

Bank of IsraelPayment and Settlement Systems

Israel's Payment and Settlement Systems

Main developments in 2015-2016 and 2015 BIS statistical tables

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Main Developments in 2015 and 2016

In 2015–16 the Bank of Israel continued working to improve the efficiency of the payment systems. It acted to encourage the use of advanced and lower-risk electronic means of payment and increased its activity in the regulation of payment and settlement systems with the goal of ensuring their stability. Likewise, the Bank acted to enhance competition in the payment systems and to make them more accessible to payment service providers that are not banking corporations.

In recent years there has been marked development of Israel's payment system, primarily because innovative technologies make it possible to reduce transaction costs, increase the speed of payments, document and monitor transactions executed via electronic means of payment, improve ease of use—for payers and recipients—and to provide immediate payment services. These technologies also make it possible to expand redundancy in the payment services area and to strengthen business continuity capabilities.

Among the most significant reforms in recent years is the switch from physical to electronic clearing of checks, in accordance with the **Electronic Check Clearing Law, 5776-2016**. This law was published in Reshumot (the official Gazette) on February 10, 2016, and is intended to advance the use of checks and the process of clearing them. The Law makes it possible to halt the physical check at the bank in which it is presented for payment, and to only send an image file of the check to the bank from which the money is withdrawn. The implementation of the law has already begun and is being carried out in two main stages. In the first stage, beginning November 8, 2016, interbank clearing became possible for checks deposited via cellular application. (Previously, it had only been possible to deposit checks drawn on the same bank in this manner.) The second stage will begin in the third quarter of 2017, when all checks will be cleared in accordance with the provisions of the new law. The Electronic Check Clearing Law significantly advances the check clearing process, supports processes of increasing efficiency being adopted by the banking system and enables bank customers to deposit checks electronically, in an advanced, convenient, and efficient manner.

In recent years, several joint committees were set up and went into action, and their recommendations directly impacted on the payment and settlement systems in Israel. **The Committee to Reduce the Use of Cash in the Israeli Economy (the "Locker Committee")**² was established with the goal of reducing the shadow economy in Israel. The legislative memorandum for the Reducing the Use of Cash Law, 5775-2015, was published on February 4, 2015, and on July 28, 2015 the Knesset approved the bill in

http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/8-11-16-ElectronicClearing.aspx

In July 2014, the Locker Committee Report was published, which includes the public's comments, and on October 22, 2014, the Government approved its recommendations. http://www.boi.org.il/en/PaymentSystem/Documents/The%20Committee%20to%20Examine%20Reducing%20the%20Use%20 of%20Cash%20in%20Israel%E2%80%99s%20Economy.pdf

its first reading. The legislative process is still not complete, but the Bank of Israel is promoting the implementation of the Committee's recommendations:

Promoting the use of advanced means of payment

The Locker Committee concluded that in parallel with reducing the use of paper-based means of payment (cash and anonymous checks), advanced digital substitutes should be produced. Thus, in March 2014, the Joint Committee for Promoting Advanced **Electronic Means of Payment** was established, headed by the Director of the Accounting, Payment and Settlement Systems Department at the Bank of Israel, Mrs. Irit Mendelson (the Mendelson Committee). The Committee examined how to promote the use of advanced means of payment, including digital checks and electronic wallets, and it published an interim report in November 2015.³ Its main recommendations include regulating payment services, examining the need to set up a new and secure retail infrastructure for immediate and final settlement of advanced payments, examining the need for a digital check, and setting up—through the National Cyber Bureau—a secure infrastructure for executing payments. Accordingly, the Committee set up subcommittees to extensively examine the recommendations: a Bank of Israel Team to Examine the Need for a New Retail Infrastructure⁴, a Bank of Israel Team to Examine the Need for Digital Checks⁵, and a Joint Subcommittee to Formulate a Legislative Memorandum for Regulating Payment Services (Managing a Payment Account, Issuing Means of Payment and Acquiring Payment Transactions). The Subcommittee for Regulating Payment Services was established in March 2016 and is led by the Head of the Payment Systems Oversight Unit at the Bank of Israel.⁶ This Subcommittee formulated the Principles for Regulating Payment Services⁷ and published them in July 2016 for public comment. The Subcommittee's work was based on the European Payment Services Directive (PSD) and on a subsequent revised version, PSD2,8 with adjustments to the domestic market. The regulation of payment services will allow competition in payment services, will establish uniform consumer protections that will be applied on all payment service providers and all payment services, will strengthen the public's trust in nonbank suppliers of payment services and advanced means of payment, and will encourage technological and business innovation, all while maintaining the stability and sound operations of the payment systems.

http://www.boi.org.il/en/NewsAndPublications/PressReleases/Documents/Interim%20Report-The%20 Committee%20for%20Promoting%20Use%20of%20Advanced%20Means%20of%20Payment%20 in%20Israel.pdf

⁴ The Team presented the situation worldwide and the domestic market's needs in November 2016.

⁵ The Team submitted a concluding report in June 2016.

⁶ The Committee included representatives from the Bank of Israel, the Israel Antitrust Authority, the Ministry of Finance, and the Ministry of Justice.

⁷ http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/5-10-16.aspx

⁸ http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L2366&from=EN

Promoting the establishment of an additional switch⁹ for executing payment card transactions

Based on the recommendations of the Locker Committee, the Bank of Israel established a **Team to Examine the Need for Establishing an Additional Switch for Executing Payment Card Transactions**. The Team conducted a comprehensive examination of all the links in the transaction execution chain, including an examination of the need to set up an additional switch. The Team published an interim report in August 2015, and its final report in July 2016. The Team recommended taking actions to remove the existing barriers in the market and to enable new participants to join it. The main points of the recommendations were to expand the activity and participation of the National Payments Council to additional relevant parties at interest, in accordance with the World Bank model; to set up a Payment Cards Committee; to regulate the principles and rules for the development and use of a protocol for conducting a payment card transaction; to implement the protocol in a modular manner, meaning in a way that will make it possible to choose the terminal's uses and to implement them in accordance with users' needs; and to ensure that the terminals will support numerous contactless applications and transactions.

In 2015 and 2016 the Bank of Israel began implementing the recommendations of the Switch Committee:

- The activity of the National Payments Council was expanded in the past year in order to bring the market in line with regulatory and technological developments, through collaboration of all the entities involved in the sector, including financial corporations (banks and nonbanks), clearing houses, regulators, and various ministries. The Council's responsibility is focused on two functions: (1) supporting the attainment of stability and efficiency in the payment systems in Israel, and (2) promoting the use of advanced means of payment and enhancing competition in the payment services sector.
- Regulation regarding contactless transactions was published.
- A Payment Card Committee was established¹³ to discuss the professional and technological issues related to the methods of activity and rules for executing transactions in

⁹ The infrastructure that connects issuers and merchant acquirers (or various processors) for the approval and acquiring of a payment card transaction.

http://www.boi.org.il/en/PaymentSystem/LawsAndRegulations/Announcements%20Document/Payment%20Card%20Transaction%20Chain%20(Final%20Report)%20Bank%20of%20Israel.pdf

The National Payments Council was established in 2009. It is an advisory entity that meets twice yearly, and serves as a forum for cooperation with the objectives of promoting initiatives to implement payment system infrastructures; encouraging competition among participants; preparing strategic planning by payment systems; monitoring the implementation of reforms, and others. The Council was expanded in accordance with the World Bank model.

¹² The technical specifications and structure of the message that serves to convey a transaction between entities in the chain.

¹³ In December 2015.

the payment card system. The Committee includes representatives of various participants in the payment card market, including Shva, the banks, distributors, manufacturers, acquirers, and issuers.

- Terms of access to the Masav and Shva payment systems were compiled, and the Bank of Israel published principles that establish that these need to be objective, risk-based, transparent to the public, and permit fair and open access to participation in the payment systems. The implementation of the principles in the various systems will enable nonbank entities to participate directly or indirectly in the payment systems.¹⁴
- Shva protocol principles were defined, and they were published in July 2016. 15

The Bank of Israel is taking part in the technological revolution in Israel's means of payment sector, with an understanding of the importance of regulation and oversight that are intended to ensure the realization of the advantages incorporated in them and to minimize the risks, while maintaining the stability and efficiency of the payment systems in Israel.

Main Developments in Payment Systems in 2015

1. Zahav¹⁶

The Zahav (the Hebrew acronym for RTGS) system fulfills three functions:

- Conducts interbank transactions—transactions executed by banks and their customers, including transfers from abroad. Table 1 presents interbank activity, with a separation between activity in shekels (excluding CLS) and conversions of shekels into foreign currencies (only CLS).
- Provides final settlement for clearing houses¹⁷ and executes their net settlement. Table 1 presents this activity in the "Clearing houses" column.
- Settles transactions initiated by the Bank of Israel. These transactions appear in Table 1 in the "Bank of Israel" column, and the data in the column reflect the Bank's activity as the banker of the Government and as the operator of the Zahav system (such as loans and monetary deposits that the Bank extends and receives from participants, transactions in respect of participants' collaterals, and manual entries of transfers executed in the Zahav system).

¹⁴ http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/31-07-2016.aspx

http://www.boi.org.il/en/NewsAndPublications/PressReleases/Documents/Principles%20and%20 complementary%20steps%20in%20the%20development%20and%20use%20of%20a%20protocol.pdf

Further information on the Zahav system can be found at http://www.boi.org.il/en/PaymentSystem/ZahavSystem/Pages/Default.aspx

Masav, the Paper-based (Checks) Clearing House, and the Tel Aviv Stock Exchange Clearing Houses (the securities clearing house and the derivatives (Maof) clearing house).

Table 1 indicates that in 2015 about 603,000 transactions, with a total value of NIS 96,000 billion, were settled through the Zahav system. Compared with 2014, the number of transactions increased by 17.3 percent (from 514,000) and their total value increased by 21.6 percent (from about NIS 79,000 billion), so that the average transaction amount increased by about 3.6 percent.

When examining the interbank transactions that were executed on the Zahav system (Table 1), it is found that their number increased by around 18.8 percent from 2014 to 2015, while their value decreased by about 0.3 percent. The picture becomes clearer with Figure 1, which focuses on customer transactions of up to NIS 1 million and indicates that there is an increase in both the number and total value of such transactions. These changes illustrate that the system is beginning to become widespread among households as well as small and medium businesses.

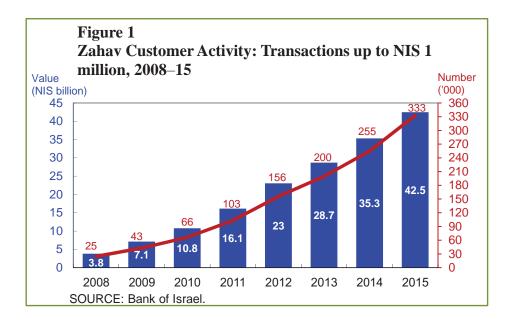
Table 1

| | | | Table 1 | | | |
|-------------------------|------------------|------------------------|---------------|---------------|---------|---------|
| | Activity i | n the Zahav sy | ystem, by con | nponent, 2008 | -15 | |
| | | Interbank ^a | | Clearing | Bank of | |
| | Excluding CLS | CLS only | Total | houses | Israel | Total |
| | | | Amounts (N | IS billion) | | |
| 2008 | 5,894 | 508 | 6,402 | 7,506 | 7,966 | 21,874 |
| 2009 | 3,809 | 933 | 4,742 | 4,831 | 52,731 | 62,304 |
| 2010 | 4,575 | 1,097 | 5,672 | 4,294 | 65,818 | 75,784 |
| 2011 | 5,897 | 1,408 | 7,305 | 4,066 | 77,573 | 88,944 |
| 2012 | 5,109 | 1,606 | 6,715 | 3,515 | 69,637 | 79,867 |
| 2013 | 3,746 | 1,145 | 4,890 | 3,069 | 63,723 | 71,682 |
| 2014 | 3,675 | 1,119 | 4,794 | 3,012 | 71,527 | 79,333 |
| 2015 | 3,745 | 1,037 | 4,782 | 2,870 | 88,779 | 96,431 |
| Yearly change (percent) | 1.91 | -7.31 | -0.24 | -4.72 | 24.12 | 21.55 |
| | | | Transactio | ns (units) | | |
| 2008 | 185,584 | 7,913 | 193,497 | 8,948 | 13,959 | 216,404 |
| 2009 | 156,430 | 10,427 | 166,857 | 9,398 | 21,394 | 197,649 |
| 2010 | 217,872 | 10,774 | 228,646 | 10,707 | 21,864 | 261,217 |
| 2011 | 305,138 | 10,813 | 315,951 | 11,068 | 22,591 | 349,610 |
| 2012 | 355,821 | 10,632 | 366,453 | 12,184 | 21,693 | 400,330 |
| 2013 | 406,627 | 10,871 | 417,498 | 10,768 | 20,602 | 448,868 |
| 2014 | 471,592 | 11,765 | 483,357 | 10,206 | 20,690 | 514,253 |
| 2015 | 562,205 | 12,002 | 574,207 | 8,668 | 20,423 | 603,298 |
| Yearly change (percent) | 19.21 | 2.01 | 18.80 | -15.07 | -1.29 | 17.32 |

^a Shekel activity in CLS began on May 26, 2008.

Two processes impacted markedly on the number of transactions executed by customers in the Zahav system in the past year:¹⁸

- 1. In January 2015, an amendment to the Banking (Service to the Customer)(Fees) Rules, 5768-2008, was published, establishing that when a bank transfers funds of up to NIS 1 million via the Zahav system, it is permitted to charge a fee that does not exceed the amount of one teller-executed fee (approximately NIS 6). The amendment went into effect on February 1, 2015. The fee reduction in respect of this service was intended mainly to make the Zahav system more accessible to the public and to encourage the public to use the system to execute transactions that are important to be carried out in an immediate and irrevocable manner, even when the amount is small.
- 2. An amendment was made to the Prohibition on Money Laundering (The Banking Corporations' Requirement regarding Identification, Reporting, and Record-Keeping for the Prevention of Money Laundering and the Financing of Terrorism) Order, 5761–2001. The amendment refers to transfers from abroad, and the amendment noted the need to execute such transfers via Zahav instead of via Masav. The Zahav Committee and the Banks' Clearing House Committee approved that.¹⁹



These transactions include bilateral transactions, meaning those in which one side is debited and one side is credited, chief among them (1) messages that contain an instruction to execute a transaction between customers (customer to customer transaction, from Israel and from abroad) and (2) messages that contain an instruction to execute a transaction between banks (bank-bank message), such as transfers, providing interbank credit, settling derivatives transactions of small amounts, transferring fee payments between banks, CLS transaction clearing, interbank loans, and others.

¹⁹ It was decided that the process would be implemented in January 2016.

Table 2 presents the transactions executed by customers via the Zahav system during 2015, and segments them by amounts and by geographical location of customers.

Table 2

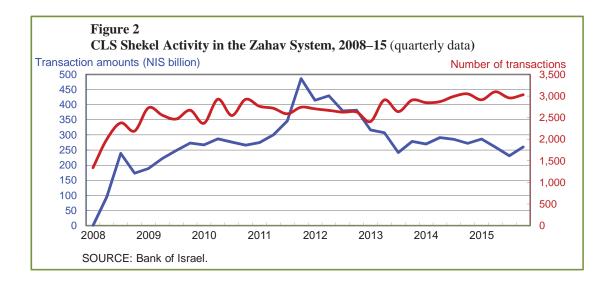
| | | Custo | mer tr | ansacti | ons ^a in | Zahav | system | ı, 2015 | | | | |
|-------------------------------|---------|----------|--------|---------|---------------------|--------|--------|---------|-----------|---------|----------|----------|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| Up to 50,000 | 10,490 | 10,244 | 12,584 | 11,061 | 12,489 | 14,054 | 14,257 | 14,531 | 12,448 | 14,521 | 15,691 | 17,112 |
| 50,000-100,000 | 4,021 | 3,995 | 4,725 | 4,082 | 4,518 | 5,114 | 5,122 | 5,294 | 4,386 | 4,942 | 5,529 | 5,980 |
| 100,000-500,000 | 6,665 | 6,755 | 7,898 | 6,826 | 7,479 | 8,255 | 8,071 | 8,146 | 6,976 | 7,534 | 8,234 | 9,271 |
| 500,000-1,000,000 | 1,744 | 1,696 | 2,055 | 1,812 | 1,878 | 2,130 | 2,135 | 1,946 | 1,717 | 1,886 | 2,072 | 2,362 |
| 1,000,000-10,000,000 | 10,190 | 9,382 | 11,234 | 9,745 | 10,143 | 11,295 | 10,768 | 10,314 | 9,217 | 9,519 | 10,153 | 12,138 |
| Over 10,000,000 | 2,652 | 2,562 | 2,995 | 2,556 | 2,495 | 2,853 | 2,629 | 2,595 | 2,268 | 2,315 | 2,458 | 3,157 |
| Total customers' transactions | 35,762 | 34,634 | 41,491 | 36,082 | 39,002 | 43,701 | 42,982 | 42,826 | 37,012 | 40,717 | 44,137 | 50,020 |
| | January | February | March | April | May | June | July | August | September | October | November | December |
| Customers in Israel | 34,614 | 33,579 | 40,164 | 34,979 | 37,920 | 42,135 | 41,635 | 41,616 | 35,792 | 39,344 | 42,865 | 48,480 |
| Customers abroad | 1,148 | 1,055 | 1,327 | 1,103 | 1,082 | 1,566 | 1,347 | 1,210 | 1,220 | 1,373 | 1,272 | 1,540 |
| Total customers' transactions | 35,762 | 34,634 | 41,491 | 36,082 | 39,002 | 43,701 | 42,982 | 42,826 | 37,012 | 40,717 | 44,137 | 50,020 |

^a Amounts in NIS. SOURCE: Bank of Israel.

2. CLS Bank

CLS Bank operates a major multicurrency cash settlement system, and carries out most conversion transactions that are executed in Israel and in which the shekel is one of the sides.

In 2015, these transactions totaled approximately NIS 1,037 billion—a decline of about NIS 7.3 percent compared with 2014. The number of transactions settled in CLS increased by around 2 percent between the two years (Figure 2).



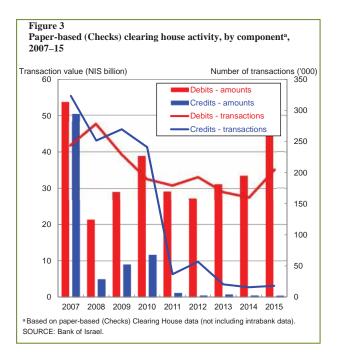
3. Banks' Clearing House

3.1 Paper-based (Checks) Clearing House

Checks, manual drafts, and collection vouchers are settled through the Paper-based (Checks) Clearing House.

In 2015, activity in the Paper-based Clearing House totaled about NIS 986 billion, compared with about NIS 941 billion in 2014, an increase of about 4.8 percent. The number of transactions decreased from about 118,000 to about 115,000, a decline of about 2.2 percent.

Manual debit amounts derived mostly from the settlement of funds from the issuance of corporate securities, which explains the increase in debit amounts in manual clearing corresponding with the increase in the issuance of corporate securities.²⁰



²⁰ Tel Aviv Stock Exchange Annual Review 2015, Table 10: Capital raised by type of security, 2006–15. http://www.tase.co.il/NRes/Category/Economic/Annual_Reviews/2015/Anual_Review_2015.pdf

Table 3

| | Pa | per-based (che | ecks) clearing | house, by componen | it, 2007–15 | | |
|-------------------------|--------|----------------|----------------|----------------------------|-------------|---------|----------------------------------|
| | N | Manual drafts | , , | | Checks | | Paper-based clearing house |
| | Debits | Credits | Total | Presentations ^a | Returns | Total | total |
| | | | | Amounts (NIS billion) |) | | |
| 2007 | 55 | 51 | 106 | 749 | 24 | 773 | 879 |
| 2008 | 21 | 5 | 26 | 776 | 24 | 800 | 826 |
| 2009 | 29 | 9 | 38 | 727 | 22 | 749 | 787 |
| 2010 | 39 | 12 | 51 | 784 | 23 | 807 | 858 |
| 2011 | 29 | 1 | 30 | 822 | 24 | 846 | 877 |
| 2012 | 27 | 0.5 | 28 | 835 | 25 | 860 | 888 |
| 2013 | 31 | 0.8 | 32 | 876 | 26 | 902 | 934 |
| 2014 | 34 | 0.5 | 34 | 881 | 26 | 907 | 941 |
| 2015 | 49 | 0.5 | 50 | 910 | 27 | 936 | 986 |
| Yearly change | 46.48 | -4.09 | 45.71 | 3.22 | 4.40 | 3.25 | 4.79 |
| (percent) | 40.48 | -4.09 | 45./1 | 3.44 | 4.40 | 3.25 | 4.79 |
| | | | T | ransactions (thousand | d) | | |
| 2007 ^b | | | | 148,254 | 3,508 | 151,762 | 151,762 |
| 2008 | 252 | 233 | 485 | 131,739 | 3,609 | 135,348 | 135,833 |
| 2009 | 229 | 270 | 499 | 121,258 | 3,249 | 124,507 | 125,006 |
| 2010 | 190 | 241 | 431 | 121,645 | 2,963 | 124,608 | 125,039 |
| 2011 | 180 | 37 | 217 | 120,583 | 2,883 | 123,466 | 123,683 |
| 2012 | 193 | 57 | 250 | 119,094 | 2,804 | 121,898 | 122,148 |
| 2013 | 169 | 20 | 189 | 117,720 | 2,647 | 120,366 | 120,555 |
| 2014 | 161 | 16 | 176 | 115,148 | 2,499 | 117,647 | 117,823 |
| 2015 | 205 | 18 | 223 | 112,594 | 2,441 | 115,036 | 115,258 |
| Yearly change (percent) | 27.50 | 12.81 | 26.20 | -2.22 | -2.30 | -2.22 | -2.18 |

^a Including electronic presentation of collection vouchers.

^b Data on the number of manual drafts were not collected until 2008.

3.2 Masav²¹

Electronic credits and debits are executed in the "Credit, Debit and Transfer of Payments" system operated by Masav. (Electronic credits are also carried out in the Zahav system.) Table 4 indicates that credits account for about 82.2 percent of total payments settled in Masav.

Activity in Masav increased this year, the result of increases in both credits and debits: the total value of debits increased by about 5.6 percent during the year (compared with about 12.5 percent in the previous year), and the total value of credits increased by about 5 percent (compared with about 3.5 percent in the previous year).

There are 28,071 institutions participating in Masav—organizations, banking corporations, the Postal Bank, government ministries and public institutions, as well as other clearing institutions. In 2015, the number of organizations operating in Masav increased by about 7.5 percent, year over year.

Table 4

| | | Table | e 4 | | |
|---------------|---------|--------------|-----------------------------|---------------|---------|
| | Ma | sav by compo | nent, 2007–15 | | |
| | Credits | Debits | Credit returns ^a | Debit returns | Total |
| | | Am | ounts (NIS billion) | | |
| 2007 | 5,940 | 235 | - | 3.9 | 6,179 |
| 2008 | 1,473 | 261 | - | 4.9 | 1,739 |
| 2009 | 1,503 | 271 | - | 5.5 | 1,779 |
| 2010 | 1,635 | 317 | 1.0 | 4.6 | 1,958 |
| 2011 | 1,752 | 342 | 1.0 | 4.7 | 2,100 |
| 2012 | 1,911 | 364 | 0.8 | 4.7 | 2,280 |
| 2013 | 1,998 | 392 | 0.9 | 4.6 | 2,395 |
| 2014 | 2,067 | 440 | 1.1 | 4.7 | 2,513 |
| 2015 | 2,169 | 465 | 1.3 | 4.6 | 2,640 |
| Yearly change | 4.95 | 5.63 | 17.43 | -1.89 | 5.06 |
| (percent) | 4.75 | | | | 5.00 |
| | | Trar | sactions (thousand | | |
| 2007 | 92,955 | 146,116 | - | 4,535 | 243,606 |
| 2008 | 96,316 | 152,892 | - | 5,003 | 254,211 |
| 2009 | 97,478 | 157,749 | - | 5,395 | 260,622 |
| 2010 | 103,326 | 168,186 | 104 | 4,926 | 276,541 |
| 2011 | 111,055 | 174,125 | 108 | 4,446 | 289,734 |
| 2012 | 119,100 | 180,180 | 109 | 4,295 | 303,684 |
| 2013 | 125,651 | 187,204 | 136 | 4,188 | 317,179 |
| 2014 | 130,976 | 190,645 | 162 | 4,221 | 326,003 |
| 2015 | 138,557 | 193,950 | 183 | 3,801 | 336,491 |
| Yearly change | 5.79 | 1.73 | 13.26 | -9.96 | 3.22 |
| (percent) | 3.17 | 1./3 | 13,20 | -2.20 | 3.44 |

^a Credit returns began being settled in Masav instead of in the paper-based clearing house in December 2009. SOURCE: Masav.

Further information on the Masav system is available at http://www.boi.org.il/en/PaymentSystem/ ActiveClearingHousesInIsrael/Pages/ClearingHouse.aspx

4. The TASE clearing houses

The TASE clearing houses—the securities clearing house and the Maof (derivatives) clearing house—settle the results of trading on the stock exchange. Securities are settled in the TASE clearing houses immediately after the transfer of funds has been settled between the members of the stock exchange in the Zahav system.

Similar to most stock exchanges worldwide, trading volume on the Israeli stock exchange increased. Average daily trading volume in shares increased in 2015 to about NIS 1.45 billion (an increase of about 19.5 percent from the previous year). Average daily trading volume in the bond market was about NIS 4.16 billion (a decline of about 2 percent from the previous year). Table 5 indicates that in 2015, the annual volume of securities traded on the TASE was about NIS 1,485 billion, compared with about NIS 1,477 billion in the previous year (an increase of about 0.6 percent).

Table 5

| | | Securities tra | ding volumes, 20 | 006–15 | | |
|---------------|--------------|----------------|------------------|------------|--------|-------|
| | Shares and | | Bonds | | Makam | Total |
| | convertibles | Government | Other | Total | такат | Total |
| - | | | Amounts (NI | S billion) | | |
| 2006 | 360 | 356 | 68 | 424 | 198 | 982 |
| 2007 | 506 | 636 | 165 | 801 | 207 | 1,514 |
| 2008 | 481 | 761 | 224 | 985 | 192 | 1,658 |
| 2009 | 423 | 789 | 223 | 1,012 | 160 | 1,595 |
| 2010 | 498 | 579 | 218 | 797 | 291 | 1,586 |
| 2011 | 422 | 703 | 217 | 920 | 287 | 1,629 |
| 2012 | 264 | 748 | 247 | 995 | 155 | 1,414 |
| 2013 | 286 | 810 | 249 | 1,059 | 141 | 1,486 |
| 2014 | 297 | 774 | 249 | 1,023 | 157 | 1,477 |
| 2015 | 355 | 751 | 255 | 1,006 | 125 | 1,485 |
| Yearly change | 10.45 | 200 | 2.20 | 1.70 | 20.55 | 0.57 |
| (nercent) | 19.45 | -2.96 | 2.29 | -1.68 | -20.55 | 0.57 |

SOURCE: Tel Aviv Stock Exchange.

Statistical Appendix: Tables of Statistical Data (BIS Tables)

General information, banknotes and coins, institutions and deposits

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Table 1 Basic Information on the Israeli Economy

(Current prices, at year end)

| | | | | | | | | | Annual |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| | | | | | | | | | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Average population (thousands) ¹ | 7,309 | 7,463 | 7,625 | 7,728 | 7,909 | 8,059 | 8,216 | 8,381 | 2.01 |
| GDP (NIS billion) | 726 | 768 | 814 | 870 | 928 | 1,053 | 1,088 | 1,155 | 6.08 |
| Per capita GDP (NIS thousand) | 99.3 | 102.9 | 106.8 | 112.6 | 117.3 | 130.7 | 132.4 | 137.8 | 3.99 |
| Annual rate of change in CPI (percent) ² | 3.8 | 3.91 | 2.66 | 2.17 | 1.63 | 1.82 | -0.20 | -1.00 | 409.97 |
| Average monthly inflation rate (percent) | 0.31 | 0.32 | 0.22 | 0.18 | 0.14 | 0.15 | -0.02 | -0.08 | 409.97 |
| NIS/dollar exchange rate | 3.802 | 3.775 | 3.549 | 3.821 | 3.733 | 3.471 | 3.889 | 3.902 | 0.33 |
| NIS/dollar exchange rate (annual average) | 3.586 | 3.923 | 3.732 | 3.579 | 3.858 | 3.610 | 3.578 | 3.884 | 8.55 |

¹ Calculated as the average between December of the current year and the previous December.

SOURCE: Central Bureau of Statistics and Bank of Israel.

Table 2 **Means of Payment Used by Nonbank Entities**

(NIS million, average for December)

| | | \ | | <u> </u> | | | | | |
|--------------------------------|--------|---------|---------|----------|---------|---------|---------|---------|-----------|
| | | | | | | | | | Annual |
| | | | | | | | | | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Value of the public's current | | | | | | | | | |
| account deposits in banks | 41,916 | 73,621 | 75,889 | 73,505 | 77,824 | 95,158 | 141,139 | 213,685 | 51.40 |
| Money supply (M1) ¹ | 71,895 | 109,481 | 114,467 | 116,518 | 126,619 | 145,838 | 197,761 | 278,202 | 40.68 |

¹ Cash held by the public and demand deposits.

 $^{^{\}rm 2}$ CPI of December of the current year against CPI of the previous December.

Table 3

Means of Payment Used by the Banks

(NIS million, daily average for December)

| | | | | | | | | | Annual |
|----------------------------------|--------|--------|--------|---------|---------|---------|---------|---------|-----------|
| | | | | | | | | | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Banks' deposits in the Bank of | | | | | | | | | |
| Israel ¹ | 27,172 | 99,939 | 92,950 | 119,656 | 122,216 | 117,735 | 138,798 | 160,578 | 15.69 |
| Of which: | | | | | | | | | |
| Reserve requirement ² | 18,063 | 21,468 | 21,702 | 25,487 | 26,240 | 29,073 | 32,463 | 38,690 | 19.18 |
| Free reserves | 9,109 | 78,471 | 71,248 | 94,169 | 95,976 | 88,662 | 106,335 | 121,888 | 14.63 |
| Credit provided by the Bank of | | | | | | | | | |
| Israel: | | | | | | | | | |
| Intra-day credit ³ | 29,986 | 93,049 | 86,385 | 105,791 | 106,477 | 98,218 | 115,914 | 132,709 | 14.49 |
| Inter-day credit ⁴ | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Long-term credit ⁵ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

¹ Current account deposits and short-term deposits, in domestic and foreign currency.

² The reserve requirement is calculated according to the average of the last liquidity month of the year (starting on the last Thursday of November and ending on the last Wednesday of December).

³ Start of day balances. The collateral system is dynamic and enables immediate matching of the amount of collateral to the banks' needs.

⁴ Credit provided by the Bank of Israel for one business day.

⁵ Credit provided by the Bank of Israel for more than one business day.

Table 4 **Banknotes and Coins**(NIS million, at year end)

| | | | | | | | | | Annual |
|---|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| | | | | | | | | | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Banknotes and coins in circulation ¹ | 34,351 | 41,479 | 44,828 | 48,976 | 54,767 | 57,530 | 63,188 | 73,482 | 16.29 |
| Banknotes in circulation | 33,073 | 40,114 | 43,367 | 47,419 | 53,114 | 55,735 | 61,274 | 71,412 | 16.54 |
| Of which: | | | | | | | | | |
| NIS 200 banknote | 16,132 | 21,485 | 25,773 | 30,356 | 35,291 | 37,798 | 42,663 | 51,189 | 19.98 |
| NIS 100 banknote | 13,998 | 15,425 | 14,486 | 14,090 | 14,571 | 14,652 | 15,174 | 16,489 | 8.67 |
| NIS 50 banknote | 2,298 | 2,535 | 2,397 | 2,288 | 2,556 | 2,567 | 2,723 | 2,986 | 9.66 |
| NIS 20 banknote | 612 | 637 | 709 | 683 | 693 | 716 | 712 | 746 | 4.78 |
| Other ² | 33 | 32 | 2 | 2 | 2 | 2 | 2 | 2 | 0.00 |
| Coins in circulation | 1,278 | 1,365 | 1,461 | 1,557 | 1,653 | 1,795 | 1,914 | 2,070 | 8.12 |
| Of which: | | | | | | | | | |
| NIS 10 coin | 452 | 486 | 524 | 566 | 604 | 669 | 717 | 786 | 9.57 |
| NIS 5 coin | 265 | 280 | 300 | 319 | 336 | 365 | 389 | 425 | 9.15 |
| NIS 2 coin | 45 | 70 | 81 | 88 | 100 | 114 | 122 | 131 | 6.83 |
| NIS 10 coin | 369 | 376 | 392 | 411 | 432 | 455 | 481 | 513 | 6.54 |
| NIS 1/2 coin | 59 | 61 | 65 | 71 | 70 | 74 | 79 | 84 | 5.95 |
| 10 agorot coin | 88 | 92 | 99 | 102 | 112 | 120 | 125 | 132 | 5.30 |
| Cash held by the banks ³ | 4,372 | 5,619 | 6,231 | 5,963 | 6,052 | 6,943 | 6,370 | 8,671 | 36.08 |
| Cash held by the public | 29,979 | 35,860 | 38,597 | 43,013 | 48,715 | 50,587 | 56,818 | 64,811 | 14.07 |

¹ The value of the banknotes and coins in circulation includes the cash held by the public and in the banks' vaults, excluding commemorative coins and collectors' coins.

² Old banknotes which can be exchanged at the Bank of Israel.

³ Banknotes and coins in the vaults of the commercial banks. Does not include money held by the public.

SOURCE: Bank of Israel.

Table 5 **Institutions Offering Payment Services to Nonbank Entities**

(at year end) Bank of Israel Number of branches or offices Number of accounts, (banks and non-banks) Number of accounts, banks Number of accounts, non-banks 202,838 113,238 140,849 45,530 137,436 145,119 153,111 183,567 Value of the accounts, all (NIS million) **Banking corporations** Number of institutions Number of branches and offices 1,105 1,137 1,177 1,215 1,236 1,203 1,215 1,214 Banking corporations in Israel, by categories: Regular banking corporations Number of institutions 1,071 Number of branches or offices 1,112 1,150 1,189 1,215 1,194 1,206 1,205 Mortgages banks Number of institutions Number of branches or offices Joint services companies² Number of institutions Number of branches or offices Branches of foreign banks³ Number of institutions Number of branches or offices Other institutions⁴ Number of institutions Of which: **Postal Bank** Number of institutions Number of branches or offices Credit card companies⁵

Number of institutions

¹ Accounts in which payments can be executed in domestic currency. There was a statistical adjustment in the number of accounts of nonbank institutions for 2008 through 2014.

² Masav and Shva.

³ Foreign banks that are legally recognized as banking corporations in Israel.

⁴ Credit card companies and the Postal Bank.

⁵ Isracard, Leumi Card, and Cal.

Table 6 **Number of Payment Cards and Terminals**

(At year end)

| | , | | | | | Annual |
|--|---------|---------|---------|---------|---------|-----------|
| | | | | | | Change |
| | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Cards issued in Israel ^{1,2} (thousands) | | | | | | |
| Cards with cash withdrawal function | 6,986 | 7,507 | 8,015 | 8,654 | 9,244 | 6.82 |
| Debit cards ³ | 437 | 490 | 558 | 664 | 774 | 16.60 |
| Deferred-debit cards ⁴ | 4,589 | 4,886 | 5,211 | 5,452 | 5,781 | 6.04 |
| Credit cards | 5,145 | 5,393 | 5,654 | 5,987 | 6,361 | 6.25 |
| Electronic-Money Cards ⁵ | 460 | 399 | 435 | 546 | 666 | 21.94 |
| Of which: cards that were loaded at least once | 302 | 298 | 346 | 381 | 411 | 7.82 |
| Total number of active cards ⁶ | 5,998 | 6,350 | 6,706 | 7,177 | 7,573 | 5.52 |
| Terminals located in Israel | | | | | | |
| ATMs ^{7,8} | 4,770 | 5,262 | 6,204 | 6,769 | 7,506 | 10.89 |
| Of which: ATMs with cash withdrawal ⁸ | 3,577 | 4,052 | 4,609 | 5,156 | 5,865 | 13.75 |
| Points of sale that honor payment cards ⁹ | 111,461 | 117,223 | 123,928 | 133,985 | 141,615 | 5.69 |

¹ Each card can be used for several functions (e.g., card that is used both for deferred debit and cash withdrawal).

SOURCE: The credit-card companies, Shva, the Banking Supervision Department, and Bank of Israel

² Valid cards at the end of the year (active and inactive).

³ Cards allowing an immediate debit of the customer's account for transactions executed in Israel.

⁴ Cards allowing a debit of the customer's account at the end of the period, that do not permit the division into

⁵ Prepaid cards, both reloadable and non-reloadable.

⁶ Cards that had at least one transaction during the last quarter of the year.

 $^{^{7}}$ Including bank ATMs that receive settlement services from banking corporations. Until December 2013, including ATMs belonging to Shva (Automated Bank Services).

⁸ At the end of 2015, data for 2011-2014 were updated in accordance with banks' information.

⁹ Electronic terminals in which payments can be made by means of payment cards.

Table 7

Indicators of the Use of Payment Systems by Nonbank Entities: Number of Transactions (Thousands, cumulative annual)

| | | (11104) | ounus, cume | inter vo tilling | , | | | | Annual |
|---|-----------|-----------|-------------|------------------|-----------|-----------|-----------|-----------|-----------|
| | | | | | | | | | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Volume by the means of payment | 1,062,486 | 1,105,296 | 1,184,091 | 1,256,085 | 1,348,389 | 1,447,397 | 1,532,666 | 1,646,704 | 7.44 |
| Direct credits ¹ | 96,638 | 98,176 | 103,733 | 111,334 | 119,449 | 126,011 | 131,394 | 139,063 | 5.84 |
| Of which: | | | | | | | | | |
| Paper-based credits ² | 252 | 270 | 241 | 37 | 57 | 20 | 16 | 18 | 12.81 |
| Electronic credits ³ | 96,386 | 97,906 | 103,492 | 111,297 | 119,392 | 125,990 | 131,378 | 139,046 | 5.84 |
| Direct debits ⁴ | 153,170 | 157,979 | 168,376 | 174,305 | 180,373 | 187,373 | 190,806 | 194,155 | 1.76 |
| Of which: | | | | | | | | | |
| Paper-based debits | 278 | 229 | 190 | 180 | 193 | 169 | 161 | 205 | 27.50 |
| Electronic debits | 152,892 | 157,749 | 168,186 | 174,125 | 180,180 | 187,204 | 190,645 | 193,950 | 1.73 |
| Payments with cards issued in Israel ⁵ | 653,331 | 697,393 | 761,117 | 821,299 | 901,028 | 989,438 | 1,069,144 | 1,175,646 | 9.96 |
| Checks ⁶ | 159,347 | 151,748 | 150,865 | 149,147 | 147,539 | 144,575 | 141,321 | 137,840 | -2.46 |
| Volume by type of terminal ⁷ <i>Of which:</i> | 826,668 | 870,115 | 896,861 | 950,295 | 1,030,916 | 1,113,553 | 1,187,145 | 1,292,531 | 8.88 |
| Withdrawals from ATMs ⁸ | 128,494 | 125,573 | 124,863 | 123,248 | 124,961 | 125,582 | 113,782 | 114,738 | 0.84 |
| Transfer of payments at points of sale ⁹ | 698,174 | 744,542 | 771,998 | 827,047 | 905,954 | 987,970 | 1,073,363 | 1,177,793 | 10.00 |

¹ Interbank credits settled in Masav, Zahav and the paper-based clearing house

SOURCE: Bank of Israel and Shva.

² Manual credits at the paper-based clearing house. Estimation based on one day in each month.

³ Interbank credits settled in Masav and Zahav.

⁴ Manual debits in the paper-based clearing house (estimation based on one day in each month) and debits in Masav.

⁵ Payments executed in Israel or abroad.

⁶ Including interbank and intrabank transactions.

⁷ Including transfers by manual terminals.

 $^{^{\}rm 8}$ Until December 2013, including ATMs belonging to Shva (Automated Bank Services).

 $^{^{9}}$ Transfers executed at electronic points of sale by means of payment cards. including debit and credit transactions.

Table 8 Indicators of the Use of Payment Systems by Nonbank Entities: Value of Transactions (NIS million, cumulative annual)

| | | | | | | | | | Annual |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Change |
| Value by the means of payment | 4,108,601 | 3,955,018 | 4,422,619 | 4,852,458 | 5,084,657 | 5,244,143 | 5,528,591 | 5,792,897 | (percent) 4.78 |
| Direct credits ¹ | 2,741,691 | 2,627,043 | 2.976.495 | 3,341,114 | 3,515,500 | 3,596,324 | 3,816,210 | 3,999,926 | 4.81 |
| Of which: | | | | | | | | | |
| Paper-based credits ² | 4,999 | 9,027 | 11,693 | 1,204 | 521 | 789 | 517 | 496 | -4.09 |
| Electronic credits ³ | 2,736,692 | 2,612,240 | 2,904,249 | 3,339,910 | 3,514,979 | 3,595,535 | 3,815,693 | 3,999,430 | 4.82 |
| Direct debits ⁴ | 282,153 | 300,322 | 355,681 | 371,642 | 391,133 | 422,719 | 473,996 | 514,366 | 8.52 |
| Of which: | | | | | | | | | |
| Paper-based debits | 21,360 | 29,088 | 38,895 | 29,184 | 27,272 | 31,196 | 33,513 | 49,090 | 46.48 |
| Electronic debits | 260,793 | 271,235 | 316,785 | 342,458 | 363,861 | 391,523 | 440,483 | 465,276 | 5.63 |
| Payments with cards issued in Israel ⁵ | 160,626 | 167,987 | 184,494 | 198,175 | 213,604 | 228,867 | 241,360 | 259,911 | 7.69 |
| Checks ⁶ | 924,131 | 859,666 | 905,949 | 941,527 | 964,420 | 996,234 | 997,024 | 1,018,694 | 2.17 |
| Value by type of terminal in Israel ⁷ Of which: | 229,590 | 241,729 | 258,919 | 275,126 | 293,422 | 311,672 | 322,868 | 399,683 | 23.79 |
| Withdrawals from ATMs ⁸ | 62.207 | 67.157 | 70.052 | 72.710 | 70.707 | 02.252 | 01.022 | 00.000 | 0.00 |
| Transfer of payments at points of sale ⁹ | 63,297 | 67,157 | 70,853 | 73,718 | 78,796 | 83,352 | 81,823 | 89,889 | 9.86 |
| transfer of payments at points of sale | 166,293 | 174,572 | 188,066 | 201,408 | 214,626 | 228,320 | 241,045 | 309,795 | 28.52 |

¹ Interbank credits of customers, settled in Masav, Zahav, and the paper-based clearing house.

² Manual interbank credits, in the paper-based clearing house.

³ Interbank credits of customers in Masav and Zahav.

⁴ Debits in Masav and manual debits in the paper-based clearing house.

⁵ Payments executed in Israel or abroad.

⁶ Includes interbank and intrabank transactions.

⁷ Includes transfers with manual terminals.

Until December 2013, including ATMs belonging to Shva.
 Transfers executed at electronic points of sale by means of payment cards. Includes debit and credit transactions.

Table 9 **Participation in Interbank Systems for Transferring Payments**

| | (at year | end) | | | | | | |
|--|----------|--------|--------|--------|--------|--------|--------|-------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Zahav - Payment system for large amounts | | | | | | | | |
| Number of participants | 22 | 22 | 22 | 22 | 21 | 21 | 21 | 20 |
| Direct participants ^{1,2} | 18 | 18 | 18 | 19 | 18 | 18 | 18 | 17 |
| Banking corporations | 15 | 15 | 15 | 16 | 15 | 15 | 15 | 14 |
| Bank of Israel | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Postal Bank | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CLS ³ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Indirect participants ⁴ | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Retail payment systems | | | | | | | | |
| Masav | | | | | | | | |
| Number of participants | na | 25,023 | 25,023 | 23,983 | 24,686 | 25,395 | 26,109 | 28071 |
| Direct participants ¹ | na | 25,023 | 25,023 | 23,983 | 24,686 | 25,395 | 26,109 | 28071 |
| Banking corporations | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 17 |
| Bank of Israel | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Postal Bank | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Other institutions ⁵ | na | 25,000 | 25,000 | 23,960 | 24,663 | 25,372 | 26,086 | 28049 |
| Payment card companies | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Indirect participants ⁶ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paper-based Clearing House Number of participants in the manual | | | | | | | | |
| clearing house | 37 | 37 | 36 | 36 | 35 | 35 | 35 | 33 |
| Direct participants ¹ | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 12 |
| Represented participants ⁷ | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 21 |
| Of which: Israeli banking corporations | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 |
| Palestinian banking corporations ⁸ | 16 | 16 | 15 | 15 | 15 | 15 | 15 | 14 |
| Number of participants in the electronic | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| clearing house | 36 | 36 | 35 | 35 | 35 | 35 | 35 | 33 |
| Direct participants ¹ | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Represented participants ⁷ | 28 | 28 | 27 | 27 | 27 | 27 | 27 | 25 |
| Of which: Israeli banking corporations | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 |
| Palestinian banking corporations ⁸ | 16 | 16 | 15 | 15 | 15 | 15 | 15 | 14 |

¹ A direct participant is one that can execute actions in the system without an intermediary.

² Bank Massad became a direct participant in February 2010. BNP Paribas Bank stopped its activity in Israel in July 2012.

 $^{^{3}}$ CLS Bank settles payments between 17 currencies.

⁴ Banks that manage liquidity independently, but their communication interface to Zahav is through another bank.

 $^{^{5}}$ Data for $2008 \neg 10$ are estimated. Includes entities such as large companies, small businesses and community centers.

 $^{^{\}rm 6}$ An indirect participant is one that executes actions in the system via an intermediary.

⁷ Participants represented by direct participants.

⁸ The Palestinian corporations are represented by Israeli banks.

SOURCE: Masav and the Bank of Israel.

Table 10 **Number of Transactions in Selected Payment Systems**

(Thousands, cumulative annual)

| | | | | | | | | | Annual Change |
|--|---------|---------|---------|---------|---------|---------|---------|---------|------------------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Zahav - payment system for large amounts | | | | | | | | | |
| Total transactions ¹ | 217 | 197 | 261 | 349 | 400 | 449 | 514 | 603 | 17.32 |
| Domestic transactions | 211 | 187 | 251 | 339 | 390 | 438 | 502 | 591 | 17.67 |
| Transactions sent to CLS | 3 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 2.01 |
| Transactions received from CLS | 3 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 2.01 |
| Concentration ratio in terms of the number of | | | | | | | | | |
| transactions (%) ² | 75.78 | 73.28 | 74.88 | 76.46 | 77.58 | 78.30 | 79.29 | 78.98 | -0.40 |
| The retail payment systems | | | | | | | | | |
| Masav ³ | | | | | | | | | |
| Total transactions | 249,208 | 255,227 | 271,512 | 285,180 | 299,280 | 312,855 | 321,620 | 332,507 | 3.38 |
| Direct credits | 96,316 | 97,478 | 103,326 | 111,055 | 119,100 | 125,651 | 130,976 | 138,557 | 5.79 |
| Direct debits | 152,892 | 157,749 | 168,186 | 174,125 | 180,180 | 187,204 | 190,645 | 193,950 | 1.73 |
| Concentration ratio in terms of the number of | | | | | | | | | |
| transactions (%) ^{2,4} | - | - | - | - | 83.69 | 84.38 | 85.14 | 85.45 | 0.36 |
| Paper-based (checks) clearing house ³ | | | | | | | | | |
| Total transactions | 132,224 | 121,757 | 122,076 | 120,799 | 119,344 | 117,909 | 115,324 | 112,817 | -2.17 |
| Direct credits | 233 | 270 | 241 | 37 | 57 | 20 | 16 | 18 | 12.81 |
| Direct debits | 252 | 229 | 190 | 180 | 193 | 169 | 161 | 205 | 27.50 |
| Checks | 131,739 | 121,258 | 121,645 | 120,583 | 119,094 | 117,720 | 115,148 | 112,594 | -2.22 |
| Concentration ratio in terms of the number of | | | | | | | | | |
| transactions (%) ^{2,5} | 77.00 | 77.62 | 78.07 | 78.06 | 78.11 | 77.40 | 77.37 | 77.50 | 0.17 |

SOURCE: Masav and Bank of Israel.

¹ Transactions of customers, banks, clearing houses, and the Bank of Israel.
2 Market share of the five most active institutions in the system. In 2015, U-Bank's share of activity was added to First International Bank's as those two banks merged on October 1, 2015.

 $^{^{\}rm 4}$ Precise data were received from Masav beginning in the final quarter of 2012.

⁵ The 2008 data is an estimate.

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Table 11 Value of Transactions in Selected Payment Systems (NIS million, cumulative annual)

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Annual Change (percent) |
|--|------------|------------|------------|------------|------------|------------|------------|------------|-------------------------------|
| Zahav - payment system for large amounts | 2000 | 200) | 2010 | 2011 | 2012 | 2015 | 2011 | 2013 | (percent) |
| Total transactions ¹ | 21,874,139 | 62,303,647 | 75,784,201 | 88,943,903 | 79,867,368 | 71,682,254 | 79,333,035 | 96,430,590 | 21.55 |
| Domestic transactions | 21,368,871 | 61,374,025 | 74,688,533 | 87,535,914 | 78,261,343 | 70,537,747 | 78,213,974 | 95,393,296 | 21.96 |
| Transactions sent to CLS ² | 252,634 | 464,811 | 547,834 | 703,994 | 803,012 | 572,253 | 559,531 | 518,647 | -7.31 |
| Transactions received from CLS ² Concentration ratio in terms of the value of | 252,634 | 464,811 | 547,834 | 703,994 | 803,012 | 572,253 | 559,531 | 518,647 | -7.31 |
| transactions (%) ³ | 79.24 | 76.62 | 77.56 | 80.75 | 81.55 | 82.70 | 83.06 | 81.18 | -2.27 |
| Retail payment systems | | | | | | | | | |
| Masav ⁴ | | | | | | | | | |
| Total transactions | 1,733,581 | 1,773,858 | 1,951,934 | 2,094,175 | 2,274,799 | 2,389,089 | 2,507,209 | 2,634,370 | 5.07 |
| Direct credits | 1,472,788 | 1,502,623 | 1,635,149 | 1,751,716 | 1,910,938 | 1,997,567 | 2,066,726 | 2,169,093 | 4.95 |
| Direct debits | 260,793 | 271,235 | 316,785 | 342,458 | 363,861 | 391,523 | 440,483 | 465,276 | 5.63 |
| Concentration ratio in terms of the value of | | | | | | | | | |
| transactions (%) ³ | 78.49 | 79.88 | 80.75 | 81.01 | 80.67 | 82.84 | 83.96 | 84.04 | 0.10 |
| Paper-based (checks) clearing house ⁴ | | | | | | | | | |
| Total transactions | 803,223 | 765,427 | 834,245 | 852,563 | 863,169 | 908,101 | 915,252 | 959,160 | 4.80 |
| Direct credits | 4,999 | 9,027 | 11,693 | 1,204 | 521 | 789 | 517 | 496 | -4.09 |
| Direct debits | 21,360 | 29,088 | 38,895 | 29,184 | 27,272 | 31,196 | 33,513 | 49,090 | 46.48 |
| Checks | 776,864 | 727,312 | 783,657 | 822,174 | 835,376 | 876,116 | 881,222 | 909,575 | 3.22 |
| Concentration ratio in terms of the value of | | | | | | | | | |
| transactions (%) ³ | 84.38 | 84.43 | 84.76 | 84.29 | 83.77 | 83.46 | 83.74 | 84.41 | 0.80 |

¹ Transactions of customers, banks, clearing houses, and the Bank of Israel.

SOURCE: Masav and Bank of Israel.

Transactions of customers, banks, clearing nouses, and the paint of Israel.

The data for 2008 are for the period beginning on May 27, the date the shekel began participating in clearing through CLS.

Market share of the five most active institutions in the system. In 2015, the U-Bank's share of activity was added to First International Bank's as those two banks merged on October 1, 2015.

The data do not include returns.

Table 12 Israeli Participants in SWIFT

(year end)

| | () () () | | | | | | | | | | | |
|--------------------------------|------------|-------|-------|--------|--------|--------|--------|--------|------------------|--|--|--|
| | | | | | | | | | Annual Change | | | |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) | | | |
| Members ¹ | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | -11.1 | | | |
| Secondary members ² | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | -14.3 | | | |
| Participants ³ | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 33.3 | | | |
| Total users | 18 | 18 | 19 | 20 | 19 | 19 | 19 | 18 | -5.3 | | | |
| Total SWIFT users ⁴ | 8,830 | 9,281 | 9,705 | 10,118 | 10,279 | 10,583 | 10,805 | 11,094 | 2.7 | | | |
| Members ¹ | 2,276 | 2,356 | 2,344 | 2,334 | 2,398 | 2,389 | 2,379 | 2,455 | 3.2 | | | |
| Secondary members ² | 3,305 | 3,306 | 3,331 | 3,355 | 3,340 | 3,343 | 3,353 | 3,395 | 1.3 | | | |
| Participants ³ | 3,249 | 3,619 | 4,030 | 4,429 | 4,541 | 4,851 | 5,073 | 5,244 | 3.4 | | | |

SOURCE: SWIFT.

Table 13 Transfer of SWIFT Messages From and To Local Participants¹

(Thousands, cumulative annual)

| | | | | | | | | | Annual Change |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Messages sent Of which: | 7,262 | 7,979 | 9,160 | 9,797 | 10,579 | 12,434 | 14,281 | 16,618 | 16.36 |
| Category I ² | 2,054 | 2,021 | 2,268 | 2,392 | 2,473 | 2,780 | 2,755 | 2,879 | 4.51 |
| Category II ³ | 1,124 | 854 | 553 | 555 | 544 | 552 | 527 | 519 | -1.37 |
| Messages received Of which: | 7,793 | 9,225 | 10,154 | 10,542 | 10,614 | 11,719 | 12,809 | 14,709 | 4.84 |
| Catgeory I ² | 1,998 | 1,983 | 2,229 | 2,397 | 2,534 | 2,851 | 2,836 | 2,959 | 4.36 |
| Category II ³ | 601 | 507 | 506 | 526 | 546 | 601 | 610 | 624 | 2.37 |
| Domestic traffic in Israel | 965 | 849 | 628 | 776 | 862 | 1,719 | 2,021 | 2,672 | 32.19 |
| Global traffic | 3,854,576 | 3,760,314 | 4,031,935 | 4,431,100 | 4,589,109 | 5,065,668 | 5,612,724 | 6,106,644 | 8.80 |

¹ The traffic of messages in the table includes transfers in shekels and foreign currency.

¹ Organizations with shares in the SWIFT organization.
² Organizations that are owned by the members of SWIFT.

³ Organizations that do not have shares in SWIFT, and whose activities in the SWIFT system are restricted.

 $^{^{\}rm 2}$ Transmissions used by the banks to transfer money to the customer's account.

³ Transmissions used by the banks to transfer money to the account of another bank. SOURCE: SWIFT.

Table 14 **Number of Participants in the TASE**

(at year end)

| | | (at you | i ciia) | | | | | |
|------------------------|------|---------|---------|------|------|------|------|------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Number of participants | 28 | 28 | 27 | 28 | 29 | 26 | 26 | 24 |
| Of which: | | | | | | | | |
| Domestic participants | 24 | 23 | 22 | 22 | 22 | 19 | 19 | 17 |
| Bank of Israel | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Banks | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 10 |
| Other | 12 | 11 | 10 | 10 | 10 | 7 | 7 | 6 |
| Foreign participants | 4 | 5 | 5 | 6 | 7 | 7 | 7 | 7 |
| Banks | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Other | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |

SOURCE: Tel Aviv Stock Exchange.

Table 15 **Number of Registered Securities**

(at year end)

| | | (u | i yeur enu | , | | | | | |
|--|-------|-------|------------|-------|-------|-------|-------|-------|-----------|
| | | | | | | | | | Annual |
| | | | | | | | | | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Total number of securities designated | | | | | | | | | |
| for trading | 1,880 | 1,885 | 2,003 | 1,947 | 1,848 | 1,915 | 1,907 | 1,898 | -0.47 |
| Bonds | 720 | 747 | 710 | 733 | 685 | 734 | 718 | 706 | -1.67 |
| Bonds issued for a year or less ¹ | 11 | 12 | 15 | 13 | 12 | 12 | 12 | 12 | 0.00 |
| Bonds issued for more than a year ² | 709 | 735 | 695 | 720 | 673 | 722 | 706 | 694 | -1.70 |
| Stocks | 632 | 611 | 603 | 580 | 539 | 506 | 473 | 463 | -2.11 |
| Other ³ | 528 | 527 | 690 | 634 | 624 | 675 | 715 | 729 | 1.96 |

¹ Short-term loans (makam).

SOURCE: Tel Aviv Stock Exchange.

² Government and corporate bonds.

³ ETFs and options.

Table 16 **Market Capitalization of Listed Companies**

(NIS million, at year end)

| | | | | | | | | | Annual Change |
|--|---------|---------|---------|---------|---------|---------|---------|---------|------------------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Market Capitalization of Listed Companies ¹ | 670,200 | 769,700 | 806,140 | 600,102 | 603,902 | 705,659 | 780,343 | 924.085 | 18.42 |

 $^{^{\}rm 1}$ The data include dual-listed stocks issued in Israel and abroad.

SOURCE: Tel Aviv Stock Exchange.

Table 17 **Number of Members of the TASE Clearing Houses**

(at year end)

| | (at ye | ear end) | | | | | | |
|--|--------|----------|------|------|------|------|------|------|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Securities clearing house | | | | | | | | |
| Members of the clearing house | 23 | 22 | 21 | 21 | 21 | 19 | 19 | 18 |
| Bank of Israel | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Banking corporations | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Other | 11 | 10 | 9 | 9 | 9 | 7 | 7 | 6 |
| Domestic members of the clearing house | 21 | 20 | 19 | 19 | 19 | 17 | 17 | 16 |
| Bank of Israel | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Banking corporations | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Other | 11 | 10 | 9 | 9 | 9 | 7 | 7 | 6 |
| Foreign members of the clearing house | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Banking corporations | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maof clearing house | | | | | | | | |
| Domestic banking corporations | 10 | 10 | 9 | 9 | 9 | 9 | 9 | 8 |

SOURCE: Tel Aviv Stock Exchange.

 $\label{thm:thm:thm:mass} \begin{tabular}{ll} Table 18 \\ \begin{tabular}{ll} Number of Transactions Settled in the TASE Clearing Houses \\ \end{tabular}$

(Thousands, cumulative annual)

| | (| | | , | | | | | |
|--|---------|--------|---------|---------|--------|--------|--------|--------|------------------|
| | | | | | | | | | Annual |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Change (percent) |
| Number of transactions settled | 109,617 | 94,934 | 106,294 | 122,722 | 86,432 | 80,149 | 84,183 | 90,277 | 7.24 |
| Securities clearing house | | | | | | | | | |
| Securities transactions settled | 17,114 | 23,879 | 27,506 | 23,734 | 19,252 | 20,074 | 20,130 | 24,222 | 20.33 |
| Bonds | 4,577 | 6,867 | 6,860 | 6,772 | 7,110 | 7,521 | 8,209 | 9,543 | 16.25 |
| Makam | 782 | 438 | 368 | 391 | 311 | 199 | 128 | 81 | -36.89 |
| Bonds issued for more than a year ¹ | 3,795 | 6,429 | 6,492 | 6,381 | 6,799 | 7,322 | 8,081 | 9,462 | 17.09 |
| Stocks | 12,537 | 17,012 | 20,646 | 16,970 | 12,152 | 12,553 | 11,921 | 14,679 | 23.14 |
| Repo actions settled ² | na | 18 | 4 | 24 | 0 | 0 | 0 | 0 | - |
| Maof clearing house | | | | | | | | | |
| Derivative transactions settled | 92,503 | 71,037 | 78,784 | 98,965 | 67,180 | 60,075 | 64,053 | 66,055 | 3.13 |

¹ Government and corporate bonds.

SOURCE: Tel Aviv Stock Exchange.

Table 19 **Value of Transactions Settled in the TASE Clearing Houses**

(NIS million, cumulative annual)

| | | ` | | | | | | | Annual |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | | | | | | |
| | 2000 | 2000 | 2010 | 2011 | 2012 | 2012 | 2014 | 2015 | Change |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | (percent) |
| Value of transactions settled | 1,609,399 | 1,518,955 | 1,672,347 | 1,468,447 | 1,276,027 | 1,424,088 | 1,449,346 | 1,510,730 | 4.24 |
| Securities clearing house | | | | | | | | | |
| Value of securities transactions settled | 1,492,332 | 1,437,644 | 1,586,478 | 1,347,185 | 1,198,013 | 1,354,331 | 1,373,762 | 1,427,931 | 3.94 |
| Bonds | 1,109,662 | 1,124,879 | 1,067,998 | 1,071,321 | 1,088,599 | 1,099,720 | 1,103,710 | 1,098,908 | -0.44 |
| Makam | 181,054 | 149,879 | 291,143 | 186,796 | 136,657 | 132,941 | 144,704 | 117,731 | -18.64 |
| Bonds issued for more than a year ¹ | 928,608 | 975,000 | 776,855 | 884,525 | 951,942 | 966,779 | 959,006 | 981,177 | 2.31 |
| Stocks | 447,952 | 382,716 | 497,832 | 377,493 | 236,608 | 254,611 | 270,052 | 329,022 | 21.84 |
| Value of repo actions settled ² | na | 106 | 2,752 | 1,238 | 0 | 0 | 0 | 0 | - |
| Maof clearing house | | | | | | | | | |
| Value of derivatives transactions settled | 117,067 | 81,205 | 83,117 | 120,024 | 78,014 | 69,757 | 75,584 | 82,799 | 9.55 |

¹ Government and corporate bonds.

² Trade in repo takes place only in government bonds are issued for more than a year.

² Trade in repo takes place only in government bonds that are issued for more than a year. SOURCE: Tel Aviv Stock Exchange.

BANK OF ISRAEL

Acronyms and abbreviations

ACH Automated Clearing House¹

ATM Automated Teller Machine

BIS Bank for International Settlements

CLS Continuous Linked Settlement

EMV Europay, MasterCard, and Visa

IBAN International Bank Account Number

ICS Intraday Credit System

POS Point Of Sale

RTGS Real Time Gross Settlement²

SHVA Hebrew acronym for: Automated Banking Services

¹ In Israel the automated clearing house is known as Masav (a Hebrew acronym for Banks Clearing Center).

² In Israel the RTGS clearing house is known as the Zahav system (a Hebrew acronym for Real Time Gross Settlement).

Glossary

Clearing house A central location or a central processing mechanism by

> means of which financial institutions agree to exchange among themselves payment instructions or other financial obligations. The institutions settle the exchanged items

between themselves at an agreed time.

Controlled system A payment system subject to the authority of the Bank of

> Israel's oversight of payment and settlement systems, in accordance with the Payment Systems Law. The activity of a controlled system is critical to the payment system in the economy, and there is concern that irregular, inefficient or

unreliable activity can negatively impact the payment system.

The ability to receive money, goods or services, and to return the money, or pay for the goods or services, at a later date.

Daily credit Credit provided for a single business day. This credit is also

Credit

known as a daily overdraft and intraday credit.

Designated controlled A payment system subject to the authority of the Bank of system Israel's oversight of payment and settlement systems, and

in which settled payments are final, in accordance with the Payment Systems Law. The activity of a designated controlled system has a significant role in monetary and financial stability in Israel, and there is concern that irregular, inefficient or unreliable activity can negatively impact monetary and financial stability and the payment system. The finality of the payments settled in it is important, as is the protection of

payments against insolvency on the part of a participant.

Intraday liquidity Liquidity ability in the course of the business day.

Liquidity The ability of a business entity to meet current liabilities on time, often expressed as the ratio of current liabilities to

current assets (cash, tradable securities, etc.).

Means of payment Any financial instrument that enables its holder to transfer

> money or to pay for services and assets. The common means of payment include cash, checks, direct debits, direct credits,

and payment cards.

Money laundering Financial actions whose purpose is to conceal the source of

> the money, usually money from an illegal source or money on which tax has not been paid. Enforcing the "Prohibition on money laundering" returns the money to the legal system.

BANK OF ISRAEL

Net settlement Settlement of several obligations or transfers between or

within a group of counterparties on a net basis.

Security/collateral Tangible property pledged to a bank as security for the

repayment of a loan. Collateral can be highly liquid (tradable collateral), enabling it to be realized easily—such as securities traded on the stock exchange, bank deposits, debtors accounts, and other property of various kinds—or low-liquidity assets (non-tradable collateral) such as real estate. This collateral becomes the property of the lender in the event that the

borrower does not comply with the conditions of the loan.

Settlement An action that discharges the obligations between two or

more parties regarding the transfer of money, securities or

other financial assets.

Switch An entity that directs the messages concerning approval and

verification that merchant acquirers and issuers send between

them, and that can create and distribute clearing files.