¹¹ <http://www.pengeuge.dk/Pages/Forside.aspx>

¹² <http://www.psfv.cz/>

¹³ <http://www.keepitrolling.fi/>

Box 3.2**The Banking Supervision Department's Activity Regarding Corporate Governance in the Banking System****Abstract**

- Corporate governance is the foundation of proper conduct of financial institutions in general, and of banking corporations in particular. Its goal is to maintain the stability of the banking system and of depositors' funds, and to protect the system's customers and the public in general. Corporate governance deals with, among other things, supervision and control, risk management, compliance with legislation and regulation, and organizational culture. Adequate corporate governance promotes appropriate exposure to risks and a high level of compliance, while paying close attention to appropriate decision making processes and challenging management and decision makers. It is reflected primarily in the proper conduct of the corporation's functions and gatekeepers—the Board of Directors, the External Auditor, the Internal Audit, the Chief Risk Officer, the General Counsel, the Chief Compliance Officer, and the Chief Accountant. In recent years, public interest in corporate governance has increased, so this survey of such activity is being published, as part of the the Banking Supervision Department's policy of enhancing transparency.
- Over the years, the Banking Supervision Department has placed particular emphasis on strengthening the corporate governance regime in Israel's banking system, through a range of supervisory tools, such as regulation (publishing Proper Conduct of Banking Business Directives that are binding on the banking system), ongoing supervision, examinations at banking corporations, and enforcement measures. Leading international entities, such as the IMF, have expressed high regard for the Banking Supervision Department's activity in general, and in the area of corporate governance in particular, in examinations they have conducted at the Banking Supervision Department. Domestic entities that deal with the sector also consider the banking system's corporate governance regime the most developed and regulated of all businesses in Israel.
- While regulation activity is inherently public, on-site examination activity is not publicized. This work method, which is characteristic of leading regulators worldwide, is backed by law, and is necessary in order to maintain the effectiveness of the supervision, as it ensures the Banking Supervision Department unfettered access to the banks' core business operations and full cooperation by the supervised entities.

In the area of regulation, the Banking Supervision Department has consistently held corporate governance in the banking system at the forefront of its attention throughout the years of its activity. From many perspectives, the standards set by the Banking Supervision Department were pioneering compared with the regulation and legislation regarding other public companies. Documentation of this appears back in 1973, with the publication of the first Directive regulating aspects of corporate governance in the work of a banking corporation's Board of Directors, imposing requirements beyond what was required by the law in general. The importance of corporate governance became extremely clear following the 1983 bank shares crisis, and since the late 1980s more than 50 regulation actions have been published, setting standards in the field, including approximately 20 updates and changes

in the Directive regarding the Board of Directors. As of today, at least 13 Proper Conduct of Banking Business Directives deal directly with corporate governance, and three of them deal with, among other things, preventing conflicts of interest. The regulation directives, as well as additional activities by the Banking Supervision Department, establish detailed requirements regarding the corporate governance regime, adding to—and to a large extent increasing the strictness of—the provisions of the law. In the past year, the Banking Supervision Department again revised the Directive dealing with the Board of Directors, in order to strengthen the effectiveness of that function.

- Examinations are an effective tool for ensuring compliance with the requirements of corporate governance and for strengthening it: Documentation of the Banking Supervision Department's activities since the end of the 1990s indicates that more than 110 designated examinations have been carried out in the banking system on the issue of corporate governance. Of those, more than 30 examinations dealt with the board of directors and its committees, approximately another 30 concentrated on the internal audit, and at least 15 examined anomalous events that are relevant to corporate governance. In addition, findings in the area of corporate governance often come up in examinations carried out in other areas. For example, preventing conflicts of interest came up in examinations on the issue of credit risks as well.
- Enforcement and sanctions: In the banking system, like in any other system, supervision and control—as intensive as they may be—are not enough to totally avoid instances of failure. The Banking Supervision Department locates and deals strictly with failure events in the area of corporate governance. In the past decade, in at least 16 cases, the Banking Supervision Department's intervention led to banking corporations terminating the tenure of officers, executives, or senior advisors, or preventing their promotion, or their service in gatekeeper positions, due to findings of weakness in corporate governance or due to concern of potential conflicts of interest. Often, intervention by the Banking Supervision Department does not reach the imposing of enforcement powers or sanctions under the law, because the banking system is characterized by a high level of compliance and rapid responses by the banks to correcting deficiencies based on the Banking Supervision Department's requirements. When concern arises of a criminal offense being committed, the Banking Supervision Department transfers material to prosecutors or the police for consultation, examination, or investigation as relevant.
- The Fit and Proper process as a tool for ensuring the quality of corporate governance. The appointment and extension of the term of a considerable portion of bank senior officers is subject to the approval of the Banking Supervision Department, in accordance with its authority under the law.¹ The Banking Supervision Department's requirements set a strict threshold for expectations in terms of the qualifications and integrity of the candidates for those positions. If a banking corporation's preliminary examination regarding a candidate meeting the threshold indicates that there will be a difficulty in the Banking Supervision Department's approval of the candidate, no request will be submitted at all. Nonetheless, in approximately 3 percent of the requests that were examined by the Banking Supervision Department in the past 3 years, the candidacy was withdrawn during the discussion of the request, by the bank or by the candidate. In addition, in approximately 20 percent of

¹ Section 11a(h)(1) of the Banking Ordinance.

the requests submitted in the past 3 years, the approval was made contingent on various stipulations aimed at, among other things, preventing conflicts of interest.

- The importance of corporate governance was also emphasized within the framework of ongoing work: In the Supervisory Review and Evaluation Process (SREP), the Banking Supervision Department assesses, among other things, the appropriateness of the corporate governance regime at each bank, including the quality of the functioning of the Board of Directors, management, and the various gatekeepers—at the function level and at the personnel level. As a result of this process, the Banking Supervision Department presents requirements for rectifying deficiencies, including the improvement of corporate governance. Thus, for example, weaknesses in corporate governance can lead to the Banking Supervision Department requiring that a bank increase its capital adequacy.

Background

Corporate governance is the foundation of proper conduct by financial institutions in general, and by banking corporations in particular. Corporate governance deals with, among other things, supervision and control, risk management, compliance with legislation and regulation, and organizational culture. It is reflected primarily in the proper conduct of the corporation's functions. Special emphasis is placed on the functioning of the gatekeepers—the Board of Directors, the External Auditor, the Internal Audit, the Chief Risk Officer, the General Counsel, the Chief Compliance Officer, and the Chief Accountant. Over the years, the Banking Supervision Department has worked to strengthen corporate governance in Israel's banking system through a range of supervisory tools, such as regulatory directives, examinations, and enforcement measures. In recent years, public interest in corporate governance has increased, so this survey of such activity is being published, as part of the the Banking Supervision Department's policy of enhancing transparency.

The Banking Supervision Department's work, which was formulated and refined over many years of experience and learning, has improved the quality of corporate governance in the banking system, and has thus contributed to business activity in the economy.² For example, the activity of the Banking Supervision Department in this area was awarded the highest ranking—compliant—in the assessment process conducted by the IMF in 2012.³ Among other things, the report emphasized that the Banking Supervision Department has a designated team for examining corporate governance:

“The Banking Supervision devotes a lot of work to the assessment of risk-management processes in on-site and off-site examinations. On the one hand, the On-Site Division has teams that specialize in specific risks (credit risk, market and liquidity risks, operational risk and compliance risk), and examine the risk-management processes in their respective risk areas. In addition, a dedicated on-site team for corporate governance reviews various aspects of examination proceedings, including latitudinal processes

² According to assessments of corporate governance at public companies that were recently published, the banking corporations have a relatively high level of corporate governance compared to other public companies.

³ “Israel: Detailed Assessment of Observance of Basel Core Principles for Effective Banking Supervision”, International Monetary Fund, April 2012. Principle 7- Risk management process: “Supervisors must be satisfied that banks and banking groups have in place a comprehensive risk management process (including Board and senior management oversight) to identify, evaluate, monitor and control or mitigate all material risks and to assess their overall capital adequacy in relation to their risk profile.”

associated with risk management. On the other hand, the assessment of risk management processes is an important component of off-site ongoing surveillance, in particular in the ICAAP-SREP framework”.

In an examination carried out for the Banking Supervision Department by the IMF in June 2016⁴, it was established that, among other things, the Banking Supervision Department’s work processes exceed, in many areas, the standard practices in other advanced economies:

“Banking Supervision in Israel follows a very rigorous and comprehensive approach. Supervisory practices at the Banking Supervision Department at Bank of Israel parallel, and at time exceed in many respects, the standard practices observed in other developed countries, both in scope of regulation, and the intensity and depth of risk assessments. This explains the Bank of Israel’s success in maintaining financial stability during the global financial crisis, and has resulted in substantial benefits to the Israeli economy and its society as a whole.”

Channels of activity by the Banking Supervision Department in the area of corporate governance:

Over the years, the Banking Supervision Department has worked intensely to strengthen the corporate governance regime in Israel’s banking system through a range of supervisory tools such as regulation, ongoing supervision, examinations, licensing, enforcement, and sanctions, as detailed in short below.

Regulation

The Banking Supervision Department has consistently held corporate governance in the banking system at the forefront of its attention throughout the years of its activity. Documentation of this appears back in 1973, with the publication of the first Directive regulating aspects of corporate governance in the work of a banking corporation’s Board of Directors, imposing requirements beyond what was required by the law in general, because “the Board of Directors is the cornerstone of the banking institution’s system of management”.⁵ The importance of corporate governance became extremely clear following the 1983 bank shares crisis, and since the late 1980s more than 50 regulation actions have been carried out⁶ (see details in the Appendix), setting standards in the area of corporate governance⁷, of which approximately 20 are updates to the Directive regarding the Board of Directors. This is without taking into account specific corporate governance regulations in directives that deal with the management of various risks. The updates to Proper Conduct of Banking Business Directives in general, and the directives dealing with corporate governance in particular, are due to changes in the law, changes in international regulation, and the constant learning process at the Banking Supervision Department. In the past year, the Banking Supervision Department again amended the Directive dealing with the Board of Directors in order to strengthen the effectiveness of the board. Among other revisions, the number of directors was reduced in order to improve the quality of the discussion, the number of issues that are to be brought to a plenary

⁴ Technical Assistance Report, Consultations on the Work of the Banking Supervision Department of the Bank of Israel, International Monetary Fund, June 2016.

⁵ Bank of Israel, Laws and Directives, “Work process of the board of directors at a banking institution”.

⁶ Regulation is carried out through publication of Proper Conduct of Banking Business Directives. In addition, the Banking Supervision Department publishes files of questions and answers, circulars, and letters clarifying its positions.

⁷ The directives defining the gatekeepers’ functions or indirectly discussing them and the interrelationships among them.

discussion was reduced in order to ensure deep discussion and appropriate challenges in material decisions, and a requirement was included to establish a policy regarding the maximum term of the board's chairperson, with the approach that refreshing the composition contributes to effectiveness.

There are currently at least 13 Proper Conduct of Banking Business Directives that deal directly with corporate governance.⁸ These directives regulate the main functions at banking corporations⁹, how they are operated, the interfaces among them, between them and management and between them and the board, as well as the manner of compensating office holders, senior managers and the gatekeepers. The Proper Conduct of Banking Business Directives regarding corporate governance set detailed requirements for the corporate governance regime, which at times exceed the standard set in the Companies Law. For example, with the goal of strengthening the board's independence, it was already set out many years ago that the controlling owner of a bank or a relative thereof shall not serve as the board's chairperson, though there is nothing to prevent that under the general law or at other public companies. Another example is the strict directives related to the composition of the board, and the qualification requirements of those serving as directors. Additional directives, besides those noted above, refer as well to corporate governance in the management of specific risks, and establish various risk management and control functions: Credit Risks Officer, Operational Risk Officer, Head of Information Security, Head of Cyber Protection, and others.¹⁰

Three directives deal, among other things, with preventing conflicts of interest among office holders and managers at the banking corporation: Directive no. 301 on the Board of Directors, Directive no. 312 on Banking Corporation Business with Related Parties, and Directive no. 360, on Rotation and Uninterrupted Vacation. In accordance with these directives:

- The Board of Directors is required to outline ways to deal with the issue of conflicts of interest; directors and office holders are required to declare any conflicts of interest in any transaction in which they have a personal interest; and they are prohibited not only from participating in discussions and making decisions, but from receiving any information about the transaction.
- There are various limitations imposed on a banking corporation's transactions with "related parties", and strict procedural rules are set for the discussion and decision making in such transactions.
- In sensitive positions in which, among other things, a personal relationship can develop with a customer or supplier, the bank is required to implement a rotation among the position holders, in order to prevent activity that is a conflict of interest. This requirement was added due to the lessons learned from the "Trade Bank" episode.

These provisions add to, and at times increase the strictness of, the general provisions of the law, which itself sets a long list of prohibitions and offenses in the area of conflicts of interest. The provisions dealing with preventing conflicts of interest among officers at banking corporations can be found both in general legislation (the Companies Law and the Securities Law), and in banking legislation (the Banking

⁸ 301, 301A, 302, 303, 304, 304A, 305, 306, 307, 308, 308A, 309, 310, and 311.

⁹ Board of Directors, Internal Audit, External Auditor, Chief Accountant, Chief Risk Officer, Compliance Officer, and Ombudsman.

¹⁰ 311, 312, 350, 257, and 361.

Ordinance). Severe cases of activity conducted with a conflict of interest are liable to reach the point of breach of trust at the corporation, which is a criminal offense and defined as embezzlement.

Examination

Corporate governance has been given intense attention in examinations. The Banking Supervision Department conducts examinations in the areas of corporate governance and internal audit through the Corporate Governance and Control Unit (which has operated within the Banking Supervision Department for many years), and through other examination units during examinations of the management of specific risks. In the past two decades, more than 110 designated examinations have been carried out in the banking system on the issue of corporate governance and control. Of those, more than 30 examinations dealt with the Board of Directors and its committees, and about 30 others concentrated on the issue of internal audit. Likewise, at least 15 anomalous events relevant to corporate governance were examined. In addition, the corporate governance regime is examined on an ongoing basis within the framework of the management of various risks, which is carried out over many dozens of examinations focused on various risk areas—such as credit (including transactions with related parties), market, liquidity, compliance, and operational risks.

A central component in strengthening corporate governance is preventing the existence of conflicts of interest among officers and senior managers at the corporation. This issue comes up in a range of examination areas, including examination of the Board of Directors, fraud (activity conducted at a severe enough level of conflict of interest can reach the level of fraud under the law), related-party transactions, internal audit, and the management of various risks, such as credit risks. To the extent that in the examination process, concern arises of activity conducted with a conflict of interest, which is liable to reach the level of a criminal offense, the Banking Supervision Department passes on the information, after appropriate consultations and with the authorization of the Governor of the Bank of Israel, to the Israel Police and prosecutors for investigation and evidence gathering through investigative tools that are available to them (and not to the Banking Supervision Department).

Supervision and monitoring and the supervisory review process

In the Supervisory Review and Evaluation Process—SREP (the ongoing monitoring of the development of various risks and establishing the overall risk profile of each banking corporation), the Banking Supervision Department conducts an ongoing assessment of the adequacy of the corporate governance regime at each bank, including the functioning of the Board of Directors, management, and the various gatekeepers—at the function level and at the personnel level. The main outcomes of the supervisory review process are Banking Supervision Department requirements for rectifying deficiencies, including the improvement of the corporate governance regime and the control environment.

Authorization of the appointment and reappointment of an office holder

The Fit and Proper process is an additional tool for ensuring the quality of corporate governance. In accordance with the law, the appointment and extension of the term of a considerable portion of high-ranking office holders at banking corporations—directors, CEOs, internal auditors, legal counsel and seven other officers—are subject to the approval of the Banking Supervision Department.¹¹ The Banking Supervision Department has the authority, subject to consultation with the licenses committee, to oppose an appointment in view of considerations related to a candidate's professional qualifications and those related to integrity, including the prevention of conflict of interest.¹²

The Banking Supervision Department's requirements set a strict threshold in terms of the qualifications and integrity of the candidates submitted by the banking corporations. Prior to the submission of a request to approve an appointment or renewal of a term, preliminary checks are carried out by the banking corporations regarding the candidate's fulfillment of the threshold conditions. If the banking corporation is of the view that there will in fact be a difficulty in the Banking Supervision Department's approval of the candidate, no request will be submitted at all. Nonetheless, in approximately 3 percent of the requests that were examined in the past 3 years, the candidacy was withdrawn during the discussion of the request, by the bank or by the candidate. In addition, in approximately 20 percent of the requests submitted in the past 3 years, the approval was made contingent on various stipulations aimed at, among other things, preventing conflicts of interest, ensuring compliance with the requirements of the law or professional training, and ensuring that the candidate is available to fill the role, including through requirements to cease functioning in or ending service in a position.

Effectiveness of supervision

The policy and main activity of the Banking Supervision Department, through all its divisions, is focused on the earliest possible identification of deficiencies that are liable to lead to violations of the law or regulation by the banking corporation or to practices that are liable to endanger stability or to negatively impact customers and the public, and on taking early action, before they develop into significant risks. The Banking Supervision Department passes on the findings that it has identified to banks' management and directors, in an ongoing manner, and they are required to rectify them in a reasonable amount of time, in accordance with the circumstances. In most cases, the banks accept the Banking Supervision Department's position and carry out the required changes, such that the Banking Supervision Department has considerable ability to rectify deficiencies within a short period of time, without having to resort to the use of enforcement tools or sanctions set out in law.¹³ Obviously the existence of sanctions in the law strengthens the deterrent power of the Banking Supervision Department, and as a result their

¹¹ Section 11a(h)(1) of the Banking Ordinance.

¹² If new or additional details are discovered after the appointment, the Banking Supervision Department is permitted to order the termination of the tenure.

¹³ Formal enforcement activities are inherently more drawn out and complex. They are required in exceptional cases: when the Banking Supervision Department's work process via examination and monitoring is not enough to have an impact on the bank's level of compliance; when deficiencies are not rectified; when the deficiencies are severe and are a risk to the public; and in cases in which concern arises that a crime has been committed. See also Bank Enforcement Actions and Related Matters, PPM 5310-3 <https://www.occ.treas.gov/news-issuances/bulletins/2017/ppm-5310-3.pdf>.

actual use is needed on only rare occasions. This manner of activity strengthens the effectiveness of the Banking Supervision Department in rapidly reducing risks and preventing harm. Therefore, the Banking Supervision Department has a wide range of supervisory means, from activities such as sending a real-time message or letter of requirements of the banking corporation, through imposing severe sanctions under the law, to the extent of cancelling a bank's license. The supervisory means are in line with the level of risk or level of severity of the deficiency.

In the banking system, like in any other system, supervision and control—as intensive as they may be—are not enough to totally avoid instances of failure. The Banking Supervision Department locates and deals strictly with failures in the area of corporate governance at the corporate and personal levels. The following are some examples:

- In some cases, the Banking Supervision Department, after appropriate consultations and with the consent of the Governor of the Bank of Israel, transfers material to the Israel Police or to prosecutors for investigation and evidence gathering through the investigative tools that are available to them (and not to the Banking Supervision Department) due to concern of a criminal offense being committed by officers at the banking corporations.
- In the past decade, in at least 16 cases, the Banking Supervision Department's intervention led to banking corporations terminating the tenure of officers, managers, or senior advisors, or preventing their promotion or their service in gatekeeper positions, due to findings of weakness in corporate governance or due to concern of the potential for conflicts of interest. These results were attained even before the Banking Supervision Department had to impose the sanctions set forth in the law. In less severe cases, the Banking Supervision Department suffices with a warning and sending a stern message, with a requirement to cease the inappropriate conduct.
- When needed, the Banking Supervision Department increases the strictness of capital requirements or prohibits the distribution of a dividend in specific cases in which it identifies a decline in the effectiveness of the corporate governance regime. These requirements are effective and lead to rapid rectification of the deficiencies found.
- At times, the Banking Supervision Department sets specific requirements for strengthening the corporate governance regime—for example, requirements to change the composition of directors, the board, or committees, adding external directors, or requirements for a comprehensive examination of the potential for personal or industry-specific conflict of interest, including through legal opinions.

Classification and confidentiality

Similar to the work methods of leading regulators worldwide¹⁴, a considerable part of the Banking Supervision Department's activity is not public. The classification and confidentiality that apply to the work of the financial regulator are central tools in its work, and they are necessary to ensure effective supervision of the banking system by providing the Banking Supervision Department with unfettered

¹⁴ For illustration, in the US there is broad confidentiality regarding the information that passes between regulators and the supervised entities (bank-examiner privilege), which ensures full transparency in the supervisory process—a condition for effective supervision.

access to the core business activity of the banks and ensuring full cooperation by the supervised entities. In addition, classification and confidentiality rely on the approach that the financial system is particularly sensitive to shocks, with the possibility of contagion from a shock at one banking corporation spreading to other financial institutions, or even to the overall system. The “contagion” effect is recognized in the professional literature as a feature unique to the financial system, particularly after the economic crisis of 2008. With that, if a sanction is imposed using the powers set out in the law, it is reported in accordance with the case.¹⁵ It is important to emphasize that banks are obligated to fulfill all the disclosure requirements that apply to public companies, and even more so—the Banking Supervision Department imposes additional strict disclosure requirements on them and examines their compliance with these requirements on a regular basis.

Some of the enforcement measures and sanctions become known to the public through the disclosure requirements that are imposed on the banking corporations.

¹⁵ Among certain regulators, it is customary to differentiate between formal public enforcement activities and informal, nonpublic activities. The former include formal orders to impose fines and sanctions and formal dismissal of officers. The informal activities achieve rectification of deficiencies without the need for imposing statutory sanctions, and they include individual capital adequacy requirements, various commitments or agreements, and requirements and conditions established in various letters. See Bank Enforcement Actions and Related Matters, PPM 5310-3 <https://www.occ.treas.gov/news-issuances/bulletins/2017/ppm-5310-3.pdf>.

Appendix: Details of the main directives regarding the corporate governance regime

All the directives and circulars can be viewed on the Banking Supervision pages of the Bank of Israel website.

	Directive name	#	Original/materially revised directive	Circular #	Date
1	Board of Directors	301	Original circular 301	1210	Sept. 13, 1985
2	Communication of External Auditor with Those Charged with Governance in the Banking Corporation	303	Original circular	1289	Feb. 15, 1987
3	Board of Directors	301	Revision	1394	Jan. 11, 1989
4	Board of Directors	301	Revision	1412	June 19, 1989
5	Banking Corporation Business with Related Parties	312		1508	March 10, 1991
6	Board of Directors	301	Revision	1582	July 21, 1992
7	Board of Directors	301	Revision	1609 1606	Nov. 8, 1992
8	Communication of External Auditor with Those Charged with Governance in the Banking Corporation	304 301 303	Revision	1615	Jan. 3, 1993
9	Banking Corporation Business with Related Parties	312	Revision	1882	Aug. 3, 1997
10	Board of Directors	301	Revision	1616 1615	Jan. 3, 1993
11	Board of Directors	301	Revision	1739	Jan. 21 1995
12	Banking Corporation Business with Related Parties	312	Amendment	1933	June 30, 1998
13	Board of Directors	301	Revision	1928	June 21, 1998
14	The External Auditor of a Banking Corporation	302	Original directive (separated from 301)	1928	June 21, 1998
15	Chief Accountant	305	Original directive	1935	July 21, 1998
16	Board of Directors	301	Revision	2021	Jan. 10, 2001
17	The External Auditor of a Banking Corporation	302	Revision	2022	Jan. 10, 2001
18	Board of Directors	301	Revision	2038	Aug. 22, 2001
19	Compliance and the Compliance Function in a Banking Corporation	308	Original directive	2064	Jan. 17, 2002
20	The External Auditor of a Banking Corporation	302	Revision	2089	Nov. 12, 2002

21	Board of Directors	301	Revision	2122	Nov. 30, 2003
22	The External Auditor of a Banking Corporation	302	Revision	2144	Nov. 15, 2004
23	Communication of External Auditor with Those Charged with Governance in the Banking Corporation	303	Revision	2145	Nov. 30, 2004
24	Board of Directors	301	Revision	2161	Feb. 28, 2005
25	The External Auditor of a Banking Corporation	302	Revision	2212	Sept. 25, 2007
26	Communication of External Auditor with Those Charged with Governance in the Banking Corporation	303	Revision	2233	April 27, 2008
27	Controls and Procedures Relating to Disclosure and Internal Control over Financial Reporting	309	Original directive	2239	Sept. 28, 2008
28	The External Auditor—Performing Audits and Reviews in Accordance with Certain US Standards	304A	Original directive	2242	Feb. 11, 2009
29	Communication of External Auditor with Those Charged with Governance in the Banking Corporation	303	Revision	2264	March 10, 2010
30	Banking Corporation Business with Related Parties	312	Revision	2287	Oct. 19, 2010
31	The External Auditor—Performing Audits and Reviews in Accordance with Certain US Standards	304A	Revision	2272	July 8, 2010
32	The External Auditor—Performing Audits and Reviews in Accordance with Certain US Standards	304A	Revision	2298	Apr. 3, 2011
33	Board of Directors	301	Revision	2313	Nov. 6, 2011
34	Board of Directors	301	Revision	2320	Dec. 25, 2012
35	Board of Directors	301	Revision	2332	Apr. 30, 2012
36	Risk Management	310	Original directive	2356	Dec. 23, 2012
37	Board of Directors	301	Revision	2355	Dec. 31, 2013
38	The External Auditor—Performing Audits and Reviews in Accordance with Certain US Standards	304A	Revision	2370	Feb. 17, 2013
39	Remuneration Policy in a Banking Corporation	301A 301	Original directive	2403	Nov. 19, 2013
40	Board of Directors	301	Revision	2405	Dec. 25, 2013

41	Internal Audit Function	307	Original directive	2320	Dec. 25, 2013
42	The External Auditor—Performing Audits and Reviews in Accordance with Certain US Standards	304A	Revision	2410	Jan. 28, 2014
43	Banking Corporation Business with Related Parties	312	Revision	2425	July 10, 2014
44	Board of Directors	301	Revision	2421	May 26, 2014
45	Board of Directors	301	Revision	2425	July 10, 2014
46	Handling of Public Complaints	308A	Original directive	2434	Sept. 30, 2014
47	Compliance and the Compliance Function in a Banking Corporation	308	Revision	2459	June 3, 2015
48	Board of Directors	301	Revision	2476	June 29, 2015
49	Internal Audit Function	307	Revision	2476	June 29, 2015
50	Banking Corporation Business with Related Parties	312	Revision	2516	Sept. 29, 2016
51	Remuneration Policy in a Banking Corporation	301A	Revision	2484	Aug. 13, 2015
52	Remuneration Policy in a Banking Corporation	301A	Revision	2514	Sept. 29, 2016
53	Board of Directors	301	Revision	2535	July 5, 2017
54	Supervision of Overseas Branches	306	Original directive	2561	April 24, 2018

Box 3.3**Tightening of restrictions on credit to large borrowers and its implications for credit concentration**

- Changes in Banking Supervision regulations and in legislation, as well as the reforms carried out during the last decade, have led to changes in the concentration of the Israeli economy, to a significant drop in credit provided by the banks to large business groups and large borrowers and to a more balanced distribution of credit to all borrowers in the banking system, namely households, small and micro businesses, midsized businesses and large businesses.
- The Banking Supervision Department has during the last decade worked with determination and has made use of a number of tools in order to improve the processes for the management of credit by the banks and has taken major steps to reduce the concentration of credit. The tools have included regulations applying to the banking system (Proper Conduct of Banking Business Directives), audits that relate to specific lenders and the management of credit in general, the raising of capital requirements, etc. In this box, we will focus on the regulations published by the Banking Supervision Department in recent years with the goal of reducing credit to large borrowers and improving the management of credit risk.
- The Banking Supervision Department has consistently worked to limit credit to large borrowers and the restrictions put in place have even exceeded international standards. A variety of quantitative restrictions put in place and later made more stringent during the period 1998–2015 are described below. These directives limit the scope of credit to a single borrower and to a group of borrowers and limit the loss that a bank will incur in the case of a sudden failure. Due to the directives issued by the Banking Supervision Department, the exposure to a single borrower or group of borrowers in any bank in Israel does not endanger its stability nor that of the banking system as a whole.
- Furthermore, in 2012 Banking Supervision published a directive requiring the banks to create an independent position in their business units whose function is to evaluate credit risk. This officer of the bank is deeply involved in credit decisions and in any approval of significant credit exposure. The directive was intended to support proper credit decision making and to minimize conflicts of interest.
- In addition, Banking Supervision has increased capital requirements for credit that the banks provide to large businesses and at the same time has reduced the requirements for retail credit. As a result, banking activity has grown in the household sector and in the small and micro business sector, which are characterized by a high level of dispersion and a relatively low correlation between them. Meanwhile, credit to large borrowers has declined by tens of billions of shekels, which has reduced the risk arising from borrower concentration.
- In view of these changes, there has been a significant and continuous decline during the last decade in the concentration of the bank credit portfolio, and today the banks are providing less credit to large borrowers. The share of credit to the 100 largest borrowers within the total credit portfolio has fallen from about 17 percent in 2007 to only about 10 percent in 2017; the share of large borrowers in total credit of the banks has fallen significantly, from about 529 percent in 2008 to only about 53 percent in 2017; and the total credit to the 10 largest borrowers has

dropped by about NIS 67 billion (before write-offs and provisions; about 39 percent) during that same period. Some of the reduction in credit to large borrowers is due to the decrease in credit for financing the means of control, a very risky type of credit, and in recent years the banks have been financing fewer transactions of this type.

- Although there has been a great deal of regulatory tightening, the Bank of Israel feels that credit to the business sector is essential to the expansion of the economy and to its growth and therefore it is important that the banks continue to provide this type of credit, though in a wise manner, alongside the credit provided by institutional bodies.

1. Background

The Banking Supervision Department has utilized many tools over the years in order to improve the processes of credit management in the banks and has taken significant steps to reduce the exposure to large borrowers and large business groups. At the same time, legislative changes and reforms¹ have been instituted, public committees have been set up and changes have occurred in public opinion – all of which has contributed significantly to the shaping of the Israeli economy’s structure and to the reduction in concentration. The steps taken by Banking Supervision include: a systematic and comprehensive revision of the directives governing credit; maintaining evaluation and review processes for each and every bank with the goal of examining risk management processes and corporate governance; participation in relevant interministerial committees²; and carrying out periodic and focused audits of credit to large and leveraged borrowers. The banks have also acted, and are continuing to act, to reduce exposure to concentration risk on various levels, including the reduction of exposure to large borrowers, the assimilation of lessons learned from past credit failures and the expansion of the proportion of credit to small businesses and to households within the credit portfolio.

2. The reduction in exposure to large borrowers and the tightening of relevant supervisory restrictions

1. The reduction in concentration relative to the credit portfolio

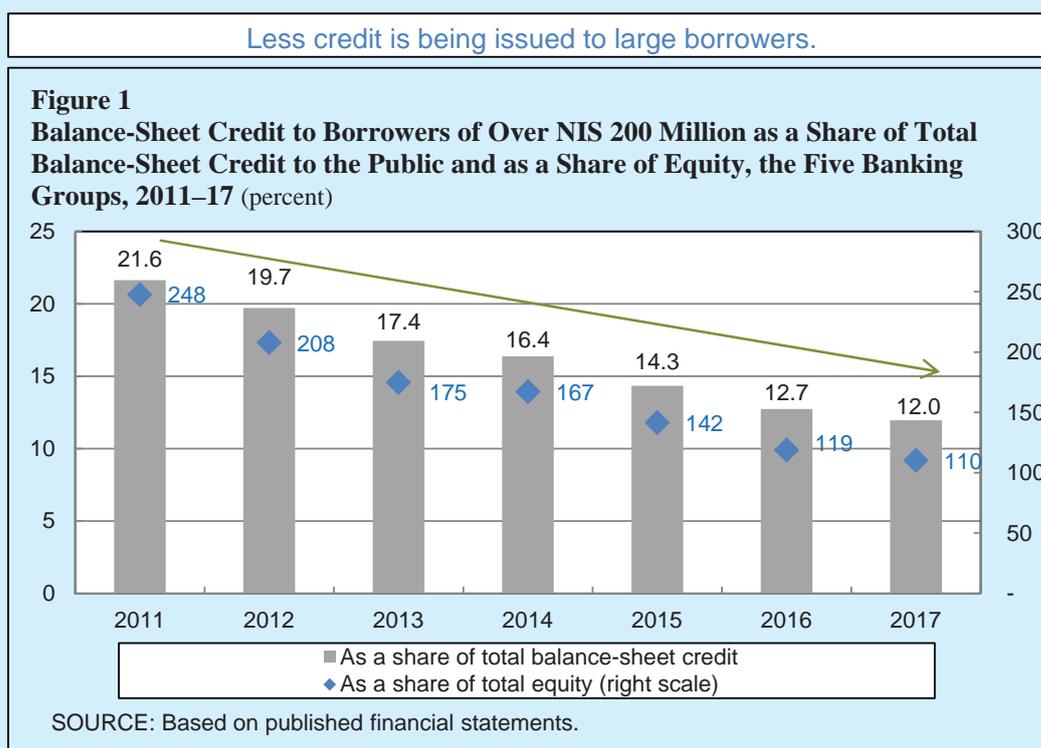
The trend in the share of large borrowers within the total credit portfolio shows that the exposure to this type of credit has fallen significantly and the banking system is currently providing them with much less credit than in the past (Figure 1). During the last decade, the share of the 100 largest borrowers in the total credit portfolio has declined from about 17 percent in 2007 to only about 10 percent in 2017 (Figure 2). At the same time, large businesses have expanded the credit they receive from financial institutions, from the local capital market and from various sources abroad. The quantity of non-

¹ The Law for the Promotion of Competition and the Reduction of Concentration, 5774–2013. Among other things, this law placed restrictions on the control of business groups with a pyramidal structure and imposed conditions and limits on the holding of a major financial body and a non-financial corporation by a controlling shareholder.

² The Committee for Increasing Competition in the Economy (the “Concentration Committee”), 2010; the Committee for Debt Restructuring, 2013; the Committee to Increase Competition in Common Banking and Financial Services (the Strum Committee), 2016.

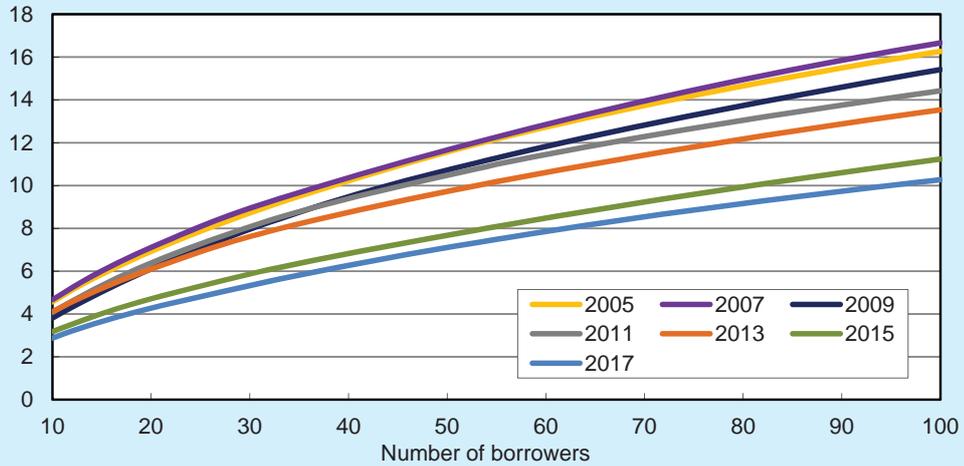
bank credit to businesses has grown during the period being reviewed by over NIS 100 billion and has become the major source of financing for the business sector (Figure 3).

These changes have also led to a more balanced distribution of bank credit to the public. During the previous decade, the banks clearly preferred to provide credit to large business borrowers at the expense of smaller ones. As a result of the changes that have occurred in the economy and in regulation, including the tightening of supervisory capital requirements that apply to credit to large borrowers, the number and scope of large loans to a single borrower have declined significantly. To illustrate, the proportion of credit to borrowers whose debt exceeds NIS 200 million has fallen from about 22 percent in 2011 to 12 percent in 2017 (Figure 1).



There is a significant continued decline in credit to the hundred largest borrowers.

Figure 2
Total Credit Risk^a of the Hundred Largest Borrowers^b as a Share of Total Credit Risk, the Five Banking Groups, 2005–17 (percent)



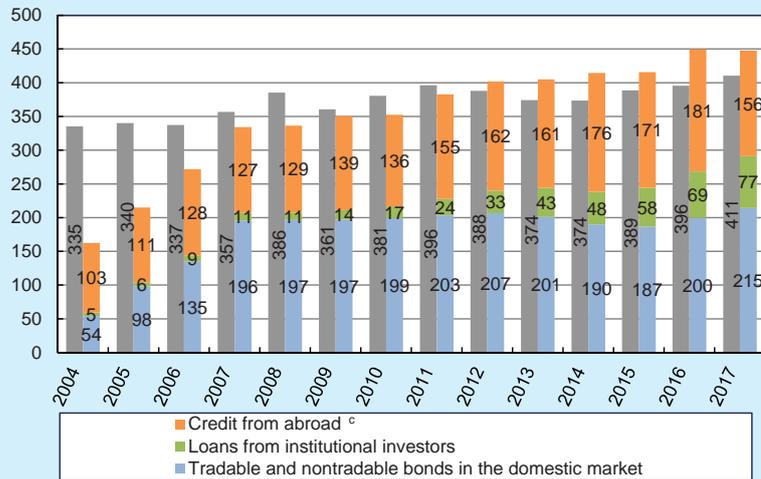
^a Total credit risk is comprised of balance-sheet credit and off-balance-sheet credit before write-offs and after provisions. Until 2010, the data relate to net credit (balance-sheet and off-balance-sheet credit after write-offs and provisions).

^b The large borrowers do not include banking corporations.

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

In the past decade, the business sector has raised more than NIS 100 billion in the nonbank market.

Figure 3
Bank^a and Nonbank Credit^b in the Business Sector, 2004–17 (NIS billion)



^a Estimated credit from the borrowers' point of view: Debt that the borrowers must repay is equal to bank credit before loan loss provisions, and tradable and nontradable bonds are equal to the adjusted par value.

^b Total banking system.

^c Credit from abroad includes suppliers' credit.

SOURCE: Bank of Israel calculations.

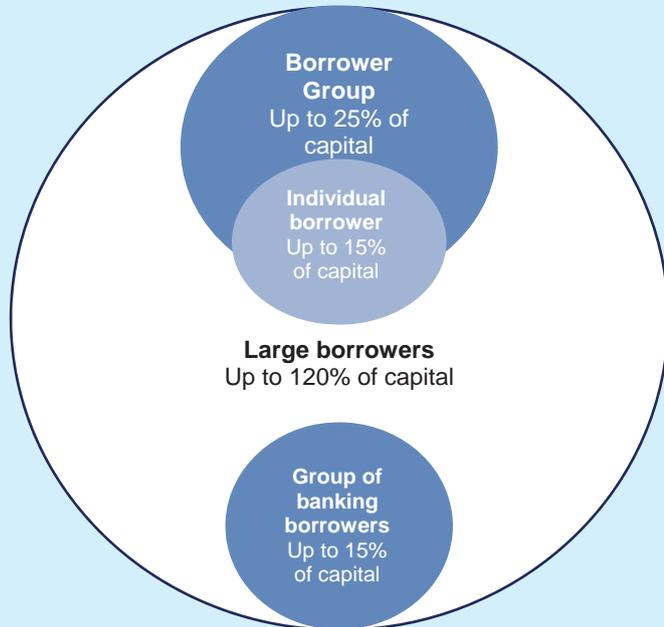
2. *The reduction in concentration relative to capital*

The weight of large borrowers in the capital of the bank shows that the exposure to these borrowers has declined significantly in recent years. A decade ago, each of the five largest banks was exposed to at least three borrower groups where each accounted for more than 20 percent of the bank's capital. Currently, none of the banks are exposed to a borrower group that accounts for more than 20 percent of the bank's capital. Banking Supervision's directives on the exposure to large borrowers constitute a barrier that is meant to protect the banks and prevent losses in the case that a large borrower does not meet its commitments to the bank.

The limits on exposure imposed by Banking Supervision, with the goal of reducing concentration and risky credit (Figure 4), include: a limit on the exposure to a single borrower, a limit on the exposure to a business group of borrowers, a limit on the exposure to a banking group of borrowers, a limit on total exposure to large borrowers, and a limit on the financing of the acquisition of means of control and capital transactions. These restrictions and their subsequent tightening are described below, alongside the actual development of credit as a result of the tightening.

The limit on exposure to a single borrower: Total liability of a single borrower cannot exceed 15 percent of the bank's capital. This restriction constitutes a limit on the loss that is liable to occur due to the failure of a borrower, and thus reduces risk. Over the years, Banking Supervision has tightened the restriction placed on the borrower by both expanding the definition of the credit exposure that is weighted in the calculation of the borrower's liability and by reducing the base for calculating the restriction, namely through the measurement of the exposure relative to available capital (Tier 1 Capital) rather than relative to the overall capital base (a reduction of the base by about 40 percent). **As a result, during the last decade there has been a significant reduction in credit to a single large borrower, such that the average credit per large borrower in each of the five banks has declined from 17 percent of the bank's capital in 2008 to only about 11 percent today.** It should be mentioned that Banking Supervision in Israel has imposed the most stringent limit on a single borrower; the Basel Committee

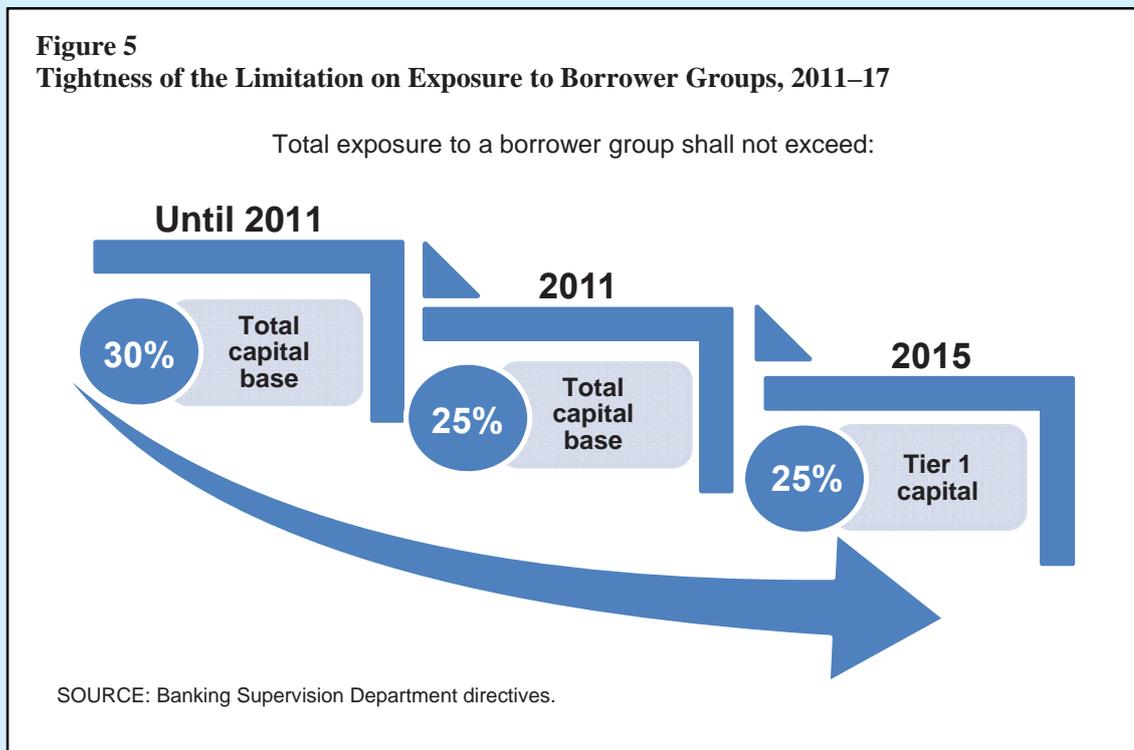
Figure 4
Tier 1 Capital Limitations on Borrower Concentration, December 2017



SOURCE: Banking Supervision Department directives.

and leading regulators worldwide have imposed a limit of 25 percent, similar to the limit on a borrower group. Moreover, the exposure to a single borrower is actually much lower than the limit and credit to each of the borrowers (that are non-financial corporations) is less than 10 percent of capital for all the banks except one.

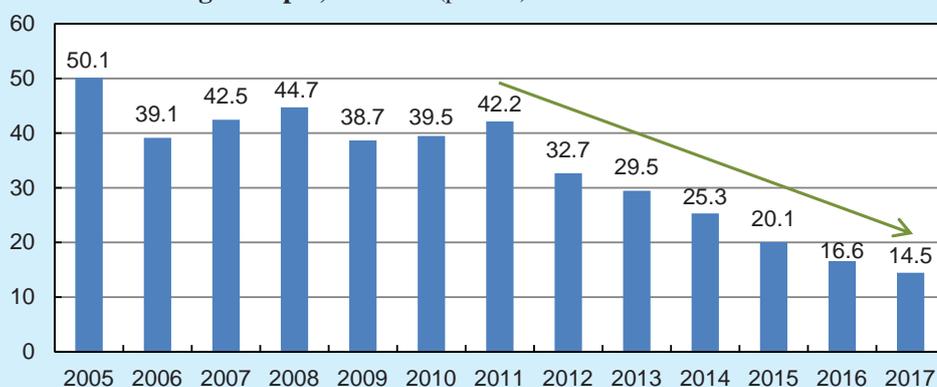
The limit on exposure to a borrower group: Total liability of a borrower group will not exceed 25 percent of the bank's capital. Banking Supervision has over the years significantly tightened the restriction on a borrower group. At first, it expanded the definition of a borrower group; later it tightened the restriction from 30 percent of capital to only 25 percent and finally it reduced the base for measuring the limit to Tier 1 Capital. In this context, the term “borrower group” includes all the borrowers that maintain significant ties with one another, rather than just relations of control and/or guarantee. Therefore, the liability of a borrower group can include the liability of many corporations and entities.



During the last decade, the exposure to large business groups in the economy has declined significantly and the exposure to the largest business group in the five largest banks has fallen by about 40 percent (Figure 6). Currently, the banks are exposed to no more than one borrower group which accounts for more than 15 percent of the bank's capital while in 2008 all of the five largest banks were exposed to at least three borrower groups who constituted more than 20 percent of the capital base. During the last decade, the banks have reduced total credit to the 10 largest borrower groups by about NIS 67 billion (a decrease of about 39 percent; Figure 7).

Exposure to the largest group of business borrowers has been in a prolonged decline, even excluding the effect of write-offs and accounting provisions.

Figure 6
Gross Indebtedness^a of the Largest Borrower Group as a Share of Total Equity, the Five Banking Groups^b, 2005–17 (percent)



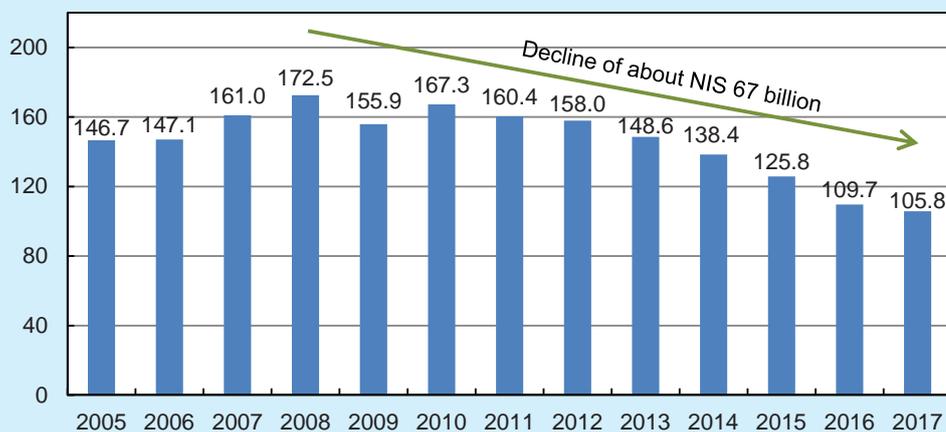
^a Gross indebtedness includes balance-sheet credit and off-balance-sheet credit before write-offs and provisions.

^b The sum of the gross indebtedness of the largest borrower group in each banking group divided by the total equity of the five banking groups.

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

Credit to the 10 largest borrower groups declined by NIS 67 billion in the past decade.

Figure 7
Gross Indebtedness^a of the 10 Largest Business Borrower Groups, the Five Banking Groups, 2005–17 (NIS billion)

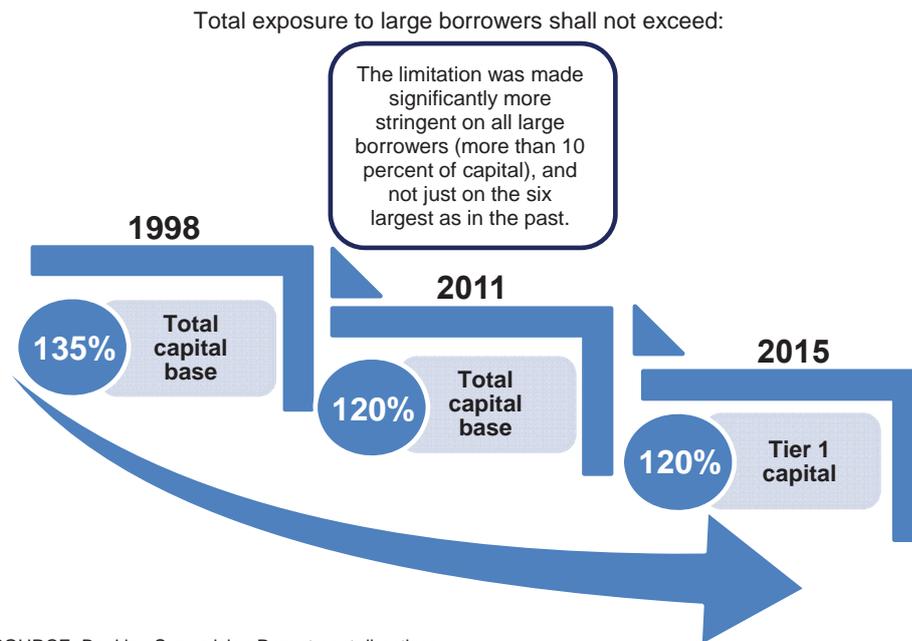


^a Gross indebtedness includes balance-sheet and off-balance-sheet credit before write-offs and provisions.

SOURCE: Based on reports to the Banking Supervision Department.

The limit on total exposure to large borrowers: The total liability of large borrowers cannot exceed 120 percent of the bank’s capital. In this context, the term “large borrower” indicates a borrower (or borrower group or banking borrower group) whose liability exceeds 10 percent of the bank’s capital. In view of the concentration in the credit portfolio of the banking system, the directives were revised and the restrictions on the provision of credit to large borrowers were tightened. **The exposure to these borrowers was limited to 120 percent of the bank’s capital (previously it stood at 135 percent of capital for the six largest borrowers of the bank); and the base for the restriction was gradually reduced to Tier 1 Capital (previously it was calculated according to the total capital base).** During the last decade, there has been a significant drop in the exposure to large borrowers whose liability exceeds 10 percent of the bank’s capital. This decline is primarily the result of the reduction in the number of these borrowers from 131 in 2008 to only 23 in 2017, partly due to the reduction in credit lines and the redemption of credit, the breakup of large business groups and the “wandering” of credit to the non-bank market (Figure 9).

Figure 8
Tightness of the Limitation on Exposure to Large Borrowers, 1998–2017



SOURCE: Banking Supervision Department directives.

Restriction of credit for the financing of means of control: Total credit for the financing of means of control cannot exceed 70 percent of the bank's capital where the rate of financing is greater than 50 percent. This type of credit involves a high level of risk; it is complex, is based primarily on capital rights and on the acquired corporation and it provides the banks with relatively limited protection. As this type of credit grew, the restrictions on it were made more stringent (Figure 11).

In recent years, the banks have financed fewer transactions for the acquisition of control, with respect to both the number of transactions and their scope and in 2016 and 2017 they did not finance any major transactions of this type.³ As a rule, the banks refrain from providing credit for the acquisition of leveraged control of companies, following the change in "tastes" and risk appetite that resulted from realizations of the aforementioned credit risk and the lessons learned from past failures. The banks have reduced credit for the financing of means of control by about NIS 16 billion (during 2011–15).

3. Tightening of capital requirements

Banking Supervision has promoted the reduction in exposure to large borrowers also by adopting international standards set by the Basel Committee, by raising the capital requirement against credit to large borrowers and by setting stringent regulatory capital targets. Banking Supervision has adopted standards more stringent than those recommended by the Basel Committee with regard to the capital ratio and has also set a higher risk weight for credit to large borrowers than for credit to households and small businesses. Thus, the banks are required to encumber more capital against credit to large borrowers. Moreover, in 2012, as part of the preparations to implement Basel III, Banking Supervision published minimum targets for the banks' core capital. Accordingly, the banking system adopted a strategy of strict management of capital, the reduction of business credit which have higher capital requirements and increasing the volume of mortgages.

In addition to the quantitative restrictions, Banking Supervision published a directive on the management of credit risk in 2012, which specified the structure of management and the division of authority within it. Similarly, the directive introduced basic principles and standards for the extension of credit to borrowers (familiarity with the borrower, the purpose of the credit, the structure of the credit and the source for repayment), the correct exercise of discretion and the careful management of risk. In order to support correct credit decisions and to minimize the effects of conflicts of interest and of irrelevant considerations, it was decided that an independent entity in the business units (the risk management function) would be intimately involved in decisions related to major credit exposures, those exceeding NIS 25 million, and that these decisions would be made subject to its opinion.

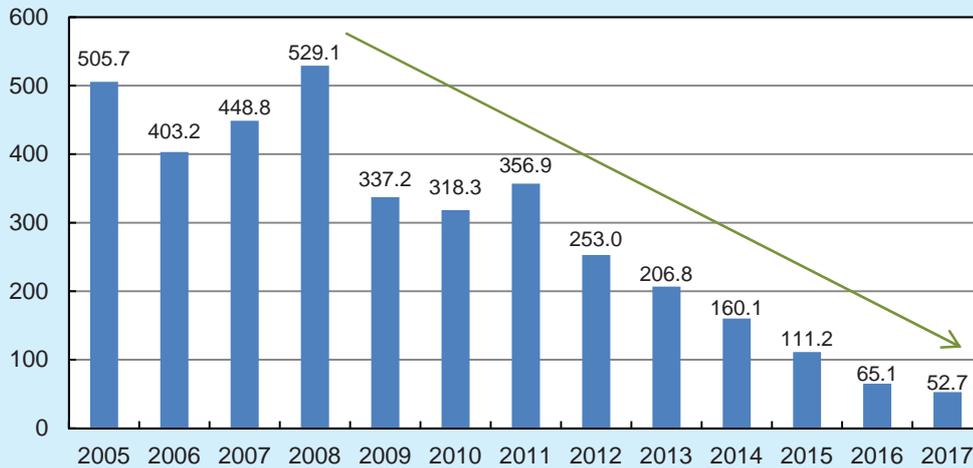
c. The exposure to large borrowers – where to now?

The restriction of exposure to a single borrower and to a borrower group on the level of the bank has meant that borrowers with large financing needs are forced to borrow from several financial bodies simultaneously – the banks, institutional bodies and sometimes also the capital market. The lack of uniformity between these sources with respect to underwriting and regulatory arbitrage is liable to lead to a borrower attaining greater leverage than if he had borrowed only from the banking system. The

³ These are transactions that account for more than 1 percent of the bank's capital.

There has been a sharp decline in the indebtedness of the large borrowers.

Figure 9
Cumulative Net Indebtedness as a Share of Equity, Borrowers with Net Indebtedness of More than 10 Percent of the Banking Corporation's Capital^a, the Five Banking Groups, 2005–17 (percent)



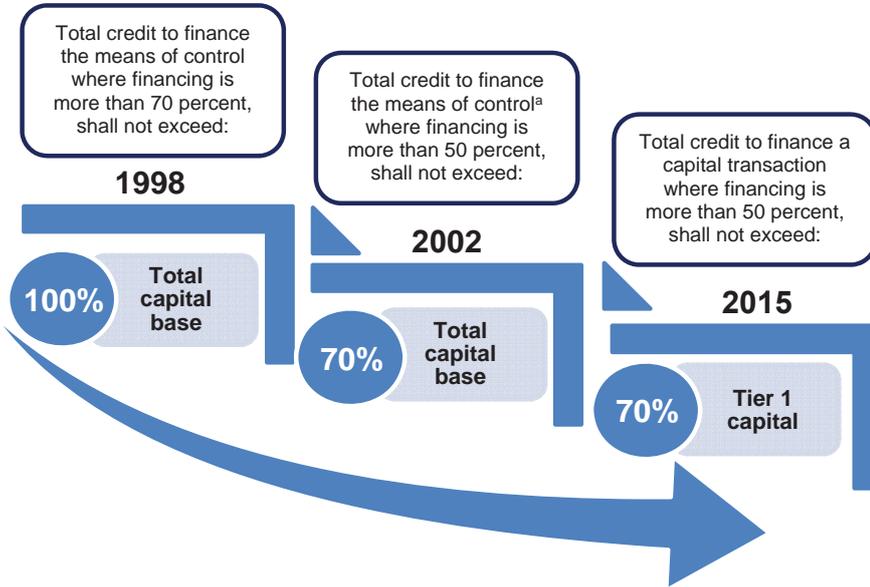
^a In accordance with the transition directive from June 2015.

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

banks for their part have deepened their activity in joint financing transactions (syndication) and in the sale of credit exposure both inside and outside the banking system. In 2016–17, the banks sold credit risk inside and outside the banking system totaling about NIS 8.6 billion (not including housing loans) and the scope of syndication transactions reached about NIS 21 billion (not including housing loans).

The decline in credit to large lenders in the banking system during the last decade is highly significant since it has reduced risk and the chance of large future losses. On the other hand, credit to business borrowers, including large ones, is essential to the economy's expansion and growth. **From the economy's point of view, it is important that the banks continue to provide business credit and in this way to support economic activity and employment, although it is clear that the provision of credit involves risks, some of which are periodically realized.**

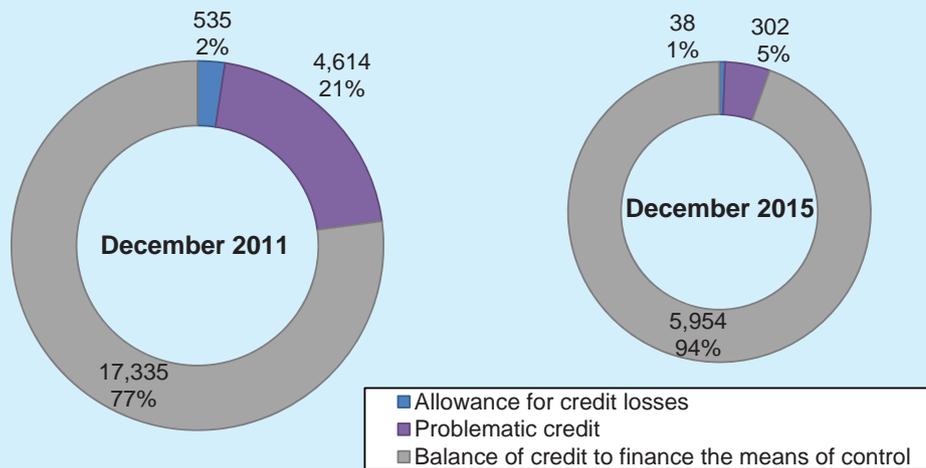
Figure 10
Tightness of the Limitation on Exposure to Credit for Financing the Means of Control, 1998–2017



^a Additional credit provided after the purchase was added to the definition of "Credit to finance the means of control".
SOURCE: Banking Supervision Department directives.

Financing to purchase the means of control has been reduced in view of past failures.

Figure 11
Distribution of Credit to Finance the Purchase of Means of Control, 2011 and 2015 (NIS million)



SOURCE: Based on reports to the Banking Supervision Department.

2. THE HANDLING OF PUBLIC ENQUIRIES AND COMPLAINTS¹

The Public Enquiries Unit² within the Banking Supervision Department deals with enquiries from the public submitted to the Banking Supervision Department that are related to the public's dealings with the banks and the credit card companies. In addition, the Unit serves as a channel for the transfer of information from the public to the relevant officials within the Banking Supervision Department and the Bank of Israel as a whole. Based on this information (among other things), the Banking Supervision Department identifies and deals with deficiencies in service to the consumer, whether within a specific bank or in the banking system as a whole. It is also responsible for regulations to protect the consumer, it carries out audits for the purpose of enforcement, and it conducts public information activities.

1. The handling of public enquiries and complaints by the Banking Supervision Department

The Public Enquiries Unit deals with three main types of written enquiries:

- **Complaints** – The complaints involve disagreements between a customer and a bank. In most cases, the complaint is accompanied by a demand for compensation or that the bank take corrective action.
- **Clarification of banking issues** – Requests for information on various aspects of banking consumerism, such as Banking Supervision Department policies and directives, banking legislation, consumer rights, and the activity of the Banking Supervision Department and the Public Enquires Unit. In addition, the public submits suggestions for improvements and for directives to be issued to the banks, which is evidence of its social involvement and desire to improve the banking system for the benefit of the public.
- **Requests for assistance beyond the letter of the law** – Enquiries of various types, such as requests to write off or reschedule a debt, to receive credit, etc. The decision whether to grant such requests is that of the banks, and therefore, the Banking Supervision Department submits such requests to them.

In 2017, the Public Enquiries Unit received 7,036 written enquiries and dealt with 6,941 written enquiries divided as follows:

- **Direct handling** – The Unit dealt with 4,396 enquiries, of which 1,928 were complaints, 2,301 were requests for clarification and 167 were requests for assistance beyond the letter of the law.

¹ The information presented in this survey is correct as of the date of publication. The final information will be published in a detailed survey of the Public Enquiries Unit's activities.

² The Public Enquiries Unit's activities are based on Paragraph 16 of the Banking (Customer Service) Law, 5741–1981, which grants authority to the Supervisor of Banks to investigate enquiries from the public regarding their dealings with the banks.

- **Exhaustion of proceedings** – The Public Enquiries Unit transferred 2,545 complaints and requests for assistance beyond the letter of the law to the public complaints representatives of the banks, in accordance with the principles set out in Proper Conduct of Banking Business Directive 308A on the handling of public complaints.

Of the 1,928 written complaints that the Unit dealt with directly during the reviewed year, decisions were made as to whether they were justified or not in 818 cases. Twelve percent were found to be justified and most of the justified complaints had to do with a bank's refusal to open a bank account with no credit facility or problems in debt collection.

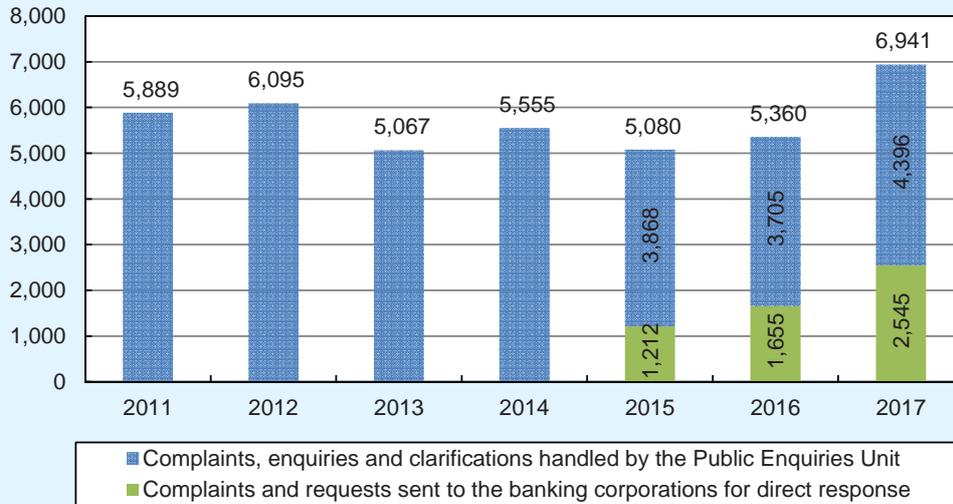
As a result of the enquiries that were handled during the reviewed year, the banks paid out about NIS 2 million to customers.

In addition, the Public Enquiries Unit operates a telephone help desk that provides information on banking and consumer rights, as well as the process for submitting a complaint, the status of existing complaints, and so forth.

Table 3.1	
Complaints dealt with by the Public Enquiries Unit in 2017	
Number of complaints for which handling was completed	1,928
<i>of which:</i>	
Complaints for which a decision was made on the issue	818
Complaints for which handling was completed without a position being taken	736
Complaints that the Unit lacked the authority to deal with	322
Complaints for which handling was completed by means of mediation	52
Source: Banking Supervision Department.	

As Figure 3.1 shows, from 2015 until the end of 2017, there was a noticeable upward trend in the number of complaints handled by the Public Enquiries Unit, whether directly or by transferring them to the public complaints representative at one of the banks. The trend indicates increasing awareness among the banks' customers of the Public Enquiries Unit's services and that customers are interested in fully exploiting their rights in their dealings with the banks.

Figure 3.1
Number of Enquiries and Complaints, 2011–17



SOURCE: Banking Supervision Department.

b. Issues frequently raised in the enquiries

The complaints handled by the Public Enquiries Unit in 2017 concerned a wide variety of issues. An analysis of the complaints shows that they often arise from specific circumstances and tend not to repeat themselves. Nonetheless, many enquiries concerned the following issues:

Means of payment (18 percent) – these enquiries had to do primarily with checks and payment cards; current accounts (17 percent) – these enquiries specifically had to do with the refusal of the bank to open an account and to issue basic means of payment; quality of banking service (15 percent).

The breakdown of the subjects of the enquiries during the reviewed year is not significantly different from that in 2016, and they include all of the banking services provided to the customer.

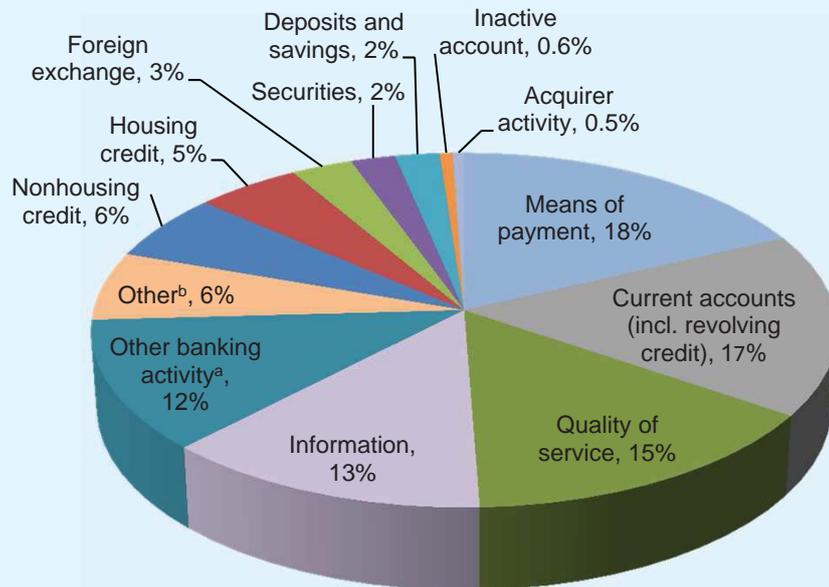
3. Focuses of activity

The following are some of the main topics on which the Public Enquiries Unit focused in 2017. These topics reflect the main banking consumer issues raised by the information received from the public.

- **Response to the needs of weak segments of the population**

The Banking Supervision Department attributes great importance to assisting the customers of the banking system. In particular, the Unit devotes tremendous attention to the needs of financially distressed populations, populations with special needs such as the elderly and the handicapped, and customers lacking knowledge and experience in financial consumerism. These customers receive individual attention, according to their specific needs.

Figure 3.2
Distribution of Enquiries by Topic, 2017



^a Other banking activity: Debt collection, estate distribution, executing lawful orders, reporting to credit data agencies, and more.

^b Other: Enquiries regarding activity or entities that are not under the jurisdiction of the Public Enquiries Unit—including enquiries concerning the Postal Bank, insurance companies, provident and pension funds—and enquiries that do not concern bank-customer relations.

SOURCE: Banking Supervision Department.

The Public Enquiries Unit strictly maintains three principles in dealing with these enquiries: (1) providing as rapid a response as possible; (2) providing a response that is appropriate to the customer, his specific needs, and the circumstances; and (3) finding a solution through cooperation with the bank where the account is located.

- **Opening a current account and issuing of a debit card**

The Banking Supervision Department attributes great importance to the right to open and manage a bank account with no credit facility. This is based on Directive 422 which deals with the opening of a current account with no credit facility provided that the bank has no reasonable argument against opening such an account.

Complaints of this type primarily dealt with the refusal of a bank to open an account for customers who are experiencing financial difficulties. Other complaints concern the refusal of a bank to provide customers with basic means of payment for the management of their account, such as a debit card. Enquiries of this type are fast-tracked in order to provide timely assistance to the customer. In addition, a check is made that such cases do not repeat

themselves. In some cases, representatives of the Public Enquiries Unit accompany the enquirers when submitting a request to open an account, in order to observe how the bank implements Directive 422.

- **Collection of debts from financially distressed customers**

Fairness towards the customer and the principle that the banks need to behave honestly and fairly at every stage of the relationship with the customer are manifested in the way they treat customers in debt. Alongside the possibility of debt rescheduling, they also consider the customer's obligation to repay his debts and the bank's right to initiate legal proceedings in order to collect a debt.

In 2017, emphasis was placed on handling complaints submitted by recipients of National Insurance payments where the bank did not allow the withdrawal of the payment, inter alia due to the existence of a debt. The investigation of such complaints is carried out in accordance with the provisions of the National Insurance Law.

3. THE HANDLING OF RESTRICTED ACCOUNTS AND CUSTOMERS

- **During 2017, the number of restrictions on customers originating from nonbank entities declined, while the number of restrictions originating from the banks remained unchanged. As a result, the total number of restricted customers fell somewhat.**
- **During 2017, the Banking Supervision Department issued Proper Conduct of Banking Business Directive 430, which prohibits the banks from using information provided by the Bank of Israel regarding restrictions for purposes that go beyond what is required in order to fulfill the Checks Without Cover Law, 5741–1981. Among other things, the Directive prohibits the use of information in order to determine a customer's credit rating. The directive went into effect on March 25, 2018.**
- **The Banking Supervision Department is working to improve the situation of restricted customers and to reduce their number in several ways. It sends warnings in real time by SMS; it provides an Internet interface to provide personal information on restricted customers and accounts on the Bank of Israel site; it provides responses to enquiries by email; it enables customers who have been restricted to open a current account, to use an immediate debit card, to access online information, and more in accordance with Proper Conduct of Banking Business Directive 422; it cooperates with the Enforcement and Collection Authority in order to reduce the number of restrictions as a result of small debts; and it provides instruction and information to the public on restrictions.**
- **During 2017, there were 849,527 views of the webpages maintained by the Restricted Accounts Section on the Bank of Israel website.**

1. Number of restricted customers and accounts

In 2017, there were about 256,000 restricted customers and about 470,000 restricted accounts, while in the previous year the figures were 269,000 and 460,000, respectively. Figure 3.3 shows that the moderate decline in the number of restricted customers was primarily due to the drop in the number of special restrictions imposed by various non-bank entities (the Enforcement and Collection Authority, the Official Receiver, the Collection and Fines Center and the rabbinic courts). The figure also shows that there were about 223,000 restrictions imposed on debtors, while the banks imposed restrictions on about 32,000 customers due to improper checking activity. In other words, the vast majority of restrictions on customers were imposed by nonbank entities that have the legal authority to do so.

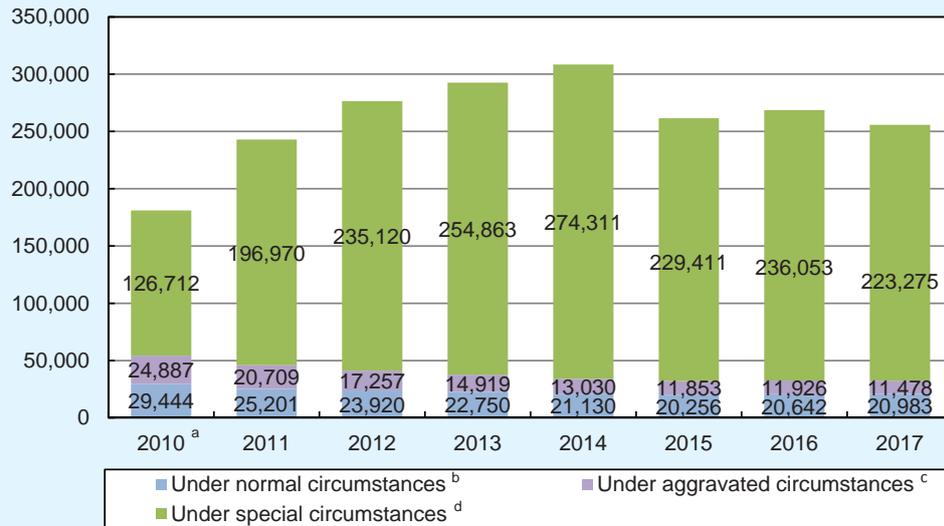
The slight increase in the number of restricted accounts is, in our opinion, the result of increased public awareness of the fact that Proper Conduct of Banking Business Directive 422 allows customers who have been restricted to open an account at a new bank.

The decline in the number of restricted customers reflects the policy adopted by the Banking Supervision Department to reduce that number. In general, the Banking Supervision Department endeavors to assist customers in three stages: before the restriction—in order to help them finance their activities and to avoid the actual imposition of the restriction; during the restriction—in order to provide them with relevant information, including their rights and obligations in this situation; and following the restriction—with the goal of assisting in their financial rehabilitation. In particular:

1. **Preventative measures** – The Banking Supervision Department has instructed the banks to contact customers whose risk of having their accounts restricted has increased (following five checks being returned for insufficient funds) and to send them a warning by SMS. The Banking Supervision Department also takes part in information campaigns on the subject of checks in order to increase the public's awareness of the subject. In addition, the Banking Supervision Department cooperates with the Enforcement and Collection Authority in order to reduce the number of restrictions on debtors with small debts.
2. **Improvement of service to restricted customers** – Proper Conduct of Banking Business Directive 422 states that restricted customers have the right to open a current account without the ability to write checks from it, and to receive basic services, including an immediate debit card, a cash withdrawal card and access to online information. Moreover, customers whose accounts are restricted can receive assistance by means of a designated web interface for obtaining personal information on the Bank of Israel's site. The interface provides them with a full picture of the restrictions on them and essential information regarding their rights and obligations. It also provides immediate confirmation of their status. In addition, the bank is required to send the customer an SMS immediately upon the restriction of an account.

- 3. Support for returning to normal activity at the end of a restriction period**
 – According to Proper Conduct of Banking Business Directive 430 (which went into effect on March 25, 2018), at the end of a restriction period the banks cannot save the information they received from the Bank of Israel regarding the restriction. Neither can they use the information for commercial purposes, such as determining a customer’s credit rating, during the period.

Figure 3.3
Number of Restricted Customers, 2010–17



^a Between 2010 and 2014, the number of customers restricted under special circumstances increased, as a result of a legislative change in the processes accompanying debt collection proceedings (Amendment 29 to the Executions and Collections Agency Law, 5769–2008).

^b An account is restricted under normal circumstances if over a period of 12 months, ten (or more) checks drawn on the account were refused due to insufficient funds.

^c A customer is restricted under aggravated circumstances if there are two or more restrictions under normal circumstances within three years from the end of the previous restriction period. In such a situation, all of the customer’s checking accounts are restricted for a period of two years.

^d A restriction under special circumstances (nonbank) is imposed by nonbank entities (the Executions and Collections Agency, the Official Receiver, or the Rabbinic Courts) due to a debt or refusal to grant a writ of divorce. In such a situation, all of the customer’s checking accounts are restricted for a period of up to five years.

SOURCE: Banking Supervision Department.

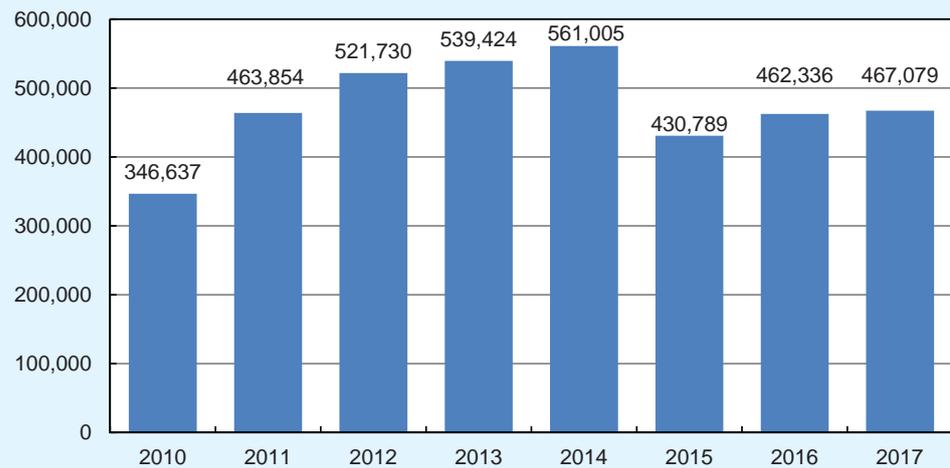
2. Handling of enquiries related to restrictions and their appeals

During 2017, the Banking Supervision Department dealt with 6,559 written enquiries (by means of the online enquiry form, email, fax or mail) and about 20,000 telephone enquiries. These enquiries concerned a variety of problems and questions from customers whose accounts had been restricted, general information on their rights and obligations and the issuing of status confirmations for presentation to a third party.

An interactive voice response (IVR) system and a website for the general public, including the identification of restricted accounts, are also available to the public. During 2017, there were 849,527 views of the webpages and 15,568 calls placed to the IVR system.

In addition, the Banking Supervision Department monitors the banks' execution of court decisions. This is done through the individual monitoring of appeal cases in order to prevent the violation of legal directives. During 2017, the Section closed 768 appeals of account restrictions.

Figure 3.4
Number of Restricted Accounts^a, 2010–17



^a Beginning in 2010, the number of customers restricted under special circumstances increased, as a result of a legislative change in the processes accompanying debt collection proceedings (Amendment 29 to the Executions and Collections Agency Law, 5769–2008).

SOURCE: Banking Supervision Department.

Appendix A: Regulatory activity in 2017 and early 2018^{1,2}

- January 9 **Publishing of Proper Conduct of Banking Business Directive 400–“Closure of Bank Branches and Downsizing of Teller Services”**
This directive regulates the process for closing of branches and the downsizing of teller services and the transition to providing service through direct channels, in a way that takes into consideration the needs of various customer groups. Most of the sections of the directive went into effect on the day it was published and Sections 19 and 20 went into effect 60 days later.
- February 1 **Publishing of Proper Conduct of Banking Business Directive 450–“Procedures for Debt Collection”**
This directive regulates the actions to be taken in order to achieve greater fairness and transparency in the collection of debts from customers who do not fulfill the terms of their loans. This directive went into effect on February 1, 2018.
- February 12 **Postponement of the publishing of the report to the public**
The information that the banks include in their disclosure to the public has grown in scale and in complexity and therefore it was decided to defer the date for publishing the reports to the public. From now on, it will be possible for the banks to publish annual (quarterly) reports not later than the end of three months (two months) from the date for publishing the financial report.
- Publishing of a letter regarding the improvement in usability of the reports to the public that the banks published in 2016**
The Banking Supervision Department is seeking to improve the usability and transparency of the financial reports that the banks publish and in addition to reduce the regulatory burden. Accordingly, the Banking Supervision Department has published a letter that lists the changes that can be implemented already in the reports for 2016: a significant reduction in nonmaterial information and emphasis on material information; expansion of disclosure of information on retail credit; reduction in reporting demands on small banks; and the possibility for banks that head a group to report on the same date as public companies in the economy.

¹ The full and binding text of the description of regulatory activities appears on the Bank of Israel’s website. In the online version, you can find this text by clicking on the title of each activity.

² A blue background indicates new directives and material changes to existing directives.

February 21 **Amendment to directives for reporting to the public regarding disclosure on credit to private individuals**

The banking system has increased its exposure to credit to private individuals (non-housing credit). At the same time, the risk levels of this credit have increased and private consumption has grown. The directives for reporting to the public have been amended in order to ensure that the financial report to the public includes an expanded qualitative and quantitative discussion of the development of risk in the aforementioned credit and the actions being taken by the banks to manage it.

Publishing of a letter regarding the adequacy of loan-loss provisions

The financial reports published by the banks in recent years indicate that during this period the ratio of the expense for loan losses to total credit is significantly lower than the long-term average. Therefore, a letter was published which states that in view of the risk level of the credit portfolio, the banks should carry out a meticulous check of the adequacy of the overall loan-loss provision and of qualitative revisions and also continue to include 2011 in the period used to determine the group provision for loan losses.

In addition, the letter stated that new rules have been published in the US regarding the accounting treatment of financial derivatives and loan losses, which for the most part will go into effect in 2020. It was also decided that the banks would prepare for the implementation of the rules as early as possible and will ensure that the basic data needed for this purpose will be saved in their systems from this point onward.

March 6 **Amendment to Proper Conduct of Banking Business Directive 367–“E-banking”**

Main amendments:

- a. Instructions were issued for the opening and management of a long-term saving account for a child, following the regulation of the issue by the Law for National Insurance.
- b. An exemption was added for customer identification: It was decided that a bank has the option of adding a customer to e-banking services from a distance even if this involves an account closing and the transfer of a deposit which has seen no activity in the amount of up to NIS 1,000.
- c. In order to make it easier for a customer to sign up for the variety of channels offered by an e-banking agreement, it was decided that a bank can offer him a package of channels instead of each channel separately.

Amendment of Proper Conduct of Banking Business Directive 411–“Prevention of Money Laundering and Financing of Terror, and Customer identification”

The directive was amended in order that it comply with the FATF recommendations; it was extended and reformulated with emphasis on the following issues:

- Expansion of the corporate governance functions and details of those functions.
- Expanded description of the issues that are subject to the policy for prevention of money laundering and financing of terror.
- A list of the factors that risk evaluation is to be based on.
- A list of the factors that the bank is to consider in order to identify a high-risk customer and the actions necessary in order to reduce that risk.
- Expansion of the list of risk activities: customers with public exposure (from now on these will include not only foreign public figures but also local ones) and correspondence accounts.

Publishing of an amendment to Proper Conduct of Banking Business Directive 401–“Opening Days of Banking Corporations’ Offices”

This directive establishes rules for the banks in cases where they change their days of activity or temporarily close branches. The directive was amended after the permanent closing of branches was regulated in the Law of Banking (Licensing)(Amendment 22), 5776—2016, and in Proper Conduct of Banking Business Directive 400. The amendment went into effect on the day it was published.

Cancelation of the circular on construction financing

The circular was cancelled since it is no longer relevant following the changes in legislation and the update of the Proper Conduct of Banking Business Directive on the subject.

Publishing of an amendment to the circular on types of accounts and the conditions under which a customer’s signature on an agreement is not required

The circular was amended in order to allow the banks to open and manage a long-term saving account for a child, in accordance with the Law of National Insurance and its regulations.

April 9

Amendment of Proper Conduct of Banking Business Directive 355–“Business Continuity Management”

The amendments to the directive are meant to clarify the elements relating to major operational disruptions, including a strike and the possibility of a disruption that occurs in the banking system as a whole. The amendments emphasize the importance of maintaining the proper functioning of the payment and settlement systems, the continuing provision of banking services to the public and protection of reputation, profitability, the depositors and the holders of the bank’s securities.

July 2

Publishing of a letter regarding the Stock Exchange Clearing Houses

The Israel Securities Authority announced that it will be adopting international guidelines for financial market infrastructures in the Stock Exchange Clearing Houses. Accordingly, a letter was published which confirmed that the Stock Exchange Clearing House and the Maof Clearing House are considered to be the main eligible counterparties for purposes of calculating capital requirements due to exposure to principal counterparties (the manner of calculation is described in Appendix C of Proper Conduct of Banking Business Directive 203).

July 5

Amendment of Proper Conduct of Banking Business Directive 301–“Board of Directors”

The directive was updated in order to improve the efficacy of the board of directors and to raise its level of professionalism. The update includes the following:

- It allows the board of directors to emphasize material issues in its discussions and to allocate them more time, by allowing it to assign some of the decision-making responsibility to board of director committees.
- It reduces from 15 to 10 the maximum required number of directors.
- It requires that a policy be established regarding the maximum period that an individual can serve as chairman of the board.
- It expands the definition of “having banking experience” and raises the proportion of directors that must meet it.
- It requires that at least one director have proven experience in technological issues.

Issuing of Proper Conduct of Banking Business Directive 362–“Cloud Computing”

Cloud computing involves outsourcing and its usage is liable to expose a bank to significant operational risk and cyber risk. The directive is intended to emphasize that senior management must manage these risks and decide on guidelines for the use of cloud. technology

July 10

Amendment of Proper Conduct of Banking Business Directive 311–“Credit Risk Management”

The directive was updated with the goal of lessening the requirements related to the dates for receiving financial reports from corporate borrowers. In addition, a requirement was added that semiannual reports are to be submitted by corporations that are large borrowers in order to reliably analyze their up-to-date financial situation.

Amendment of Proper Conduct of Banking Business Directive 315–“Supplementary Provision for Doubtful Debts“

The concentration in the credit portfolio is one of the sources of the banks’ credit risk and this is the case with regard to concentration in credit according to industry. Therefore, it was decided that the total liability to a particular industry will not exceed 20 percent of total liability to the public and in certain cases 22 percent. At the same time and as part of the policy meant to lighten the regulatory burden and simplify procedures, the mechanisms for the additional provision and the general provision were cancelled.

Amendment of Proper Conduct of Banking Business Directive 314–“Sound Credit Risk Assessment and Valuation for Loans”

Following the cancelation of the mechanism for an additional provision, it was decided that when a bank determines the loan-loss provision, it must calculate in the risk arising from credit for which there is no up-to-date financial report.

July 26

Update of the starting date for the implementation of Proper Conduct of Banking Business Directive 472–“Acquirers and the Settlement of Debit Card Transactions”

It was decided to update the starting date for the implementation of the directive’s clauses which deal with the connection of new terminals and the responsibility for damage. This followed insights arrived at in discussions of the forum for assimilation the EMV standard, an internationally accepted standard for the security of payments transactions with smart debit cards, and based on enquiries made by players in the market, as well as the desire to advance the transition of the economy to EMV and to make the changeover easier for businesses.

August 24	<p>Publishing of an amendment to the Banking (Customer Service)(Fees) Rules, 5768—2008</p> <p>In accordance with the amendment, changes went into effect this year in the area of fees:</p> <ul style="list-style-type: none"> • A bank is required to present the fee it is charging for the withdrawal of cash on the screen of the ATM, according to the type of debit card and the type of ATM. This amendment went into effect on September 24, 2017. • A bank has the option to charge a higher fee to a customer that uses a teller service at a bank branch that is not the one where his account is maintained. The amendment went into effect on November 1, 2017. • When a customer withdraws cash from an ATM of the bank where his account is maintained by means of a card that the bank issued, he will be charged the fee for a direct channel fee even if the ATM is not attached to the bank's branch (which is already the case for withdrawal from an attached ATM). The amendment went into effect on November 1, 2017. • The size of the fee for withdrawal from a required ATM (an ATM put in place according to the decision of the Supervisor of Banks based on paragraph 28a of the Law of Banking (Licensing), 5741—1981) for customers of all the banks will be according to the direct channel price. This amendment went into effect on November 1, 2017. • The fee for a service provided to a customer through a direct channel will be lower than that for the same service provided by a teller. This amendment went into effect on November 1, 2017.
September 13	<p>Issuing of Proper Conduct of Banking Business Directive 329A—"Mortgage Advisors"</p> <p>This directive is added to Directive 329 "Limitations on Issuing of Housing Loans" and presents the guidelines for working with mortgage advisors. It was found that some individuals who had presented themselves as mortgage advisors had cheated their customers. As a result, some of the banks introduced a change in their policy regarding advisors. A concern arose that the activity of mortgage advisors would be harmed, as would customers who desire that they represent them.</p>
September 25	<p>Publication of Proper Conduct of Banking Business Directive 430—"Use of Information According to Checks Without Cover Law and Response to Enquiries Regarding a Special Restriction"</p> <p>This directive is meant to regulate the manner in which the banks preserve the information they received from the Banking Supervision Department according to the Law of Checks Without Cover, 5741—1981, and how they are to use that information. The directive went into effect on March 25, 2018.</p>

October 22

Amendment of Proper Conduct of Banking Business Directive 203–“Credit Risk—the Standardized Approach”

Following are the amendments to the directive:

- The general definitions were established for entities that belong to the public sector and the list was added to the FAQs on the Bank of Israel’s website.
- The list of authorized external credit rating companies for the allocation of capital was updated.
- The list of principal indexes for the purpose of establishing eligible collateral was updated.

Amendment of Proper Conduct of Banking Business Directive 311–“Credit Risk Management”

A change was made to the Banking (Service to the Customer) Law, 5741—1981, according to which a bank does not have the right to unreasonably refuse an additional lien and its realization. Therefore, a clause was added to Directive 311 which directs the bank that holds the first lien on an asset to take into account the implications of the borrower’s right to encumber the asset with an additional lien at the same level in favor of a different creditor, to manage the risk deriving from this right and to adopt caution in the decision to refuse an additional lien and/or its realization.

Amendment to Proper Conduct of Banking Business Directive 313–“Limitations on the Indebtedness of a Borrower and a Group of Borrowers”

The main amendments to the directive are as follows:

- If the guarantee of an insurance company is recognized as a deduction and can be realized if the customer does not fulfil the conditions of the liability, it will be added to the definition of “liability”.
- The deductions included in the calculation of the restriction on a borrower’s liability were expanded and from now on compensation from an insurance company can be added to them.

October 23

Issue of Proper Conduct of Banking Business Directive 330–“Management of Credit Risk Arising from Trade by Customers in Derivative Instruments and Securities”

This directive was issued as a result of the failures in the management of risk originating from trade in derivative instruments and securities and it presents guidelines for risk management with emphasis on customers involved in speculative activity: the bank must properly manage the legal and operational risk resulting from the fact that its customers are trading in the capital market and must require liquid collateral from them in order to cover the existing exposure (variation margin) and the potential exposure (initial margin) due to their activity.

- November 16 **Publishing of an amendment to Proper Conduct of Banking Business Directive 451–“Procedures for Extending Housing Loans”**
The period in which an applicant for a loan must submit the documents necessary to receive the interest rates that appear on the approval in principle was extended from 12 to 24 days. The extension will not apply to loans that do not require a new lien. The amendment went into effect on February 16, 2018.
- November 26 **Publishing of letter regarding the tracks service – increasing awareness and encouraging enrollment among small businesses to join**
The tracks service defined by the Banking Supervision Department enables a small business to significantly reduce the cost of managing its account and therefore the banks have been asked to examine—on behalf of these customers—whether it is worthwhile for them to sign up for the service and to notify them accordingly.
- December 10 **Publishing of a letter regarding housing loans complementary to eligibility loans**
A letter was sent to the banks to clarify that if a customer finances a home purchase with the help of an eligibility loan, among other sources, it is not permitted to worsen the interest rates offered to him relative to a situation in which the financing is entirely by means of the bank, given identical risk characteristics.
- December 17 **Amendment to Proper Conduct of Banking Business Directive 329–“Limitations on Issuing Housing Loans”**
In order to provide support and reinforce settlement in the Periphery and to create a certain amount of correlation between the minimal equity required to purchase a home by way of the “Buyer’s Price” program and the value of the purchased home, the equity required of purchasers in the Periphery was reduced, in accordance with what was agreed upon between the Bank of Israel and the Ministry of Finance.
- December 18 **Cancellation of the circular on breaking open a fixed time deposit**
The circular was cancelled since it is no longer relevant.

December 25 **Publishing of an amendment to Proper Conduct of Banking Business Directive 367–“E-banking”**

Following the Law for Increased Competition and the Reduction of Concentration in the Banking Market in Israel (Legislative Amendments), 5777—2017, the banks are required to provide information on the balance of a customer’s current account to other financial institutions.

Publishing of an amendment to Proper Conduct of Banking Business Directive 367–“E-banking”

When a bank makes use of one-time passwords (OTP) that are sent to a customer by SMS, it must verify that the customers who are not able to receive SMSs or read them receive a different solution by means of a voice SMS. The amendment went into effect on April 1, 2018.

December 27 **Publishing of a letter regarding the debit of a customer’s account that is carried out after the credit due to the check becomes final – clarification**

A letter was sent to the banks with the clarification that the account of the paid customer is not to be debited after the credit for that check becomes final, even if a notification that the check has been returned is received from the withdrawing bank.

Drafts that were published since the beginning of 2017

August 7 **Publishing of Banking (Terms for Hosting of an Acquirer) Rules, 5777—2017**

In the context of the Increasing Competition and Reducing Concentration in the Banking Sector in Israel Law (Legislative Amendments), 5777—2017, the Governor of the Bank of Israel, following consultation with the Minister of Finance, published draft rules for the hosting of a new acquirer by existing acquirers. The comments submitted by the public were accepted and a final version was formulated with them incorporated. It will be published in the near future.

Directives since the beginning of 2018

January 8 **Publishing of an amendment to the Proper Conduct of Banking Business Directive 450—”Debt Collection Procedures”**

Amendment of the Directive is required following the Regulation of Non-Bank Loans Law (Amendment 5), 5777—2017 (Fair Credit Law), which regulated the maximum rate of interest on arrears applying to a loan. The amendment went into effect on the day that the directive went into effect (on February 1, 2018).

- January 11 **Publishing of the amendment to Proper Conduct of Banking Business Directive 420—”Sending Notices via Means of Communication”**
This amendment is meant to improve the efficiency of sending notifications and to add useful information to customer notifications. Part of the amendment went into effect on the day of publication and part on April 1, 2018.
- January 21 **Publication of amendment to Proper Conduct of Banking Business Directive 470—”Debit Cards”**
The amendment to the Directive is required as part of the Supervisor of Banks’ authority to issue directives based on the Increasing Competition and Reducing Concentration in the Banking Sector in Israel Law (Legislative Amendments), 5777—2017. In addition, the mechanism for the issuing of payment cards was updated in order to adapt the directive to the current technological reality.
- January 25 **Publishing of the level of the interchange fee which will go into effect in January 2019**
In January 2018, the Bank of Israel published the comments of the public to the draft schedule for the reduction in the interchange fee. Following the comments that were received, the Governor of the Bank of Israel declared the service for which the fee is collected to be under supervision and decided on the schedule. The reduction of the interchange fee on transactions with deferred and immediate cards is expected to save hundreds of millions of shekels each year for businesses in the economy.
- February 26 **Update of Proper Conduct of Banking Business Directive 202—”Measurement and Capital Adequacy—Regulatory Capital”**
In order to streamline the process of issuing capital instruments and to emphasize that the banks have the responsibility to ensure that the instruments meet the necessary criteria, it was decided to cancel the requirement of obtaining prior approval of an issue from the Banking Supervision Department. Instead, the banks are required to notify the Banking Supervision Department immediately after an issue and according to the format that was decided upon.

March 22 **Publishing of an update to Proper Conduct of Banking Business Directive 367—”E-banking”**

As part of the updates to the Directive, changes were prepared that relate to the opening of an online account and its management and to activity by email. In particular,

- It was made possible to open an online account by means of any identification technology and remote visual identification, as long as it complies with the guidelines listed in the directive.
- Even someone who does not have a bank account can open an online account, but only with a bank that chooses to use an identification technology and remote visual confirmation.
- The requirement to present an identifying document in addition to an ID card was cancelled in the case that the banks choose to use an identification technology and remote visual confirmation.
- Opening of an online account will from now on be possible also for a minor who has reached the age of 16.
- The requirement to carry out a bank transfer when opening a loan account online was cancelled in the case of loans for less than NIS 50,000.
- The requirement to use visual conferencing technology in an online settlement account was cancelled if the annual settlement does not exceed NIS 50,000.
- In certain cases, there is a need to contact the customer in real time following the identification of suspect activity in his account. In these cases, the bank can contact him using any means of communication it chooses, in addition to contacting him by the channel that the customer has chosen in order to receive notifications and confirmations.
- A bank can send information to customers by email without encryption, subject to the appropriate assessment of risk and other controls.

Publishing of an update to Proper Conduct of Banking Business Directive 420—”Sending Notices via Means of Communication”

Directive 420 was amended as a complementary measure to the amendment of Directive 367 on the subject of email. From now on, there is no longer any distinction between a legal notification and any other with regard to level of security, including encryption, which is to be applied in sending email notifications.

April 24 **Publishing of Proper Conduct of Banking Business Directive on the subject of supervision of overseas branches**

The directive was issued as a result of the realization of risk, primarily with respect to money laundering and the financing of terror, in the banks’ activity abroad by means of subsidiaries, branches and offices. The directive is meant to emphasize the importance of supervising subsidiaries abroad and to maintain appropriate mechanisms of corporate governance, auditing and control.

Drafts that were published since the beginning of 2018

April 22

Exemptions for credit card companies divested from the banks

In April 2018, draft amendments to the Proper Conduct of Banking Business Directives were published for comment by the public and this included exemptions for credit card companies divested from the banks. The amendments significantly streamline the requirements with respect to these companies' ongoing financing needs (liquidity) and they are meant to allow the companies to diversify their current sources of financing. These are in addition to the exemptions provided to the credit card companies in the past which related to capital requirements. In addition, it was decided that the banks and the credit card companies will notify the Supervisor of Banks with regard to agreements between them in order to ensure that they are in line with the spirit of the Increasing Competition and Reducing Concentration in the Banking Sector in Israel Law.

