



Bank of Israel

Payment and Settlement
Systems Department

Overview of the Payment Systems in Israel



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Data for 2018–2020 with updates from 2021

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This overview outlines the payment and settlement systems in Israel and describes the main developments in the field in terms of innovation, competition, and regulation **over recent years**, as well as in relation to the payment systems and their infrastructure and the development of the various means of payment and payment services. The survey also deals with the challenges facing the Bank of Israel's Payment and Settlement Systems Department as it works to advance and develop the payments system in Israel. It also reviews the activity of the payments system in Israel during the COVID-19 crisis.

The data presented in this review are for the years 2018–2020, although many of the reforms detailed herein were launched or came to fruition only in 2021, and will continue to develop in the coming years. Therefore, the review also discusses events in this field in 2021.

The overview chapters deal with the following topics: main developments in recent years; trends in the payment systems and means of payment; institutional aspects that have an effect on the payment systems; and a description of the payment and settlement systems and the communication systems relevant to the field.

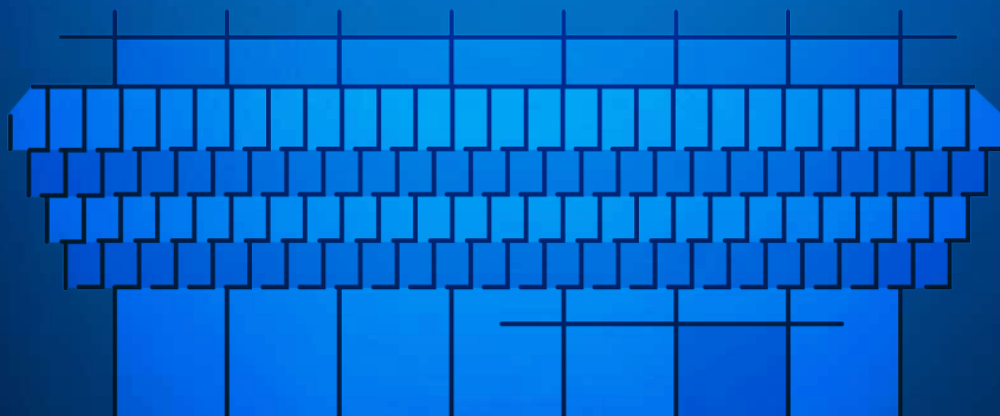


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Introduction

The payments systems landscape in Israel has developed rapidly in recent years. This development helps close gaps between the Israeli economy and the most advanced economies in the world in the payments field, moving the domestic payments ecosystem to the global cutting edge, with the participation of international players, and encouraging Israeli fintech companies to operate in Israel.

Payment system regulators seek to cultivate new and advanced methods of payment. One of the unique challenges in small open economies such as Israel is making it feasible for commercial entities to operate locally in the payments space. The profitability of running a business in the payments industry depends on high volumes of turnover, a phenomenon that tends to limit the number of participants in a small country. Naturally, therefore, it is difficult to encourage the kind of competition locally that spurs innovation and progress in larger economies.

Particularly in countries such as Israel, where legacy payment systems and services operate well and provide highly available and stable services, sometimes even at reasonable costs and transaction times, it behooves us to ask what is the problem we are trying to solve. While existing payments systems in Israel function well, new innovations and value offerings can improve the payment experience even more, advance trade in the economy, and, no less important, serve as a stepping stone for additional financial services, such as smart credit, as well as products and services from nonfinancial fields. Furthermore, there is another unique aspect to the Israeli payments sector. Research and development centers with global significance for paytech initiatives are located here, but many of their innovations are not yet made available to Israeli consumers or businesses.

The Bank of Israel's Payment and Settlement Systems Department continually examines what steps must be taken to remove domestic entry barriers for PayTech companies and to enable all participants in the field, both existing stakeholders and potential market entrants, to operate. We do so in our role as the operator of the ZAHAV (RTGS) system and the national clearinghouse, as supervisors of the designated payment systems, and as policymakers in the payments field. The Department is responsible for the stability of the payment systems, alongside the advancement of their overall efficiency, and for ensuring fair and equitable access to those systems for all payment service providers who meet the access conditions and connection requirements of the relevant system.

In the coming years, we will continue to expand and grow the significant reforms that the Bank of Israel has thus far implemented in the area of payments and in fields that interface with it. We will continue to work towards closing the gap between the payments field in Israel and in other countries, and will strive to lead the field internationally.

I would like to thank all those who assisted in the preparation of this important overview.

Oded Salomy 
Head of the Payment and Settlement
Systems Department, Bank of Israel.



The payments and settlements field around the world, as well as in Israel specifically, has developed at a rapid pace in recent years, both technologically and commercially. Understanding the importance of an advanced digital payment universe for the citizen and for the economy as a whole has led to significant developments in the technological, business, regulatory, and legal payment infrastructures, as well as in the means of payment that are accessible to citizens, including the improvement of the credit card and check payment experience, cross-border payments, and the implementation of immediate retail payments.

Technology has led developments in the business world, and hence also in the universe of payments, and the Bank of Israel must prepare the infrastructures to keep up with the pace of innovation, which has intensified in recent years. We have provided the necessary infrastructures for the new digital financial universe. We have promoted reforms in existing payment systems: credit cards, Paper-Based (Checks) Clearinghouse (BCH), and MASAV (the Banks Automated Settlement System). We have strengthened the stability and security of the payment systems that we operate, as well as those that we oversee in the economy. We have developed new payment systems and new means of payment. We have worked hard to open the payment systems to nonbank participants, and we have promoted legislation in that sphere.

Since the Bank of Israel established the ZAHAV (Real Time Gross Settlement) system in 2007, the importance it attributes to the payment system has been growing.

Bank of Israel Governor Prof. Amir Yaron has also noted on a number of occasions the strategic importance of promoting the payment system for the entire economy, and the Bank's strategy in the area of payments was included in the Bank's strategic plan, which was drafted in 2018.

I thank the managers and employees in the Payment and Settlement Systems Division, whose professional and dedicated work has enabled the significant progress we have made in recent years in maintaining the stability and security of all payment systems, strengthening business continuity, promoting reforms and innovation in this sphere, removing barriers in payment systems and payment services, and opening the payment systems to competition and the entry of new participants, with much more to come.

Ronit Chitayate 

Director of the Payment and Settlement Systems Division,
Payment and Settlement Systems Department, Bank of Israel.

Executive Summary

In recent years, the Israel payments market has experienced significant technological progress, such as implementation of the EMV and NFC protocols that enabled deployment of advanced means of payment, particularly digital wallets and contactless payments. The Israeli economy's migration to EMV and NFC was driven by the Bank of Israel's regulatory agenda, which led to the entry of nine digital wallets in the past 18 months alone, among other things. In addition, a new payment system—a retail Faster Payments system—was developed, and steps were taken to increase nonbank entities' access to the payment systems. Another step, which became effective in July 2021, was the acceleration of credit card settlement once per month to once per day. In addition, a series of measures were implemented to enhance advanced digital services for customers, including open banking, licensing and establishment of a new digital bank, “one-click” mobility between banks, and more.

All the supervised payment systems in Israel featured particularly high levels of availability and stability. Between 2018 and 2020, Israel's RTGS system, ZAHAV, had an average availability level of 99.988%; the national ACH clearing house, enabling direct debit and direct credit wire transfers, operated by Masav, featured an average availability level of 99.999%; the national switch for payment cards, operated by Shva, had an average availability level of 99.996% availability; and the ATM payment system operated by Shva functioned at an average availability level of 99.974%.

Over the past decade, Israel has experienced dramatic growth in digital payment values. In 2020, ACH wire transfers accounted for 51 percent of total payment values, comprised of 42 percent direct credits and 9 percent direct debits. Payments made through the ZAHAV system accounted for 31% of payment values. During the last decade, there was a marked increase in the use of payment cards, with an 86% increase in payment values, to nearly NIS 1 billion per day in 2020.

With the exception of payments for housing, vehicles, and nonprofit organizations, payment cards accounted for 69.7 percent of household expenditure, an inordinately high figure by multiple measures.

The public migrated from in-person physical payments to remote digital use throughout 2020, particularly during lockdown periods, with almost no interruption.

In 2020, card-not-present (CNP) transactions accounted for approximately 58 percent of the value of all payment card transactions. The volume of mobile check deposits via check scanning using a smart phone application increased from 11% of all check presentations in 2019 to 21 percent in 2020. The stable behavior of supervised payments systems in Israel during these changes through the COVID-19 period attested to their robustness.

Measures taken in the payment systems field are intended to remove barriers and to lay the groundwork for future developments, while providing maximum flexibility for all stakeholders in choosing the services they want to receive and provide. Developments in the market are accompanied by appropriate regulation that ensures the stability of the supervised payment systems and their users.

In recent years, the payments industry in Israel has jumped dramatically, which is partly reflected in a significant increase in the number of local participants; the granting of a banking license, for the first time in forty years, to a new bank—the first to be fully digital; the separation of two credit

card companies from their controlling banks; and granting licenses to three additional payment system participants. In addition, two integrated companies that operate stable payment systems—MASAV (the Banks Automated Settlement System) and SHVA (Automated Banking Services)—will be managed separately, for the first time since their establishment. One of the companies deals with the area of bank transfers and instant payments ("Faster Payments"), and the other focuses on payment cards in Israel. The market has made significant progress in the transition from the use of plastic cards with magnetic stripes to contactless payments, both through proximity technologies in physical cards and through digital wallets on smartphones. Additional changes include the transition of payment card settlement infrastructure to daily settlement; transitioning public transport from payments with cards to payments using mobile applications; and significant progress in many other channels—from bank transfers to implementing faster payments, from traditional banking to open banking with application software interfaces (APIs) and payment initiation, from paper checks to digital or electronic debit orders.

The Israeli market, which is relatively small, is upgrading itself and is about to become one of the most advanced payment markets in the developed world. The jump in Israel is based on an advanced market in which there are electronic payments via payment card, bank transfers and ZAHAV (Real Time Gross Settlement System) transfers between customers. All of these together accounted for about 87 percent of total payment value in 2020, out of NIS 7,569 billion per year in Israeli payment systems activity including ZAHAV, MASAV, ASHRAIT, ATMs¹ and the paper-based clearinghouse. The Bank of Israel has led and will continue to lead processes to expand immediate payments; to encourage the entry of new participants through direct access to payment systems; to reduce the duration and cost of cross-border payments; to motivate the government to act as a catalyst for the adoption of advanced digital payments; and to expand the ability to collect data from payment systems and to implement BI² tools, in order to better lay out payment system policies. The Bank of Israel has also decided to accelerate the study, research, and preparation for a possible issuance of digital currency by the Bank of Israel in the future.³ Through a series of measures, the creation of incentives, and the encouragement of participants in various ways, the Bank of Israel, along with other regulators, is succeeding in initiating these processes. Additional future steps that will be examined will aim to advance the processes and complete them. In the background, thanks to responsible management and constant supervision, the payment system in Israel is showing resilience and business continuity. These have enabled the increase in the use of nonphysical payments during the COVID-19 pandemic and the implementation of various regulatory reforms to increase the use of digital and electronic payments and to limit the use of cash and checks.

The Bank of Israel Governor has stated several times that he sees the progress of the payments system in Israel as a pillar in the Bank's progress strategy. Therefore, he plans to continue to lead initiatives to reduce the gaps between the Israeli economy and the most advanced countries, to move the domestic payments ecosystem to the world's cutting edge, to attract more international players, and to encourage Israeli fintech companies to operate in Israel.

This survey mainly examines events in the years 2018–2020, and presents data for those years. However, since the date of publication is at the end of 2021, there is also as much discussion as possible of events in the field during that year.

Chapter 1 | Main Developments in Recent Years



USE OF PAYMENT APPLICATIONS



2016 | 1% General

2018 | 12% Money transfer to a private individual | 8%

2020 | 31% Money transfer to a private individual | 34%

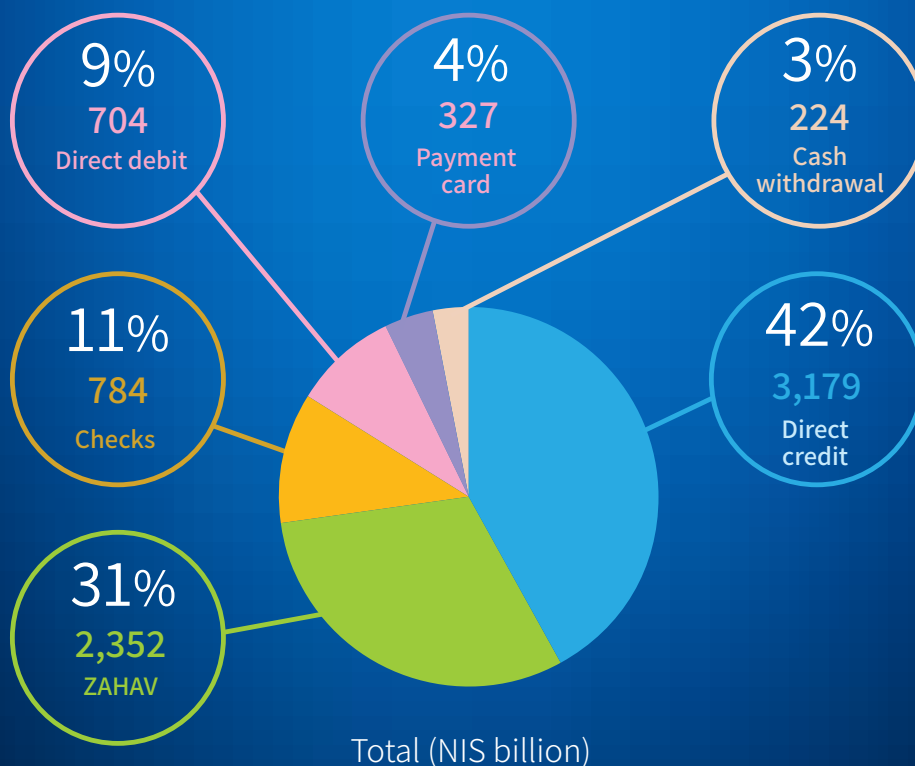
Payment for service

Household help, gardener, babysitter, electrician, plumber, etc.

Payment for service

Household help, gardener, babysitter, electrician, plumber, etc.

Distribution of customer payments in 2020



Payment system availability

3-year average: 2018-2020



99.988%



99.999%



99.974%



99.996%

Overview of major developments

The multiyear regulatory, business, supervisory, and strategic moves resulting from the desire to increase competition in the banking industry, while striving to reduce the use of paper-based means of payment in order to reduce the black market economy, have spawned various developments and contributed to accelerating the advancement of payment systems and means of payment, in addition to technological developments in Israel and around the world.

Significant development of digital payment and wallet apps

Significant development of digital payment and wallet apps began in 2017.⁴ For several years now, the BIT, PEPPER, and PAYBOX applications have existed in Israel, enabling person-to-person (P2P) payments. Over the years, the adoption and use of these applications by the general public have increased, as have the services they provide, and these applications are now also used for person-to-business- (P2B) payments. The expansion of the adoption by the public and additional measures taken by the Bank of Israel (which are elaborated on below) led to an increase in the supply of those offerings. In the last year, the number of banking applications that make digital wallets available has increased, the three credit card companies have added digital wallets to the applications they provide to their customers, and two international companies have launched their own wallets. As of December 2021, when this review was written, there are 8 active digital wallets in Israel.

At the end of 2020, five payment applications for public transportation were launched, three of which are operated by private companies. The introduction of these applications marks the new reform of the means of payment in public transportation in Israel—mainly the accessibility of new payment applications to the public. In this way, the country will align itself with advanced public transportation systems in the United States and Europe, using a technology method that is unique to Israel.

In 2019, the Bank of Israel published a policy paper on the activity of banks' payment applications at businesses.⁵ The paper reviews the development of the main applications introduced in the years prior to its publication, and presents the Bank of Israel's position regarding the payments market and the outline of the activity of bank payment applications in the coming years. Indeed, in 2021 we are witnessing an increase in the public's use of payment apps and digital wallets. This increase is also reflected in the results of our own surveys. In a survey conducted in 2016, when apps in Israel were

still in their infancy, only a very few of those surveyed stated that they used apps for payments, and just 1 percent stated that they used apps to transfer money. In another survey, conducted in 2018, we already saw a significant natural change that corresponds directly with the development of applications in Israel and with an increase in their number. We have started to see the first signs of growth in statements about using apps in physical businesses, about 4 percent, and especially an increase in payments through apps. About 12 percent of those surveyed reported using an app to transfer money to an individual, and about 8 percent stated that they used an app to pay for a service rendered to them—for a lawyer, a gardener, domestic help, etc.—as well as for the payments of residential rent or payments to a condominium committee. In the latest survey, which was conducted in December 2020, there was a significant increase in the entire service range, but the most significant increases were in the following uses: payments to domestic help / gardener / babysitter / electrician / plumber—about 34 percent; and payments to another private person—about 31 percent.⁶

In addition to the surveys on behalf of the Bank of Israel, the Competition Authority conducted a study in the area of digital platforms and payment apps that provide payment transfers between individuals.⁷ The results of the study indicate the existence of a significant "network effect"⁸ in the provision of P2P money transfer services. As the number of users of the product increases, the product has greater benefit for them, and its value increases. The results of the study also indicate a market structure in which there is a main leader—an app through which most of the regular⁹ money transfers between individuals are made. This situation makes it difficult for other apps to compete in the area, and even increases the potential for disservice to consumers.

In view of these findings, the Competition Authority recommends weakening the network effect in payment or money transfers between individuals by creating connectivity between P2P transfer apps, so that each consumer or individual is able to use an app that meets his or her needs without his or her choice being affected by the number of users. At the same time, the Competition Authority recommends that apps not be prevented from using the information they are accumulating on customers, in order to maximize the value to the customer by offering the products that are most tailored to his or her needs.

During 2021, the Bank of Israel set up a committee for mobile payments, and it held a public consultation¹⁰ to address various mobile payment issues that, in the public's opinion, require examination and perhaps even regulation. Respondents were asked to address issues such as the problem of mutual recognition between payment applications, the need for an interface to make P2P payments, the manner of collection and storage of information resulting from mobile payment activity, the use of this information, and more. At the time of writing this review, the committee's work is in progress.

EMV standard in Israel

The accelerated development of digital applications and wallets in recent years reflects the innovative technology applied in Israel in the sphere of payments. The acceleration heralds the reform of payments in businesses thanks to the outline for implementing the EMV¹¹ standard in Israel—one of the most prominent reforms implemented in Israel. The EMV standard was developed by the three largest credit card companies in Europe—Europay, MasterCard, and VISA—to secure credit card purchases and prevent fraud and counterfeiting as much as possible through almost certain identification of the cardholder. EMV is a smart chip, installed in the credit card in place of the magnetic stripe, and has information attributed solely to the card on which it is installed. Settlement is done by reading the chip and entering a PIN number. The PIN is given upon issuance of the card and is also used to withdraw cash from ATMs. Along with the implementation of the smart chip in credit cards, a complementary move has been made to turn credit cards into smart cards, with technology that enables contactless operations. In parallel with these measures on the side of the cardholding consumer, complementary measures have been taken on the side of the businesses, so that the points of sale will be converted into smart points of sale, capable of receiving secure payments with the EMV standard and contactless payments. The transition on both the consumer and business sides essentially spawned the reform with regard to payments at businesses in Israel, including making contactless payments via smartphones and advanced payment applications. This step strengthens competition in the areas of issuance and settlement by removing an entry barrier for new participants from Israel and from abroad, and reduces the risks of counterfeiting and misuse of payment cards, by upgrading security mechanisms.

In recent years, the Bank of Israel has issued a number of guidelines on this subject.¹² In addition to these guidelines, as part of the economic program to deal with the COVID-19 crisis, the Ministry of Economy and Industry's Small and Medium Business Agency and the Ministry of Finance launched a program¹³ to assist in the implementation of settlement using the EMV standard. The program has allowed businesses to receive a refund of up to 80 percent of the implementation costs. This measure to convert payment card activity in Israel to EMV, which is led by the Bank of Israel, aligns the situation with other advanced economies in the world, enabling new and innovative value propositions in Israel. Progress in installing the terminals also enables an advanced customer experience. A number of digital wallets¹⁴ have already started operating in Israel in recent months.

Digital direct debit

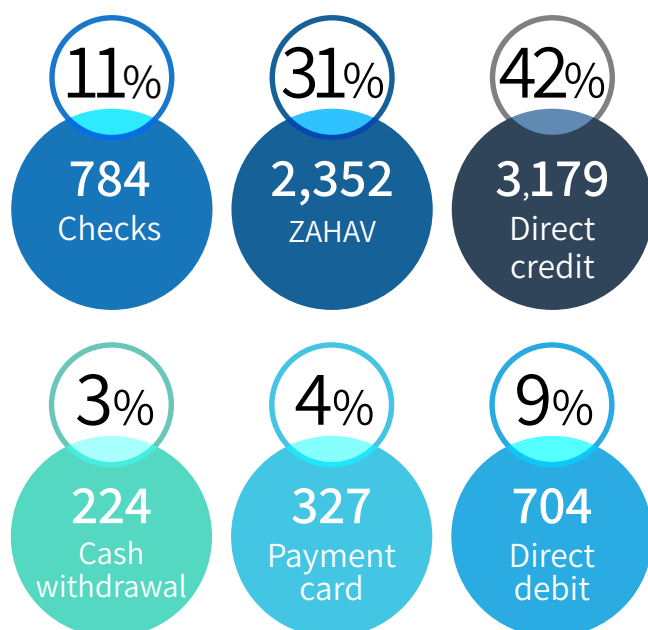
Digital wallets, payment applications, and the payments revolution in Israel, for both customers and businesses, are being implemented in Israel as part of a natural process that is developing all over the world as the public transitions from paper-based payment methods to digital means. Further to this process, the development of new infrastructure and means of payment was examined. For example, the process of making the physical check completely digital began in 2017, and an examination of the digital debit order was conducted, as part of which the business model for a digital debit order was built. This was presented to the general public in a webinar where the processes were brought into sharper focus. The examination will be expanded in the coming year. This was in parallel with the enactment of the Electronic Check Clearing Law, 5776–2016, which allows the process of presenting

the check to be converted into a digital process by scanning it on a cellphone. Subsequently, a law was enacted to reduce the use of cash (as detailed in Chapter 4 on regulation), which imposes restrictions on the use of physical checks. This all formed the background for the public's increasing preference for the use of digital means of payment and digital services during the COVID-19 crisis in 2020 and the first half of 2021. However, a significant proportion of citizens prefer to continue using checks, mainly because of their unique characteristics.

Insights and findings generated by a consumer survey conducted in 2021¹⁵ regarding the Israeli public's preferences for checks and the preservation of their characteristics showed that checks are mainly used for substantial value, that businesses use checks more than individuals, and that checks are mainly used to pay wages and salaries, residential rent payments, debt/loan repayments, and gifts for events and celebrations. It was also found that the public prefers checks "for the payee only". The survey's findings show that the public would like to preserve the following characteristics of the traditional check: the use of a check that is separate from the bank's credit line; restricting the check with the words "for payee only" as a default; and limiting the account or amount on the check for young customers. In contrast, the public would like to see the following characteristics improved: the validity of the payment order is too long—about six months from the check date—which is disadvantageous for both the payer and the recipient, and is worth shortening; the inability to know what the payer's history of conduct is (assuming that he or she is not restricted), since it is advisable to decide whether or not to accept the payment based on the payer's past conduct; physical difficulty, including with regard to the physical delivery of checkbooks, ordering checkbooks, filling in details, and more; security issues due to loss, theft, or counterfeiting; customer difficulty in tracking payment transactions; and returned (bounced) checks.

The use of checks in Israel is extensive, totaling about NIS 784 billion—11 percent of total customer payments—in 2020, with returned (bounced) checks totaling NIS 34.2 billion, which is 4.36 percent, 78 percent of which (NIS 26.7 billion) were due to technical reasons.

Figure 1 - Distribution of customer payments in 2020



Amounts in NIS billion.
SOURCE: Bank of Israel.

Faster Payments —A retail payment system for real-time settlement

In addition to examining advanced innovative means of payment such as the digital debit order, many countries around the world have in recent years seen an acceleration in the establishment of real-time retail payment systems, which are infrastructures for making faster payments. This type of infrastructure is in different stages of planning and development in different countries. Faster payment is a new means of payment, in which the payer is immediately charged the amount of the payment and the payee is credited immediately, which allows the payee to make immediate use of the amount of money entering his account, similar to a cash payment. This is unlike most payment methods common in Israel today—checks, bank transfers, deferred debit card, prepaid card, and others—where the beneficiary is not credited immediately. The Bank of Israel's actions in this area include the following:

A

In November 2017, the Bank of Israel issued a public call for information on the establishment of a faster payments settlement infrastructure in Israel.¹⁶ The Bank received a number of responses from various entities—some from Israel and some from abroad. These focused on three main categories: (a) development of faster payments settlement infrastructure; (b) development of ancillary services for infrastructure activities with an emphasis on developing a platform that will enable connection to the new infrastructure; (c) general discussion of the subject. The public call has motivated various stakeholders in the payments system to set up a faster payments infrastructure, and the main development in the area is MASAV's initiative to develop and implement a faster payments solution over the existing payment infrastructure. This project is in advanced stages, and the Bank of Israel is guiding it to ensure that the service is stable and efficient, will meet market needs, and will also comply with international standards. Under instructions from the Bank of Israel, the operator of the MASAV system and its participants were prepared by the end of 2020 to enable their customers to receive payments through the faster payments service.

B

In August 2020, the Bank of Israel published a policy document on the need to establish a faster payments infrastructure in Israel.¹⁷ The document included a general reference to the Bank of Israel's expectations regarding the characteristics of a faster payments system in Israel. These include: 1. A faster payments infrastructure that will allow such payments to be made directly from the customer's account, so that the funds will be reflected and available for use by the beneficiary within a few seconds; 2. Transfer of payments between different digital wallets—including person-to-person, person-to-business, and business-to-business, as well as between institutions, including government ministries; 3. Transfer of payment requests between users; 4. Extension of services for the transmission of broad information or files together with the payments, such as bill payments. 5. Possibility to make payment against delivery (DVP—Delivery versus payment); 6. Connecting the Israeli faster payments infrastructure to similar infrastructures around the world, which may enable cross-border payments.

Increasing competition in the payments and settlement field

Another significant issue that affects the payments field in Israel, and was discussed by the Committee to Examine Reducing the Use of Cash in Israel's Economy (the "Locker Committee") is increasing competition in the payments and settlement field. The basic assumption is that the benefit to the customer is the focus, and action must therefore be taken to increase the range of services offered. To this end, and in order to promote innovation and competition, the Bank of Israel is working to encourage the provision of open access to the payment systems to nonbank entities¹⁸, including advancing access to the ZAHAV and MASAV systems. In doing so, the Bank of Israel is also helping to remove entry barriers for new participants in the payments field, for example by streamlining, shortening, and simplifying the process of granting merchant acquirer licenses. The Bank of Israel is also active, in cooperation with other regulators, in promoting legislation of the Payment Services Law, which addresses two aspects: the obligations and interests of payment service providers in relation to their customers, and the rules regarding licensing of various service providers. (Please see details in the chapter on Regulation).

In addition to these, the Increasing Competition and Reducing Concentration in the Banking Industry Law, 5777–2017—which took effect in 2018—set out a major step of increasing competition in retail credit by 2020.—As part of the implementation of this law, two credit card companies, Isracard and max¹⁹, were separated during 2019 from the large banks that owned them: Hapoalim and Leumi, respectively. The transformation of these companies into independent financial entities is expected to create diversity and competition in the economy. This includes, for the first time, two licenses being granted to new merchant acquirers—"Tranzila" and "Cardcom"—which are expected to start operating in the economy in the very near future.

Moreover, for the first time in 40 years, a license was granted to One Zero—the first digital bank established in Israel. The Bank of Israel led joint efforts to connect the new bank to all payment systems, including the ZAHAV system, the Paper-Based (Checks) Clearinghouse, the MASAV system, and the ATM system.

The Capital Market, Insurance and Savings Authority also granted a license to the Credit and Savings Union in 2021, and the Ofek Credit Union is expected to connect to the payment systems and start operations. As of the writing of this report, it is a matter of granting a temporary license of about two years to complete the technological preparations for obtaining a full license for taking deposits and extending credit in accordance with the company's areas of practice. This type of license is the first to be granted to a credit union in the new format of the Supervision of Regulated Financial Services Law.

Another precedent-setting change has recently taken place in two companies that manage prudential payment systems. The SHVA (Automated Banking Services) company was owned by the banks, and the "Strum" reform required that it be separated from them. Accordingly, it was issued to the public on the Stock Exchange, so that control passed to the public. SHVA operates the "Ashrait" payment system for payment cards and the ATM system for cash withdrawals and deposits. MASAV (Banks' Automated Clearing System) is owned by the banks, and operates a payment system for bank transfers and a system for faster payments. Since their establishment, the two companies have been integrated, with joint management and using the same technological infrastructure and offices. The two companies are in the process of separating their managements.

Another step to increase competition in the payments market is the entry of the daily clearing and settlement mechanism in July. Merchant acquirers began to receive payments every day from payment card issuers for transactions in which the customer paid by card, compared to once a month before that. Payment to the business is only forwarded automatically if the business reaches agreement with the merchant acquirer, which has opened a new area of competition between the merchant acquirers. This is a significant move in the world of payments in Israel, and its purpose is mainly to help small businesses receive payment card payments from their customers within a few days, a move that is expected to ease their cash flow. This step was carried out in cooperation between the Competition Authority and the Bank of Israel.

Advancing nonbank entities' access to payment systems

a. Access to the ZAHAV system - In December 2020, a document was published regarding the opening of access to the ZAHAV system.²⁰ The document sets out the conditions of access to the system, the ways of submitting an application, and the system's connection requirements. It details the advantages of direct access to the ZAHAV system by nonbank payment service providers. Such access will allow increased competition in the payment system and eliminate dependence on a representative bank for the purposes of financial settlement and for signing the rules of the system, and will also reduce the burden and risks that direct settlement participants currently carry as representatives of nonbank payment service providers. This move in the ZAHAV system is supported by the recommendations of the Committee to Increase Competition in Common Banking and Financial Services (the "Strum Committee") and the International Principles for Financial Market Infrastructures (PFMI)²¹.

b. Access to the MASAV system - In May 2020, the Bank of Israel issued a directive to MASAV and its participants to establish rules for the participation of nonbank payment service providers.²² The directive addresses additional issues, including layers of representation, such as representation in settlement, representation in the MASAV system rules, and technical representation; the tools for representation; choice of representation model; collection of fees; and schedules for preparation. This directive also prohibits system participants from unreasonably refusing to represent payment service providers in it, thus allowing credit card companies and other supervised entities to participate in the faster payments service and provide the general public with instant settlement services through digital wallets, payment apps, and more. The directive will also allow additional participants to enter the payments market—including credit card companies, which in the past had only limited ability to operate as participants in the payment systems—without representation by existing participants in the MASAV payment system. This step will help to increase competition in the sphere of payments and will encourage innovation in the means of payment.

Regulation in the area of payments and settlement

The Reducing the Use of Cash Law

Following the recommendations of the Committee to Examine Reducing the Use of Cash in Israel's Economy (the “Locker Committee”)²³, the Reducing the Use of Cash Law was advanced.

The Committee's recommendations addressed two complementary aspects: setting restrictions on the use of cash, open (uncrossed) checks and check endorsements—an aspect that was addressed in the law²⁴; and taking significant steps to promote the use of advanced digital means of payment. The provisions of the law were implemented in two stages. In January 2019, the sections of the law that apply to restrictions on the use of cash and checks²⁵ came into force, and they apply universally to every person.²⁶ In July 2019, the sections of the law relating to restrictions on cashing checks by the banks came into force.

With regard to the implementation of the law and the public information processes, the Bank of Israel acted in conjunction with the Banking System within the framework of the Banks' Clearinghouse Committee to implement the sections of the law relating to checks, which took effect in July 2019. The Bank of Israel took various actions to make it easier for customers as the law took effect. These included allowing customers to deposit post-dated (deferred) checks drawn before the effective date of the law for holding at their bank at a reduced cost of NIS 2²⁷ (instead of NIS 12–15 at the various banks) regardless of the method of the deposit—through either a teller or a direct channel—without the limitations of the law applying to those checks.²⁸ The actions also included updating the uniform check standard to assist customers in implementing the provisions of the law²⁹; guidance and information through seminars³⁰, lectures and "round tables" in settings open to the general public, as well as in designated professional settings³¹; information through interviews on television, in the press, and on the radio; and the launch of a public awareness campaign on television and through the press (general and sectoral) in July 2019.

Easing the process of granting merchant acquirer licenses

In recent years, the Bank of Israel has taken a number of steps to significantly reduce entry barriers and allow new merchant acquirers to enter the market in Israel, in addition to the three credit card companies' currently active in this market (Isracard, CAL and max). In this context, a procedure was established for obtaining a merchant acquirer's license, which included: **shortening and streamlining the licensing process**, while providing regulatory certainty regarding the granting of the license before significant investments are made, especially in the technological area and in the area of human resources recruitment; and **substantial relief regarding equity requirements and significant regulatory relief** for financial entities that have little impact on the stability of the financial system and the payment system. The reliefs were given in the areas of corporate governance, risk management, and other regulatory provisions. Later in this process, numerous applications were received from companies interested in obtaining a merchant acquirer's license, and after an in-depth examination, including an examination of the company's business plan and its contribution to the Israeli economy, two of them were approved and granted licenses: Tranzila Ltd. in 2017 and Cardcom Ltd. in 2018.³² Since then, these companies have been organizing administratively and operationally toward the beginning of their operations as merchant acquirers, and it is estimated that their activities will be beneficial for the merchant acquiring market. They will **enhance competition in this market**, creating an alternative for businesses and reducing settlement fees paid by businesses, leading to improved service and increased innovation.

Payment Services Law

In recent years, the Bank of Israel, in conjunction with government ministries, has been promoting a payment services law, which is based on the Payment Cards Law and the European Payment Services Directive (PSD)³³, hereinafter the **Payment Services Law, 2019**. The payment services to which the law refers are account management, issuance of means of payment, settlement of payment transactions, and operation of ATMs.

The main principle is to adapt the legislation to the developing world of payments, while maintaining technological neutrality, in a way that will encourage future developments in the sphere of means of payment and prevent the formation of a legal vacuum regarding consumer protections in view of expected developments.

The regulation of payment services is promoted in two parts: legislation relating to the service itself, and legislation concerning the licensing of various service providers:

1

Payment Services Law – The **Payment Services Law, 2019**, deals with obligations and rights between payment service providers and their customers, and regulates issues such as formation of a contract, due diligence, misconduct, and the interaction between payment services and the underlying transactions. The law is intended to create uniform consumer protections and apply these protections to new means of payment in a forward-looking manner. The law was drawn up and advanced by the Ministry of Justice, took effect in October 2020, and is the result of cooperation between the Bank of Israel and the Ministry of Justice, the Ministry of Finance, and the Competition Authority.

2

Legislative Memorandum regulating payment services (licensing and supervision), published as an amendment to the Supervision of Financial Services (Regulated Financial Services) Law, 5776–2016 - The amendment to the Supervision of Financial Services Law is expected to add a new type of payment services license. The terms of the license are risk-based, and will allow nonbank entities to enter this field while complying with lighter regulatory requirements than those pertaining to a banking corporation, but under conditions that ensure a lower level of risk. This license will allow nonbank payment service providers to connect to payment systems, thus becoming significant participants in the payment systems in Israel. The legislative memorandum was first published in August 2018, and the legislative process is currently continuing.

Broadening advanced digital services for the customer

These steps to introduce new participants put the customer's interest at the center. They expand value propositions for customers in the banking services field, help increase the customer's control over his or her banking information, and enable new businesses and new entities to provide their customers with innovative digital services.

Open Banking

In recent years, especially in Europe, regulations have developed in the field of Open Banking that allow banks and credit card companies to share their customers' financial information with third parties—new participants, not necessarily banks. These will be able to access a customer's bank account, subject to his or her consent, and offer banking services tailored to his or her needs³⁴. The Bank of Israel is working to lead Open Banking in Israel, recognizing its importance to all customers and financial participants, and has therefore formulated a uniform standard, based on NextGenPSD2³⁵, with the necessary adjustments for the Israeli financial system. In this context, in February 2020 the Supervisor of Banks published Proper Conduct of Banking Business Directive 368 - "Implementation of the Open Banking Standard in Israel"³⁶. The purpose of the directive is to lay the groundwork for open banking in the country, including the obligations, customer protections, and risk management tools for the banks and credit card companies. The directive also sets out the requirements of those entities in their role as payment account managers, as a source of information as well as information users (consumers) and payment initiators themselves. Phase I of Open Banking, which focuses on financial information from customers' current accounts, was launched in April 2021. In the advanced stages, financial information will be available for viewing in other areas, such as credit cards, consumer credit, and deposits. In the future, Open Banking will allow third parties to initiate payment orders, subject to the customer's consent, on behalf of various beneficiaries. Once legislation and regulation in this area are completed, fintech companies and other entities, which have licenses issued by other regulators, with whom a customer chooses to share his or her information will be able to perform payment operations on his or her behalf. In addition to implementing the vision of Open Banking in Israel, significant steps have been taken that place the customer at the center, so that a variety of banking services and innovative digital payment services will be available to him or her—including digital banks.

Digital Bank

One Zero—the first digital bank to be established in Israel, which began operations in March 2021—is paving the way for more digital banks in the future. It is an advanced alternative to traditional banking, offering increased digital services to the customer.

"One-click mobility"³⁷

Many customers in Israel and around the world manage their account in one bank for many years. One explanation for this is customers' concern over the bureaucratic difficulty involved in transferring their bank account to another bank. This concern is an effective barrier to competition between banks, since it leads customers to avoid making a change, and therefore, under certain circumstances, they continue to consume banking services under conditions that are less optimal (both in terms of price and in terms of service). To deal with this undesirable situation, the Bank of Israel, together with the Ministry of Finance, is acting to promote competition in the banking system and strengthen the power of the banking consumer. As part of this, the Banking (Service to the Customer) Law, 5741–1981 was amended³⁸, to stipulate that banks must establish an online system for transferring bank accounts—hereinafter the one-click mobility project—to allow the customer to transfer his financial activities online, conveniently, within seven business days, and at no cost. The law came into force in September 2021.

The current account activity that will be transferred automatically includes: credit and debit balances in shekels and foreign currency; direct debit authorizations; standing orders; checks from checkbooks issued by the old bank and presented after the bank account transfer date will be presented directly to the new bank account; Israeli and foreign securities, including transferable mutual funds; authorizations for debiting a nonbank payment card; and authorizations for debiting a bank payment card.

On September 22, 2021, the Bank of Israel launched the online system for one-click mobility between banks. As part of the new system, bank customers will be able to transfer their bank accounts between banks online and at no cost. The transfer itself will be completed within 7 business days, and after the transfer of activity, the customer's old bank account will be closed automatically and all credit and debit services in the account will be transferred to the new account through a "follow me" service. The system, which was developed over the past three years by the banking system and MASAV—the main operator of the credit and debit system—removes the main mobility barrier that was preventing competition from developing—the easy transfer of a customer's credits and debits from one bank account to another.

One-click mobility
2021 update

Payment and settlement standards

ISO20022 - Aligning with the world for the implementation and use of the international standard

Using a uniform international standard for the format of payment system messages transmitted between financial entities and payment services will allow all entities currently operating in the area of clearing and settlement, and those who want to enter this field in the future, to communicate uniformly with each other, with businesses and with payment systems.³⁹ The main advantages of using the ISO20022 standard are streamlining existing clearing and settlement processes by increasing the ability to transmit more information within the payment message; strengthening the ability to enforce the law banning money laundering and the financing of terrorism; assisting in strengthening business continuity, reducing risks and promoting competition; and adapting Israel's banking system to the binding international standards set out by the Society for Worldwide Interbank Financial Telecommunication (SWIFT).⁴⁰ Therefore, in order to enable technological and financial innovation, add advanced tools and new capabilities to payment systems, meet international standards, and create an advanced platform for the Israeli banking system, the Payment and Settlement Systems Department is currently working in conjunction with the banking system to promote the implementation of the new standard.

QR code payment as part of a variety of contactless payments

QR codes⁴¹ are used worldwide in many different fields, such as industry, marketing, and medicine, and their use in making payments is widespread and common. Payment via a QR code is an alternative to other payment processing technologies, such as Near Field Communication (NFC).

In July 2020, a policy document⁴² was published, following an examination of the use of QR codes to make payments. Among other things, the document examined the possibility of applying standards in this area in Israel. The main advantages of adding the option to make payments using a QR code are convenience, security, and the lack of need to install sophisticated equipment. However, there are also disadvantages in terms of the costs to the businesses that offer this payment method, and in terms of the speed of execution.

There are many standards for payment with a QR code, the main one being the international standard published by the EMVCo company. The standard sets out basic conditions for the use of a QR code to suit a variety of countries and entities, but is not binding. In Israel, payments via QR code are not as common as other means of payment. As part of an examination conducted by the Bank of Israel's Payment and Settlement Systems Department, it was decided that at this stage, binding regulations will not be issued for the use of the QR code standard by entities that do not operate in a 3-party model cross operation. However, the Bank of Israel also recommends that these entities act in accordance with the EMVCo standard with regard to payments via a QR code.

Payment and settlement system activity during the COVID-19 crisis

During the COVID-19 period, the payment system operators in the economy were excluded from the emergency regulations. In general, the controlled payment systems and their participants are supervised by the Bank of Israel. The supervisory criteria applied over the years to the payment systems and their participants, as well as emergency preparedness, stood the test during the COVID-19 period. The controlled payment systems and their participants took operational steps to separate employees and ensure continuity of activity in the ZAHAV system, the Paper-Based (Checks) Clearinghouse, MASAV, and SHVA.

The financial market infrastructure operated and continues to operate in a stable manner, providing the full range of services properly and fully. The systems and their participants were comprehensively prepared to deal with the crisis and took operational steps to separate employees and ensure the continuity of the activity.

In the months before the crisis, the Bank of Israel took steps to advance the infrastructure for making remote and contactless payments. These and other steps will continue, and they help in making payments easily and securely even in routine times.

In terms of the **means of payment and the various payment services** available, the sharp transition to payments by digital means was relatively easy and without significant problems, partly because before the outbreak of the crisis, the Bank of Israel led moves to advance infrastructure for remote payments, contactless payments, and card-not-present payments. The public continued to use advanced payment methods and digital payment services as well as paper-based means of payment, but the use of digital services and means became more important because most of the public was barred from going to bank branches for check deposits, withdrawals, ATM cash withdrawals, postal voucher payments, and other things, and used the digital means that it was offered.

Payment systems

The ZAHAV system

The ZAHAV system was operated in an emergency format at the beginning of the COVID-19 crisis. The liquidity status of the system participants was sound as during routine times, and was closely monitored. In addition, the ZAHAV committee held discussions for dealing with various events. After the end of the first lockdown, the ZAHAV system returned to normal operation, and continued in the same way during the additional lockdowns. During the COVID-19 period, the system was even upgraded, and its employees transitioned to a work-from-home format, with no negative effect on its functioning.

Paper-Based (Checks) Clearinghouse

The Paper-Based (Checks) Clearinghouse also operated in an emergency format at the beginning of the crisis, and the Paper-Based Clearinghouse Committee held discussions to deal with the various events. With the onset of the COVID-19 pandemic in Israel in 2020, a number of steps were taken:



The maximum amount for depositing a check via cellphone through the banking apps **was increased, beginning on March 24, from NIS 20,000 to NIS 50,000⁴³**, in order to help the public carry out banking transactions remotely during a period of numerous mobility restrictions.



In addition, **a process of remote payment of contractor vouchers for the purchase of a new home was approved.** This process was arranged in conjunction with the Sales Law Supervisor and the Banking Supervision Department. An arrangement was made with the Banks Clearinghouse so that the payment order could be executed through the settlement of the payment vouchers.

Due to these measures, during the COVID-19 period, the rate of check deposits via cellphones increased significantly, despite the decline in the use of checks in 2020.⁴⁴ The Value of transactions totaled about NIS 874 billion, a decline of 15.7 percent compared to 2019 and 23 percent compared to 2015. In parallel with the quantitative decline in the use of checks, the average value of the check increased.

The average amount of a payment by check in 2019 was about NIS 8,550, an increase of about 4.9 percent compared to the average of about NIS 8,150 in 2018. In 2020, the average check amount was NIS 9,350, an increase of about 9.3 percent compared with 2019. This trend is continuing, since the rate of decline of total check value per year—about 15.7 percent between 2019 and 2020—is significantly lower than the rate of decline in the number of checks, about 22.8 percent in the same period.

The use of cellphones to deposit checks has significantly increased since the service was introduced in 2016, due to its convenience and availability. The presentation of checks through cellphones has led to a decline in the share of checks deposited in the bank's systems, from about 94 percent of all check presentations in 2018—during which some banks increased the allowed amount of checks presented through cellphones to NIS 20,000—to 89 percent in 2019. The rate declined further to 79 percent in 2020. There are a number of main reasons for the constant increase in deposits via cellphone: the public's desire to operate remotely as much as possible; the increase in the amount allowed for depositing a check by cellphone, in order to help the public make banking transactions remotely during the pandemic; the lower availability of bank branches due to the closure of some branches during the period; the application of emergency regulations restricting mobility during various periods, which included a reduction of public transit service; and the guideline restricting physically going to bank branches to essential purposes only, e.g. receiving benefits and obtaining checkbooks.

Table 1: Rate of change in check activity and average check value, 2019 to 2020 and 2015 to 2020

	Annual check value *	Annual number checks*	Average check amount
Value in 2020	NIS 784 billion	NIS 84 million	NIS 9,350
Value in 2019	NIS 930 billion	NIS 109 million	NIS 8,555
Rate of change 2019 to 2020	(-15.7%)	(-22.8%)	9.3%
Rate of change 2015 to 2020	(-23.0%)	(-39.1%)	26.5%
Rate of change 2010 to 2020	(-13.5%)	(-44.4%)	55.7%

* Interbank and intrabank checks.

SOURCE: Paper-Based (Checks) Clearinghouse, Bank of Israel.

The data on returned checks, as reflected in Table 2, show that the significant annual amounts of returned checks, about NIS 37.3 billion in 2019 and about NIS 34.2 billion in 2020, were mainly due to technical errors—an error in the date, lack of a signature, deposit after the expiration date, mismatch between the amount in numbers and the amount in words, and so forth.

Table 2: Rate of returned (bounced) checks, 2018–2020

	Value of returned checks*	Value of returned checks* for technical reasons	Number of returned * checks	Number of returned checks * for technical reasons
Value in 2020	NIS 34.2 billion	NIS 26.7 billion	2.69 million	1.79 million
Returns as a share of all checks in 2020	4.36%	3.39%	3.2%	2.13%
The value in 2019	NIS 37.3 billion	NIS 29.7 billion	3.47 million	2.16 million
Returns as a share of all checks in 2019	4.0%	3.2%	3.2%	1.99%
The value in 2018	NIS 39.4 billion	NIS 32 billion	3.5 million	2.12 million
Returns as a share of all checks in 2018	4.1%	3.3%	3.0%	1.8%

* Interbank and intrabank checks.

SOURCE: Paper-Based (Checks) Clearinghouse, Bank of Israel.

The downward trend of the average number of checks per month: The number of checks presented dropped from about 9.8 million checks per month in 2018 to about 9.1 million per month in the first half of 2019, until the restrictions regarding the payment of checks by banks took effect under the Reducing the Use of Cash Law, and to about 8.9 million per month in the second half of 2019, after the restrictions were applied. The average monthly number of checks presented was significantly affected by the COVID-19 pandemic, and during 2020 it fell to about 6.9 million.

Together with the downward trend in the number of checks and their total value, there is an upward trend in the average value per check. Despite the mobility restrictions that reduced the use of checks, their use seems to have mostly been focused on payments of large amounts, because of the distinctive nature of this means of payment and the possibility of not exhausting the credit line at the bank.

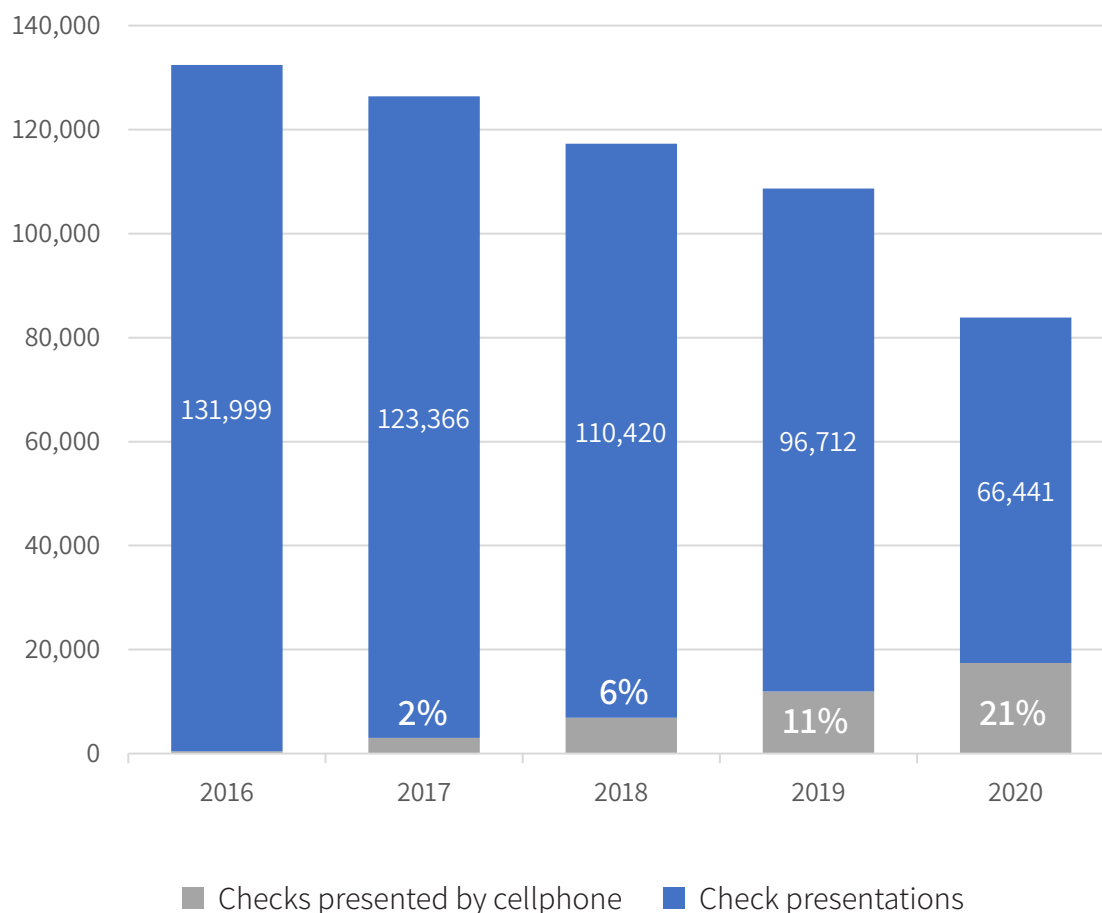
Table 3: Checks presented via cellphone, quantity and as a share of the total number of checks presented, 2016–2019

	2016	2017	2018	2019	Rate of change from 2018 to 2019
NIS 0 to 5,000	405,473	2,689,131	6,066,714	10,288,883	69.6%
NIS 5,000–10,000	54,157	325,209	720,257	1,241,855	72.4%
NIS 10,000–15,000	1,725	9,004	54,698	270,695	394.9%
NIS 15,000–20,000	-	-	28,458	139,515	390.2%
Total checks presented via cellphone	461,355	3,023,344	6,870,127	11,940,948	73.8%
Total checks presented	132,460,275	126,389,317	117,290,302	108,253,075	(-7.7%)
Checks presented via cellphone as a share of the total number of checks presented	0.35%	2.39%	5.86%	11.03%	

* During 2018, the amount permitted for check presentations via cellphone was increased to NIS 20,000.

SOURCE: Paper-Based (Checks) Clearinghouse, Bank of Israel.

Figure 2: Number of Checks Presented, and Rate of Checks Presented by Cellphone 2016–2020 (thousand)



* The rate of checks presented via cellphone in 2020 is based on partial year data.

SOURCE: Bank of Israel.

During 2018, the limit on the amount of checks presented via cellphone was increased to NIS 20 thousand.

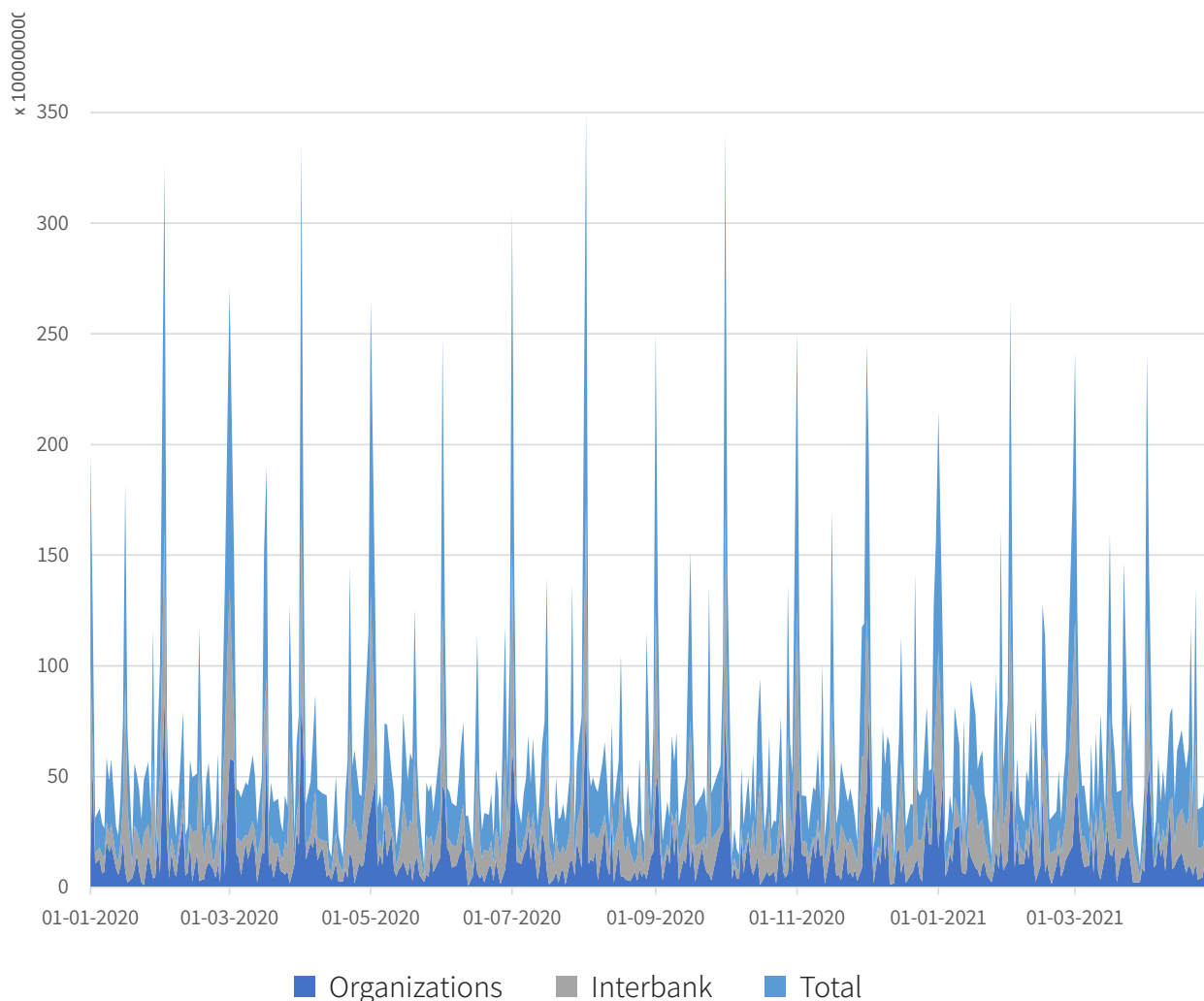
In March 2020, this amount was increased to NIS 50 thousand.

The controlled payment systems that are not operated by the Bank of Israel

At the beginning of the COVID-19 period, the controlled payment systems that are not operated by the Bank of Israel operated in an emergency format, and were prepared to deal with the crisis at the organizational and technological level.

MASAV

Figure 3: Net MASAV Settlements in the ZAHAV System (NIS million)



SOURCE: ZAHAV system, Bank of Israel.

In the MASAV settlement system, there were no significant changes in the value of activity in the period between the beginning of 2020 and June 2021.

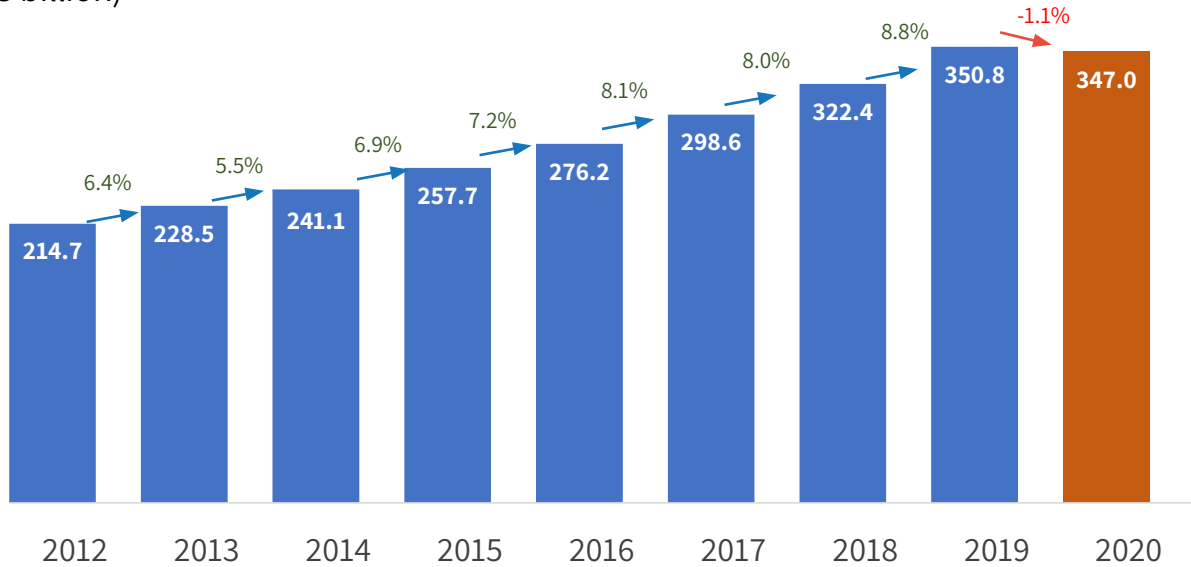
SHVA

- The greatest decline in activity was observed in April 2020, the peak of the first lockdown. Compared to April of previous years, the level of transactions in this month was similar to April 2015.
- Between the lockdowns, the level of transactions recovered in all districts relative to the level of transactions in the corresponding months in 2019.
- In the Tel Aviv, Jerusalem, and Central districts, which even during routine times typically have a high rate of remote transactions—online or by telephone—the number of these transactions increased significantly during the lockdown periods. In all other districts, the increase was more moderate.

Analysis of payment card activity

Payment card transactions in Israel totaled NIS 347 billion in 2020, a decline of 1.1 percent compared with 2019. This followed an average growth rate of more than 8 percent between 2017 and 2019 (Figure 4).

Figure 4: Total Payment Card Transactions and Annual Rate of Change, 2012–2020
(NIS billion)



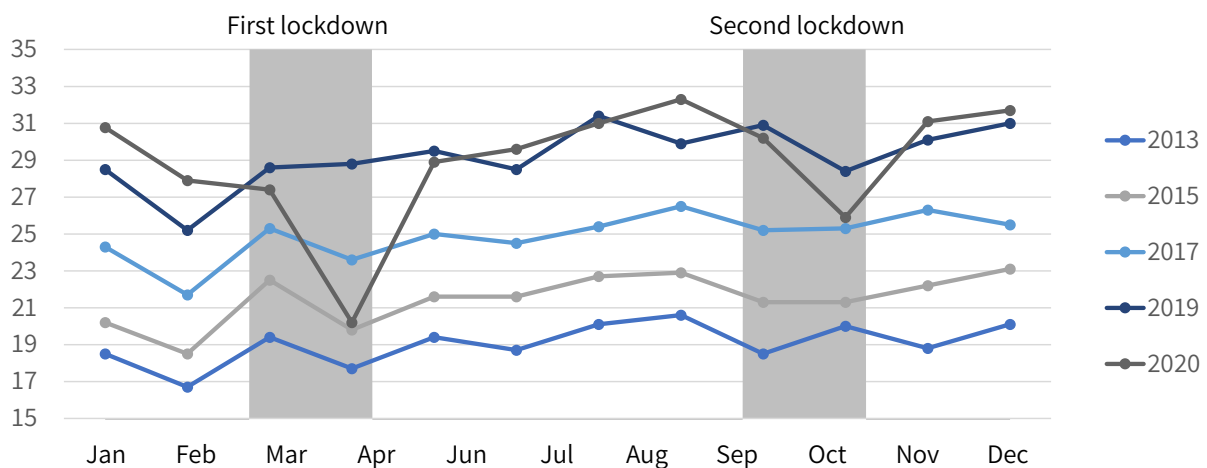
SOURCE: SHVA and Bank of Israel calculations, including transactions in Israel and abroad.

An examination of the total number of payment card transactions from 2013 to 2020 shows that the steepest decline in activity in all of 2020 occurred in April, at the peak of the first lockdown, and compared to the months of April from previous years, the level of transactions in that month was similar to April 2015.

A more moderate decline in activity took place in September and October 2020, during the second lockdown period. The level of transactions at the peak of the second lockdown, in October 2020, was similar to their level in October 2017⁴⁵ (Figure 5).

These results may indicate that the Israeli economy managed to adapt in order to continue operating in the shadow of the COVID-19 pandemic and its restrictions.

Figure 5: Total Payment Card Transactions by Month, Selected Years (NIS billion)



SOURCE: SHVA and Bank of Israel calculations.

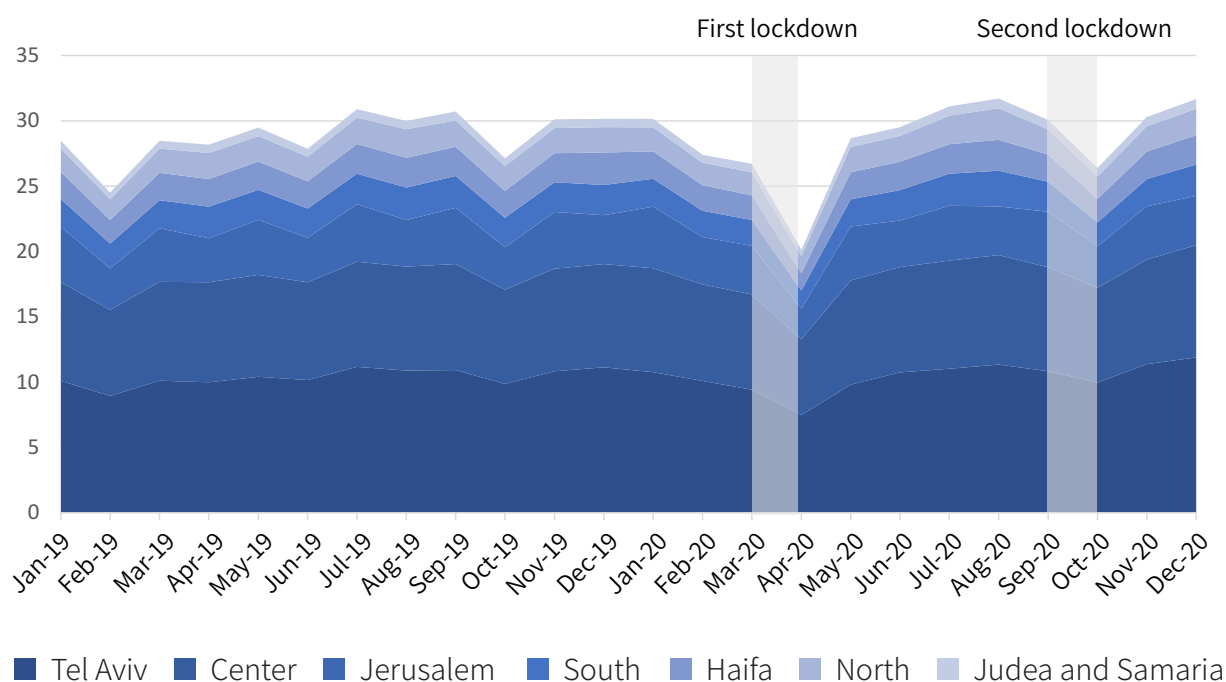
Payment card transactions in Israel by district

The largest declines in total monthly payment card transactions by district during the first lockdown were observed in the group of localities belonging to the Jerusalem district (approximately 37 percent) and in the group of localities belonging to the Haifa district (approximately 30 percent). Smaller declines (about 20 percent) were observed in the Tel Aviv and Central districts.

The greatest declines in payment card activity during the second lockdown were observed in the Jerusalem district (approximately 25 percent), similar to the first lockdown, and in the Southern district (approximately 20 percent). Smaller declines were observed in the Tel Aviv district (approximately 8 percent) and in the Judea and Samaria district (approximately 9 percent).

In total, the group of localities belonging to the Jerusalem district had the greatest decline in payment card activity due to the lockdowns. In the period between the lockdowns⁴⁶, the level of transactions recovered in all districts relative to their level in the corresponding months in 2019 (Figure 6).

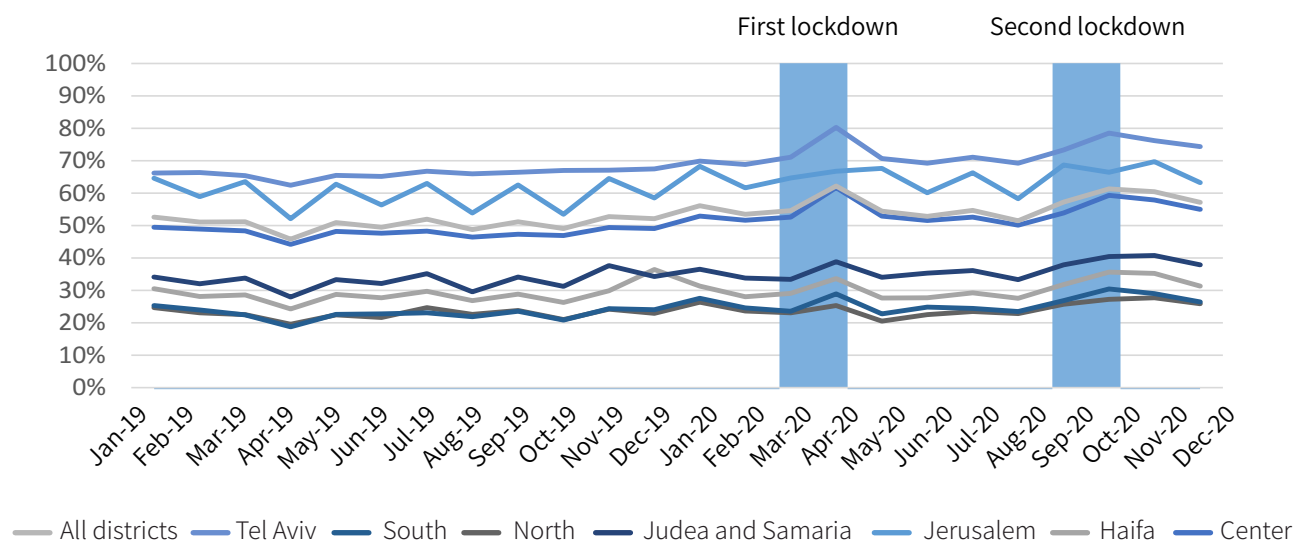
Figure 6: Total Monthly Payment Card Transactions by District, 2019–2020 (NIS billion)



SOURCE: SHVA and Bank of Israel calculations.

Another statistic that may indicate the economy's adaptation given mobility restrictions is the increase in the rate of card-not-present transactions during the lockdown periods (Figure 7). An analysis by geographical district shows that the rate of card-not-present⁴⁷ transactions increased in all districts during the lockdowns, and in the localities belonging to districts that are routinely characterized by a high rate of remote transactions (the Tel Aviv, Jerusalem, and Central districts) these transactions increased even more (about 10 percent). There was a more moderate increase in the other districts (about 5 percent). In addition, there is an upward trend in the rate of card-not-present transactions in the Tel Aviv, Jerusalem, and Central districts.

Figure 7: Rate of Card-Not-Present Transactions by District, 2019–2020 (percent)



SOURCE: SHVA and Bank of Israel calculations.

Challenges for the future

The global payments and settlements field has been changing and developing rapidly in recent years, and is characterized by innovation that encompasses a variety of areas. The Bank of Israel is examining these changes as well as additional steps to promote the efficiency of the payment and settlement systems in Israel, including the advancement of financial infrastructure and digital means of payment in the Israeli economy and the encouragement of competition and innovation in the financial system. These steps are part of the implementation of a process that is shaping the new economy as part of the new financial world, including: an economy based on digital services; a collaborative economy; demographic changes; financial education and information; standardization; regulations and legislation in the area of payments; and information and cybersecurity.

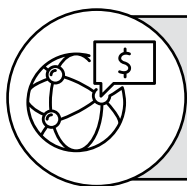
In light of the above, and in order to continue advancing the payments field and adapting it to the changes that are taking place in advanced economies around the world, the development and examination of the following issues must be sustained:



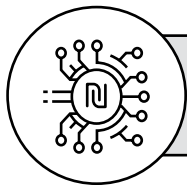
Continued actions and decision-making to ensure the stability and efficiency of the payment systems - The stability, efficiency, and integrity of payment systems are necessary to maintain public confidence in them and to enable continued execution of transactions in systems, especially in challenging periods such as the COVID-19 crisis.



Encouraging innovation through financial technology - implementing innovative technologies in existing payment systems and encouraging innovation in future payment systems.



Cross-Border Payments - promoting innovation, standardization, financial technology, and open access through the reforms made and through future projects in the payments system, which will help in the execution of global payments.



Examination of the possible issuance of a Central Bank Digital Currency (CBDC)⁴⁸ (see Box 1).

Similar to leading central banks, in recent years, the Bank of Israel set up a team to examine the issue of digital currencies issued by a central bank - CBDC. The team issued a report in November 2018⁴⁹, and has since continued monitoring developments in the field. A steering committee was established in November 2020, and published an outline document⁵⁰ in May 2021, entitled *A Bank of Israel Digital Shekel - Potential Benefits, Draft Model, and Issues to Examine*. The document details the possible motivations for a potential issuance of a digital shekel (SHAKED), and presents a draft model for a Bank of Israel digital currency. The document was published together with a call for proposals, the purpose of which was to gauge the public's attitude regarding relevant aspects of the issuance of a digital currency by the Bank of Israel in the future and with regard to the impact of such currency on the Israeli economy. As of 2021, the Bank of Israel has not yet decided whether to issue such a currency, similar to the central banks of other advanced economies.

Box 1 - Examination of the issuance of a digital Shekel

The robust payment systems, combined with the multiplicity of active means of payment in Israel, have generated a high volume of money turnover both at the local level and vis-à-vis other countries. Despite these high turnovers, the payment system in Israel continues to grow from year to year, and even during the COVID-19 crisis it did not shrink. Every year, the payment system introduces advanced digital payments at an increasingly fast pace with a forward-looking view. Assuming that the trends prevailing in recent years will continue and will be advanced by the Bank of Israel in the coming years as well, the Israeli payment and settlement system will continue to make various types of payment methods accessible, and expand them with additional characteristics to meet every need and every customer.

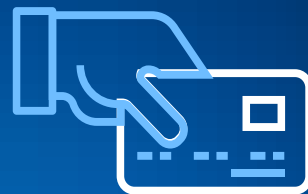
Chapter 2 | Trends in Payment Systems and Means of Payment





December 2020

Internet-based consumer survey
900 respondents
aged 18 to 74



Use of means of
payment at least
once a week



Immediate debit card

 Physical	2016 8%	2018 12%	2020 15%
 Online	2016 5%	2018 6%	2020 10%

Deferred debit card

 Physical	2016 69%	2018 68%	2020 64%
 Online	2016 38%	2018 26%	2020 26%
Smartphone payment applications	2018 5%	2020 24%	

December 2020

Internet-based consumer survey
900 respondents
aged 18 to 74

Preferred means of payment

Most
convenient



61%

Physical use of a payment card
at a merchant



58%

Cash



44%

Online payment



43%

Smartphone payment application

Least
convenient



54%

Bank check



37%

Regular check



32%

Prepaid card

December
2020

Internet-based consumer survey
900 respondents
aged 18 to 74

Use of payment applications

65%

Use at least one payment application each month

25%

Use at least two applications each month



The payment and settlement systems are an essential part of the economic and financial infrastructure of the economy, and the more efficient, reliable, and secure their functioning, the greater their contribution to the stability of the economy and the reduction of the risks involved in payment activity.

Between 2018 and 2020, the Bank of Israel took actions to encourage the use of advanced and risk-reduced digital payment methods, including actions intended to increase the values that are settled directly in the ZAHAV system.

Consumer survey on the use of various means of payment

Since 2016, a consumer survey has been conducted every two years on the use of the various means of payment, and the feedback received from the survey helps to identify the public's behavior patterns and preferences. Repetition of the previous survey questions alongside the use of comprehension questions makes it possible to establish the development of the public's perception in relation to digital means of payment and their use. The latest survey also included reference to a digital debit order, in order to clarify the public's needs and give them an optimal response during the definition of the business model of this new means of payment.

The surveys help to segment the population according to its various components—sector, religion, gender, age, etc.—and thus understand the needs, motivations, and barriers of each of the segments and of the population as a whole. The latest survey, conducted in December 2020, was an Internet survey, which sampled 900 respondents—a random national sample representing the Israeli population aged 18 to 74 connected to the Internet, while being careful to maintain a sample of the various population segments, according to the breakdown reported by the Central Bureau of Statistics (CBS). The sampling for the survey took place at the end of 2020, about 9 months after the outbreak of the COVID-19 pandemic, a period characterized by physical distancing, which certainly affected people's ability to use the various means of payment and their preferences in this sphere.

The use of means of payment - Of all the means of payment available for public use, respondents indicated that the ones they used most were cash and a physical payment card at the merchant's premises. However, compared to what was reported in previous years' surveys, the use of these two means of payment has decreased. Another interesting fact revealed by the answers regarding the use of means of payment is that the use of instant debit cards increased, both physically at the merchant's premises and on the Internet. In this survey, 15 percent of respondents indicated that they made weekly physical use of an immediate debit card (compared with only 8 percent in the 2016 survey and 12 percent in the 2018 survey), and 10 percent of respondents indicated that they make weekly online payments using immediate debit cards (compared to only 5 percent in the 2016 survey and 6 percent in the 2018 survey). As mentioned, the COVID-19 period was characterized by physical distancing, which was also reflected in the weekly use of the various means of payment: online use of payment cards increased, as seen with regard to instant debit cards, but online use of deferred payment cards also increased, from 26 percent in 2018 to 38 percent in 2020. The most significant increase was in cellular payment applications. In 2018, only 5 percent reported the weekly use of such applications, while in 2020, the rate reached 24 percent.



Preferences by type of payment method, advantages and disadvantages -

When asked which means of payment is not convenient to use, 54 percent of the respondents said a bank check, 37 percent said a regular check, and 32 percent said a prepaid card. The main reasons given for the lack of convenience are awkwardness of use, slowness in making the payment, the fact that not all stores accept it, and the requirement to add a commission when using it. On the other hand, regarding which payment method is convenient to use, the physical use of a physical payment card at the merchant's premises stood out. Sixty-one percent of the respondents indicated that it was easy to use, followed by cash at 58 percent, online use of a payment card at 44 percent, and cellular payment apps at 43 percent of respondents.



The use of payment apps - Sixty-five percent of respondents indicated that they use at least one payment transfer app each month, and 25 percent of respondents indicated that they use at least two apps monthly.



The ZAHAV system

Due to the economic importance of the ZAHAV system, its stability is carefully examined using various indicators—including excess liquidity in the system, its availability, and the concentration of its participants.

Excess liquidity in the ZAHAV system is measured as the difference between the daily average in the settlement accounts and total debits in the system. The daily average excess liquidity in the system was approximately NIS 134,536 million in 2019 and NIS 177,129 million in 2020. In December 2020, the average daily excess liquidity was NIS 198,670 million—approximately 47.5 percent higher than in December 2019. Most of the change is due to an increase of approximately 52 percent in the margin account and an increase of approximately 22 percent in the banks' current accounts. The level of concentration in the ZAHAV system⁵¹, in terms of the value of transactions, was about 83.88 percent in 2019 and about 84.45 percent in 2020. The availability of the ZAHAV system⁵² has been maintained at a high level since its inception in 2007—indicating stability and the ability to sustain business continuity. In 2019 the system's availability⁵³ was 99.99 percent, and in 2020 - 99.978 percent—similar to the world's standard rates in RTGS systems.

In 2020, approximately 1,358,000 transactions, totaling about NIS 240 billion were settled through the ZAHAV system, compared to about 1,344,000 transactions totaling about NIS 137.477 billion in 2019—an increase of 1 percent in the number of transactions and of 75 percent in their amount.

Table 4: Activity in the ZAHAV system by component, 2008 to 2020

	Interbank*			Clearing houses	Bank of Israel	Total
	Excluding CLS	CLS Only	Total			
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
2016	3,615	1,006	4,621	2,835	108,919	116,375
2017	3,597	955	4,552	2,935	140,460	147,947
2018	4,300	1,102	5,402	2,818	145,199	153,419
2019	4,084	1,051	5,135	2,638	129,698	137,471
2020	5,071	1,228	6,299	4,828	228,875	240,002
Annual change (percent)	24.17	16.86	22.68	83.02	76.47	74.58
Transactions (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
2016	826,565	13,070	839,635	8,516	19,359	867,510
2017	965,742	12,211	977,953	8,449	19,528	1,005,930
2018	1,092,482	13,324	1,105,806	8,203	19,389	1,133,398
2019	1,304,276	13,166	1,317,442	8,589	18,133	1,344,164
2020	1,315,946	13,516	1,329,462	10,939	17,895	1,358,296
Annual change (percent)	0.89	2.66	0.91	27.36	-1.31	1.05

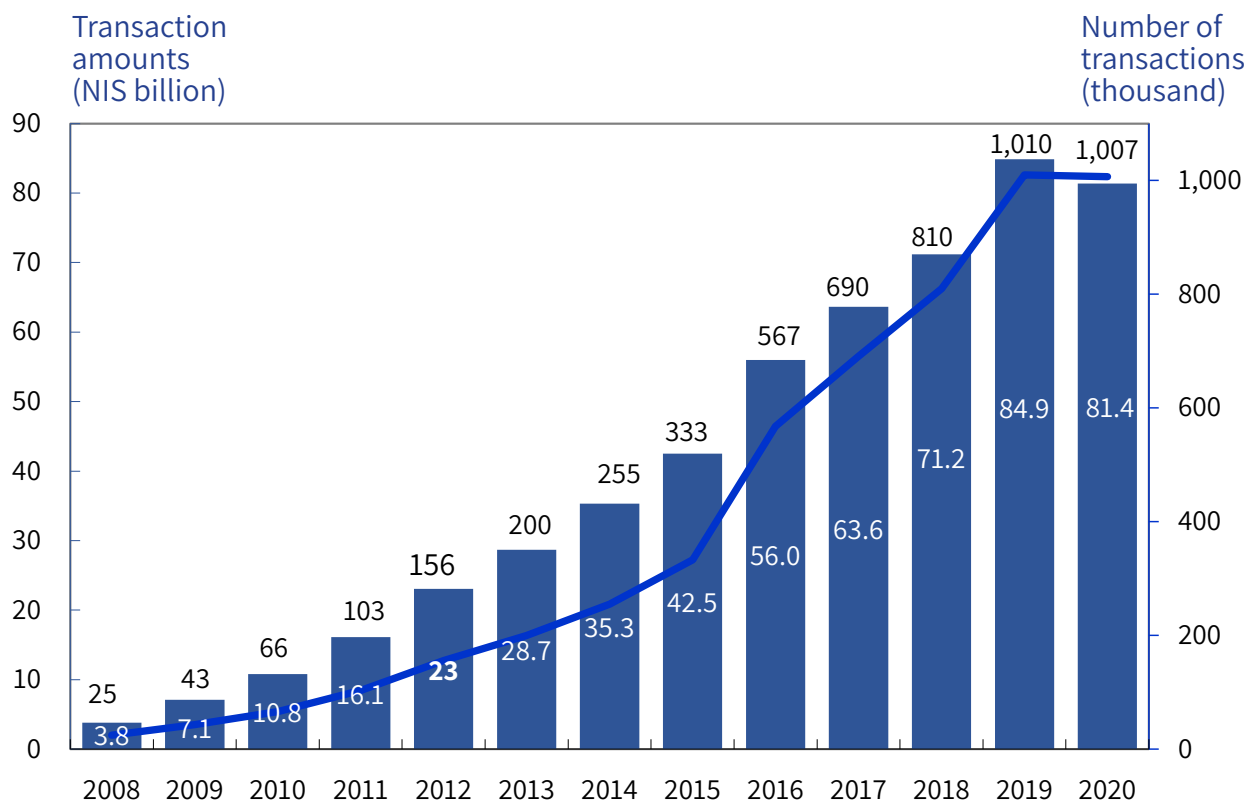
* The shekel became an active currency in CLS on May 26, 2008.

SOURCE: Bank of Israel.

Table 4 shows that the number of interbank transactions in 2020 increased by about 1 percent compared to 2019, and the value increased by about 23 percent.

Customer activity in the ZAHAV system has increased significantly in the last 5 years, partly due to the January 2015 amendment to the Banking (Service to the Customer) (Fees and Commissions) Rules 5768—2008, which stipulates that the amount of fees and commission that the bank may charge for transfers of up to NIS 1 million through the ZAHAV system will not exceed the price of a single teller-executed transaction fee (about NIS 6.00).⁵⁴ The amendment took effect on February 1, 2015. It is evident that the reduction of the fee for this service made the ZAHAV system accessible to the general public for transactions where immediacy and finality are important, even when it comes to small amounts. Customer activity remained stable (with a slight decline) in 2020 compared with 2019.

Figure 8: Customer Activity in the ZAHAV System - Transactions up to NIS 1 Million, 2008–2020



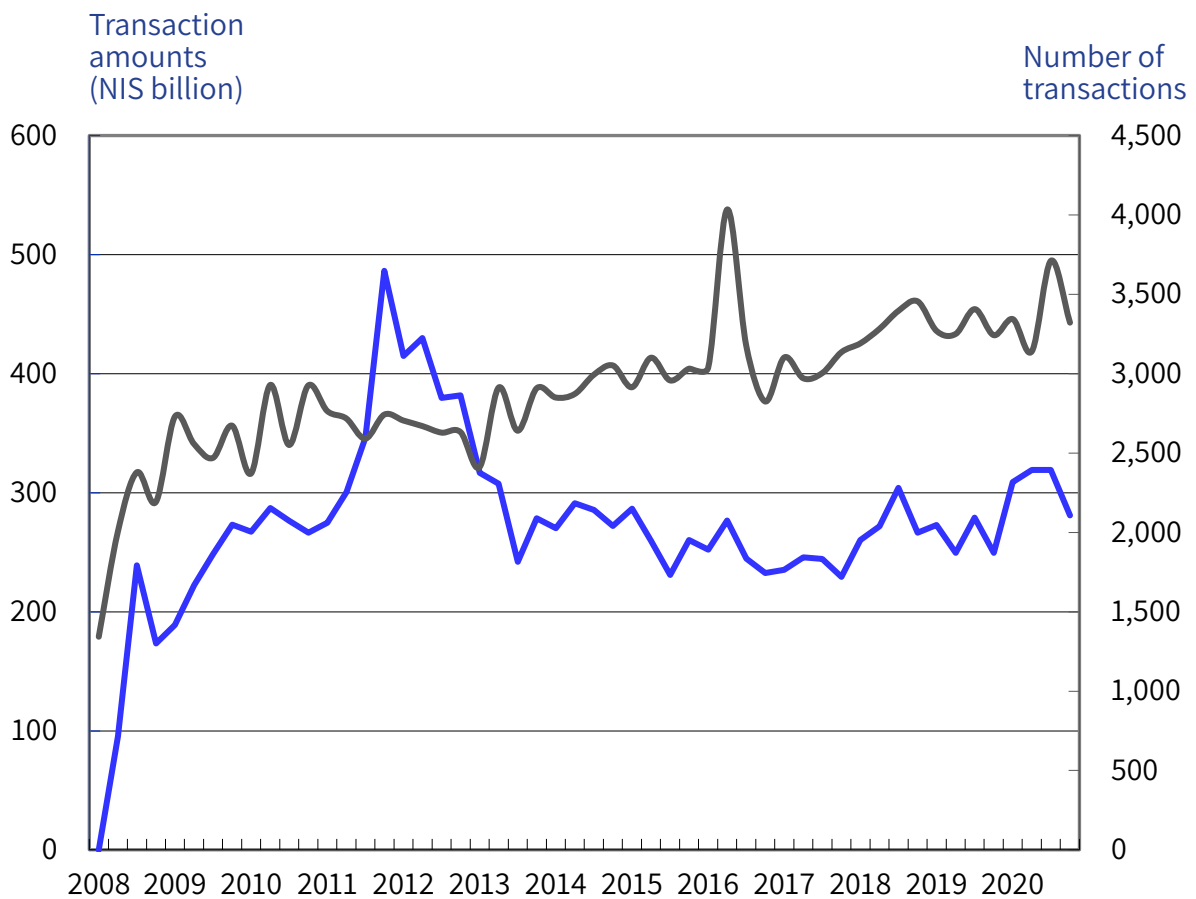
SOURCE: Bank of Israel.

Total financial activity of the Paper-Based (Checks) Clearinghouse in the ZAHAV system declined by about 14.3 percent between 2019 and 2020. Total financial activity of MASAV in the ZAHAV system increased by about 12.6 percent. These activities are described in detail in the subsection relating to activity during the COVID-19 Crisis.

CLS (Continuous Linked Settlement)

CLS operates the largest multicurrency monetary settlement system, in order to reduce the settlement risk in foreign exchange transactions. The system provides settlement services in 19 currencies⁵⁵, including the shekel, and carries out most shekel conversion activity against foreign currencies in Israel. In 2020, shekel conversion transactions (transactions in which the shekel is a party) through CLS amounted to about NIS 1,228 billion—an increase of 16.86 percent compared to the previous year. The number of transactions cleared through CLS increased by 2.66 percent during the year (Figure 9).

Figure 9: CLS Shekel Activity in the ZAHAV System*, 2008–2020



* Quarterly data.

SOURCE: Bank of Israel.

The Paper-Based (Checks) Clearinghouse

Checks and collection vouchers are settled through the Paper-Based (Checks) Clearinghouse.⁵⁶ The data on these means of payment show that in 2020, total interbank activity in this clearinghouse was about NIS 721 billion, compared to NIS 839 billion in 2019, a decrease of about 14 percent. The number of transactions declined from about 90,000 to about 71,000—a decrease of about 21 percent.

Table 5: Paper-Based Clearinghouse by Component, 2007 to 2020 (NIS billion)

	Manual drafts			Checks			Total in the clearinghouse
	Debits	Credits	Total	Presentations*	Returns	Total	
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
2016	57	0.4	57	858	30	888	945
2017	1	0.2	1	854	31	885	886
2018	0	0	0	827	33	860	860
2019	0	0	0	808	32	839	839
2020	0	0	0	692	30	721	721
Annual change (percent)				-14.36	-6.10	-14.05	-14.05

SOURCE: Paper-Based (Checks) Clearinghouse.

Transactions (thousand)							
2007				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
2016	201	14	215	106,828	2,562	109,390	109,605
2017	72	6	79	101,605	2,583	104,188	104,267
2018	0	0	0	95,216	2,564	97,780	97,780
2019	0	0	0	87,669	2,590	90,259	90,259
2020	0	0	0	68,623	2,426	71,049	71,049
Annual change (percent)				-21.73	-6.34	-21.28	-21.28

SOURCE: Paper-Based (Checks) Clearinghouse.

Manual settlement switched to digital settlement using the ZAHAV system in 2017.⁵⁷ Paper-Based (Checks) Clearinghouse activity has been declining in quantity and in monetary terms in recent years, with an increase in the number of checks presented via cell phones. For further details, see Chapter 3 below.

MASAV

Digital credits and debits⁵⁸ are executed in MASAV. Table 6 shows that the credit component amounts to approximately 82 percent of total payments that are settled in MASAV. Both the credit component and the debit component of MASAV activity increased by 9.8 percent in the reviewed year. (In the previous year, credit amounts increased by 8 percent, and debit amounts increased by 11 percent.)

As of the end of 2021, there are 31,941 participants—government ministries, public institutions, and other settlement organizations such as credit card companies—operating in the MASAV system. All MASAV participants are direct participants, i.e., they represent themselves.⁵⁹

Table 6: MASAV by component, 2007 to 2020 (NIS billion)

	Credits	Debits	Returned Credits*	Returned Debits	Total
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
2016	2,345	517	1.5	5.5	2,869
2017	2,573	568	1.6	6.1	3,149
2018	2,712	658	1.9	7.0	3,380
2019	2,969	690	2.4	7.2	3,669
2020	3,179	703.5	2.8	8.7	3,894
Annual change (percent)	7.06	2.01	17.86	21.94	6.15

SOURCE: MASAV.

Table 6: MASAV by component, 2007 to 2020

	Transactions (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
2016	150,822	200,092	217	4,043	355,173
2017	159,527	207,247	253	4,364	371,391
2018	174,125	218,504	299	4,739	397,666
2019	194,576	230,169	362	4,997	430,104
2020	239,037	232,573	386	4,671	476,667
Annual change (percent)	22.85	1.04	6.79	-6.53	10.83

SOURCE: MASAV.

The Stock Exchange Clearinghouses

The Stock Exchange Clearinghouses—the Securities Clearinghouse and the MAOF Clearinghouse—settle the results of trading on the Stock Exchange. Securities are settled at the Stock Exchange Clearinghouses immediately after the funds have been cleared between the Stock Exchange members in the ZAHAV system, on a delivery-versus-payment (DVP) basis.

The global COVID-19 crisis led to volatility in trading. While there was a decline in volatility in 2019, there was a significant increase in 2020, with high trading volumes—due to actions taken in the struggle against the pandemic and attempts to restore the economy. However, the increased activity added to the volatility.

Table 7 below shows that the annual financial turnover of securities traded on the Stock Exchange in 2020 totaled approximately NIS 1,623 billion; compared with approximately NIS 1,266 billion in the previous year—an increase of approximately 28.3 percent.

Table 7: Securities Trading Cycles, 2006 to 2020 (NIS billion)

	Equities and convertibles	Bonds			Makam	Total
		Government	Other	Total		
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
2016	311	670	252	922	85	1,317
2017	344	641	250	892	52	1,288
2018	371	641	269	910	103	1,387
2019	315	636	215	851	100	1,266
2020	460	757	263	1,020	143	1,623
Annual change (percent)	46.12	19.10	22.48	19.95	42.96	28.28

SOURCE: Tel Aviv Stock Exchange.

Chapter 3

Means of Payment Used by the Public



Monetary change in the use of means of payment in the past 10 years



94%

Direct credit

Transfer from one account to another



122%

Direct debit

Direct debit authorization



11%

Zahav

Real-time gross settlements



86%

Payment cards

Credit cards



-13%

Checks



22%

Cash withdrawals

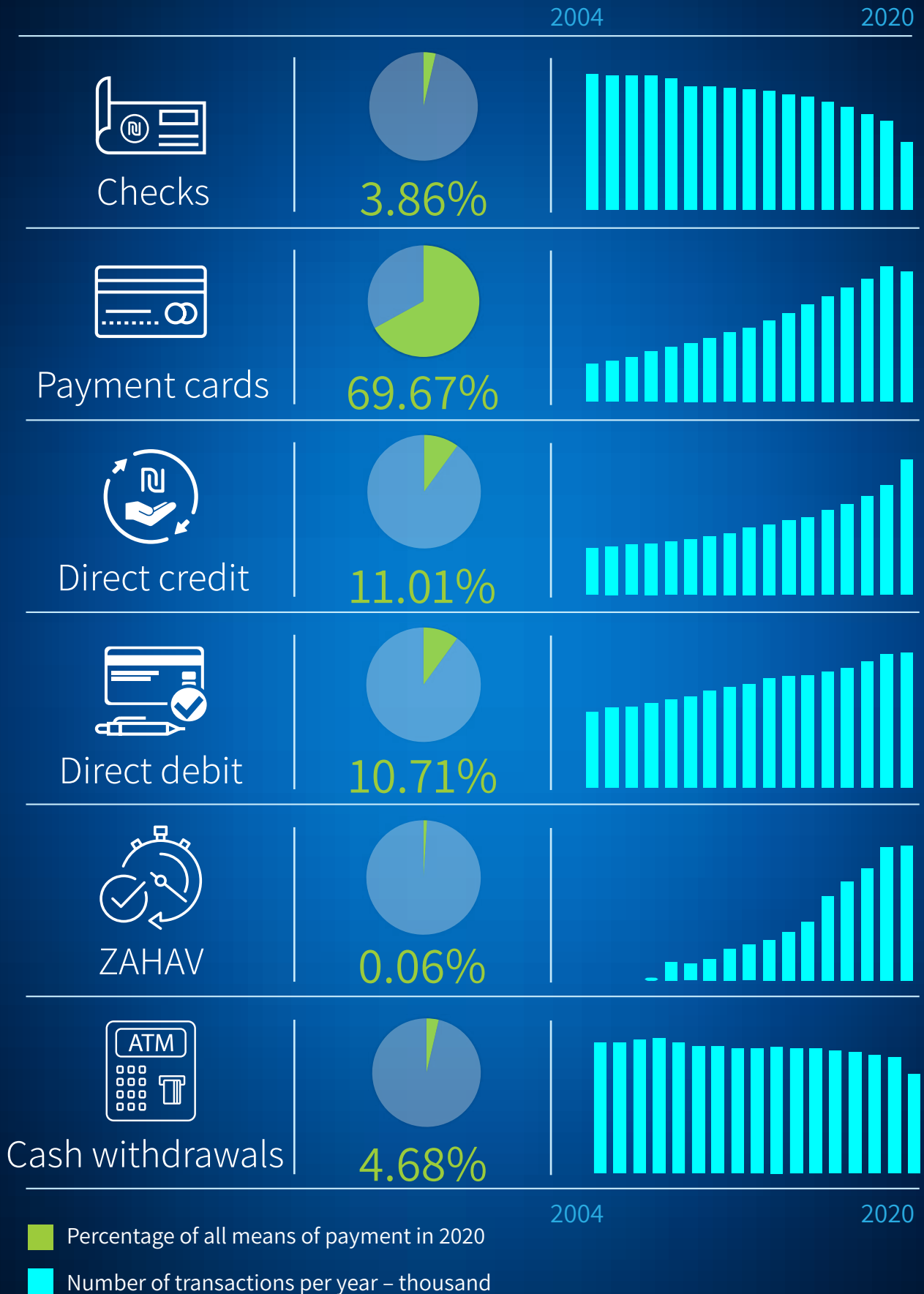
ATMs and banks



2004-2020

Means of payment usage volume Transactions

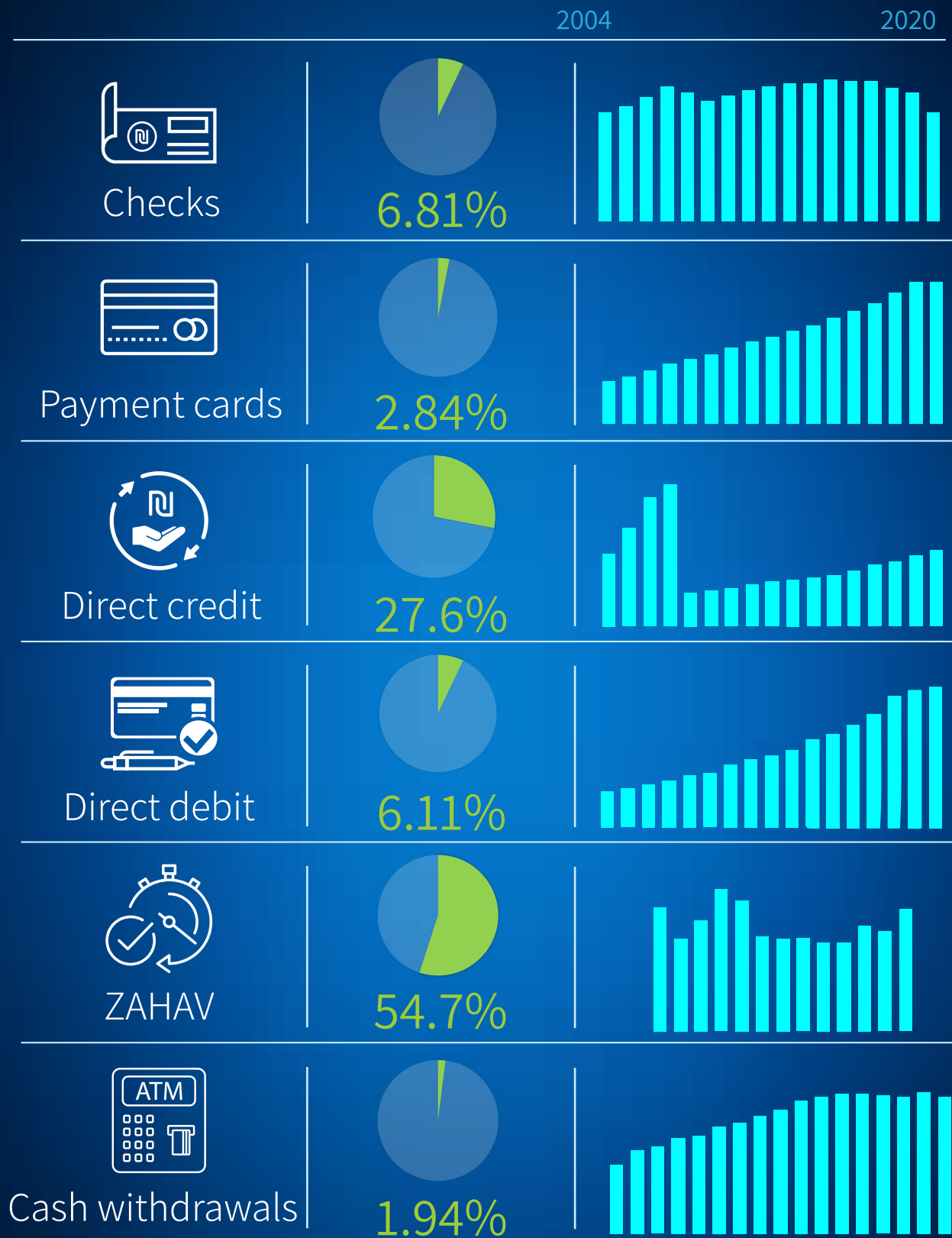
Figure 10



SOURCE: Bank of Israel.

2004-2020

Means of payment usage volume Amounts



■ Percentage of all means of payment in 2020
■ Number of transactions per year – thousand

2004

2020

The main means of payment available to the general public in Israel include cash, paper-based payments—checks and vouchers—direct debit in the MASAV system, direct credit in the ZAHAV system and in the MASAV system, payment cards, and payment-card-based applications.

When parties to a transaction choose a means of payment, they take into account mainly the following features: convenience - the extent to which it is convenient for the debited party and the beneficiary party to use that means of payment ; availability - under what conditions and when will the receipt / payment be available; security - the extent to which it is possible to verify the data of the debited or beneficiary party and ensure receipt of the payment, maintain confidentiality, trust the means of payment in terms of credibility and reliability, and prove that the payment has actually been made; and cost - what fees and commissions are charged to the beneficiary and/or the debited party, and what are the liquidity costs.

Figure 10 shows the development of the use of means of payment common in Israel in recent years according to the amounts paid through them. The figure reveals that the value of direct credits has declined since the ZAHAV system came into use (at the end of 2007), and that the use of payment cards gradually increased between 2004 and 2020 (an increase of about 223 percent, from about NIS 100 billion per year to about NIS 324 billion, and an increase of about 241 percent from about 442 million transactions per year to about 1,510 million transactions per year). The use of checks is also common among the Israeli public, with check transactions totaling about NIS 780 billion per year. (For more details see Section 1.2).

Paper-based means of payment

The paper-based means of payment are cash, checks, and vouchers.

Cash withdrawals

1.9% of total value

4.7% of total transactions

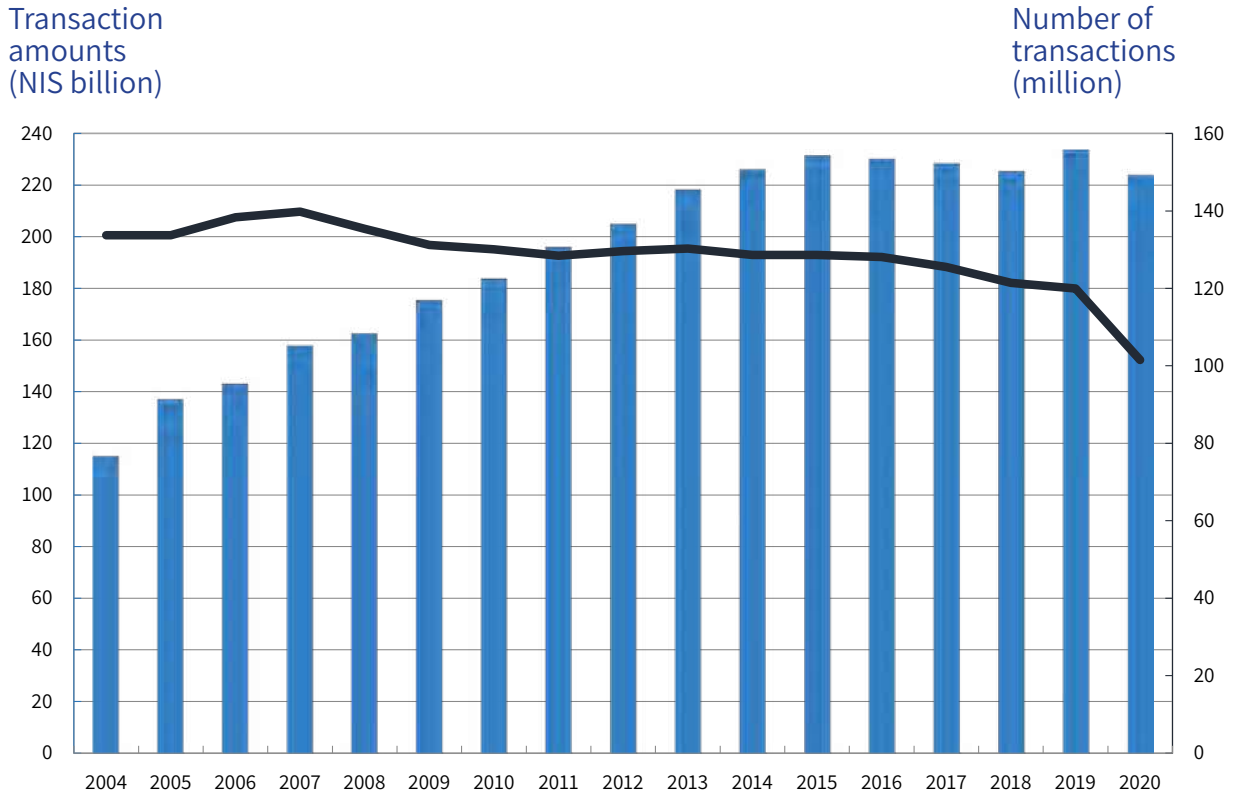
Banknotes and coins are the most liquid means of payment. The Bank of Israel issues banknotes in denominations of NIS 20, 50, 100, and 200, and coins in denominations of 10 agorot and NIS 0.5, 1, 2, 5, and 10.

The total number of banknotes and coins in circulation increased in 2020, in view of the expansion of economic activity and the low interest rates prevailing in recent years. In 2020, cash turnover totaled NIS 105.8 billion, compared with NIS 87.2 billion in 2019 (a 21 percent increase between 2019 and 2020, compared to a 2 percent increase between 2018 and 2019).⁶⁰ The significant increase in cash turnover during the COVID-19 crisis was the first such increase in such a short period since 2009, when it increased by 20.75 percent in view of the Global Financial Crisis and the process of lowering the Bank of Israel's interest rate at that time. This growth trend is not unique to Israel. In other countries around the world, the demand for cash rose sharply during the COVID-19 crisis. This is probably because holding cash gives a sense of security, and because cash helps control expenditures.

There were approximately 102 million cash withdrawals from ATMs and bank tellers in 2020, a decline of approximately 15.4 percent compared to 2019 (when there were approximately 120 million withdrawals). The annual amount of withdrawals declined by about 4.2 percent (NIS 9.7 billion) between 2019 and 2020. Compared to 2018 the decline was NIS 225 billion, and compared to 2017 the decline was NIS 229 billion.

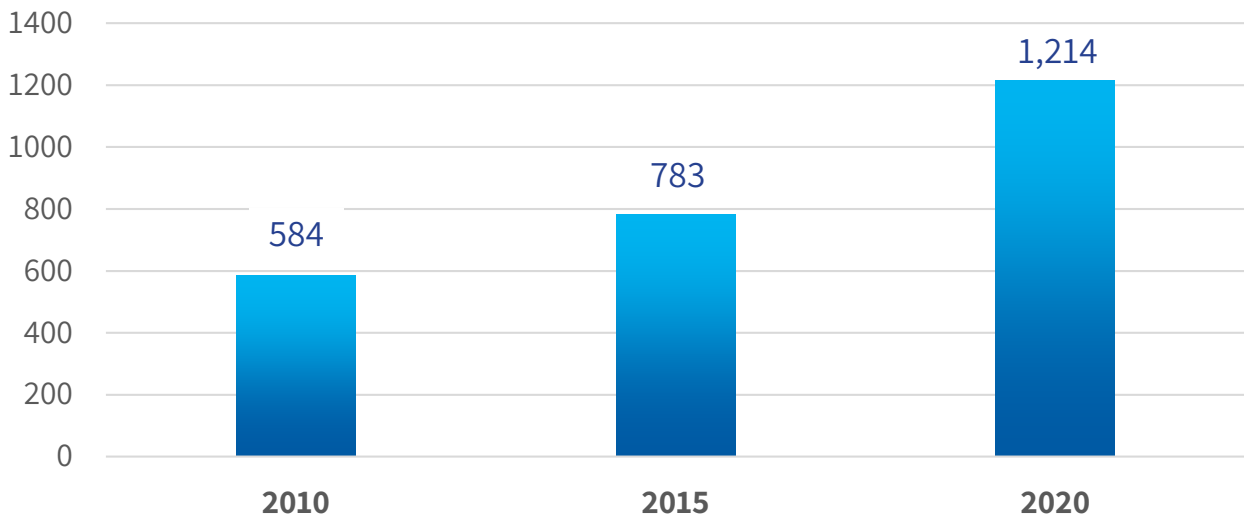
The upward trend in the average withdrawal amount from ATMs continued. Between 2019 and 2020, it increased by 14.3 percent to NIS 1,200. (The growth rate since 2010 is about 107.7 percent.)

Figure 11: Cash Withdrawals from ATMs and from Bank Tellers: Number and Cumulative Amount, 2004–2020



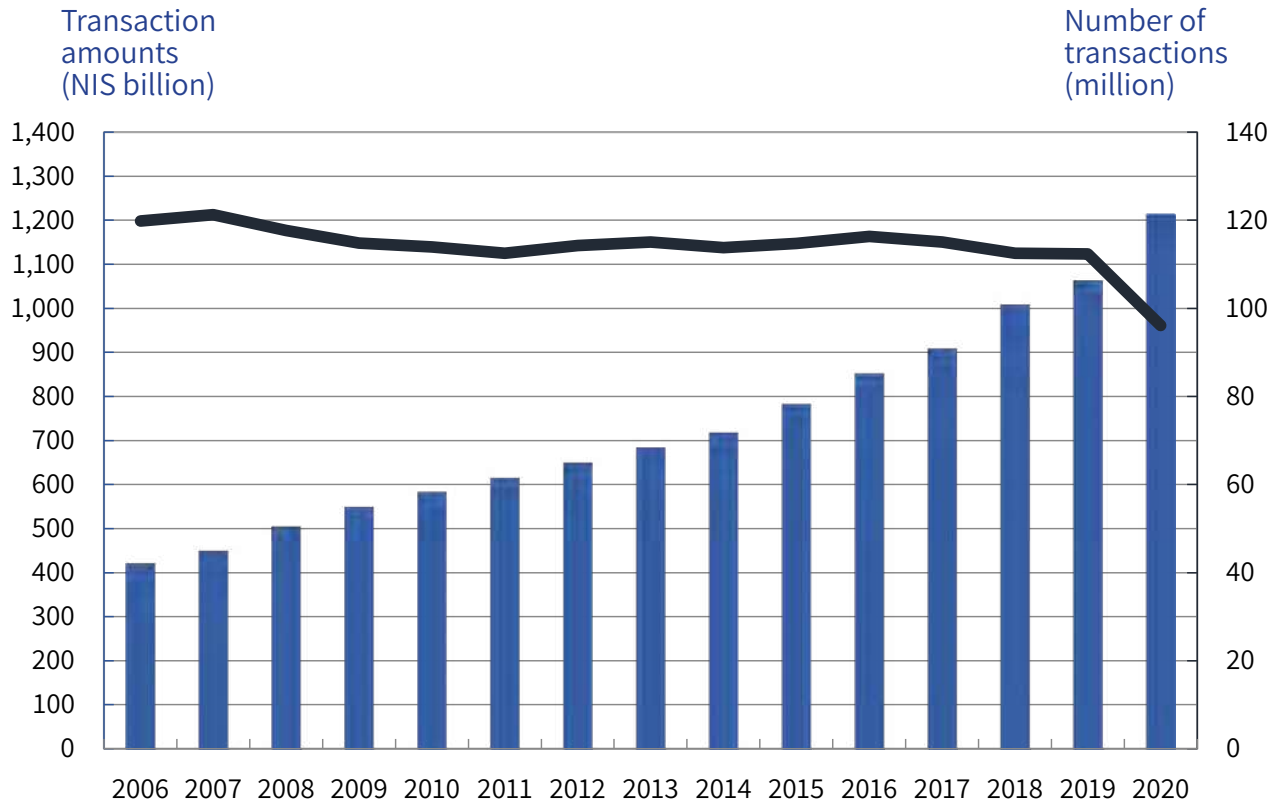
SOURCE: Bank of Israel.

Average withdrawal amount, NIS



SOURCE: Bank of Israel.

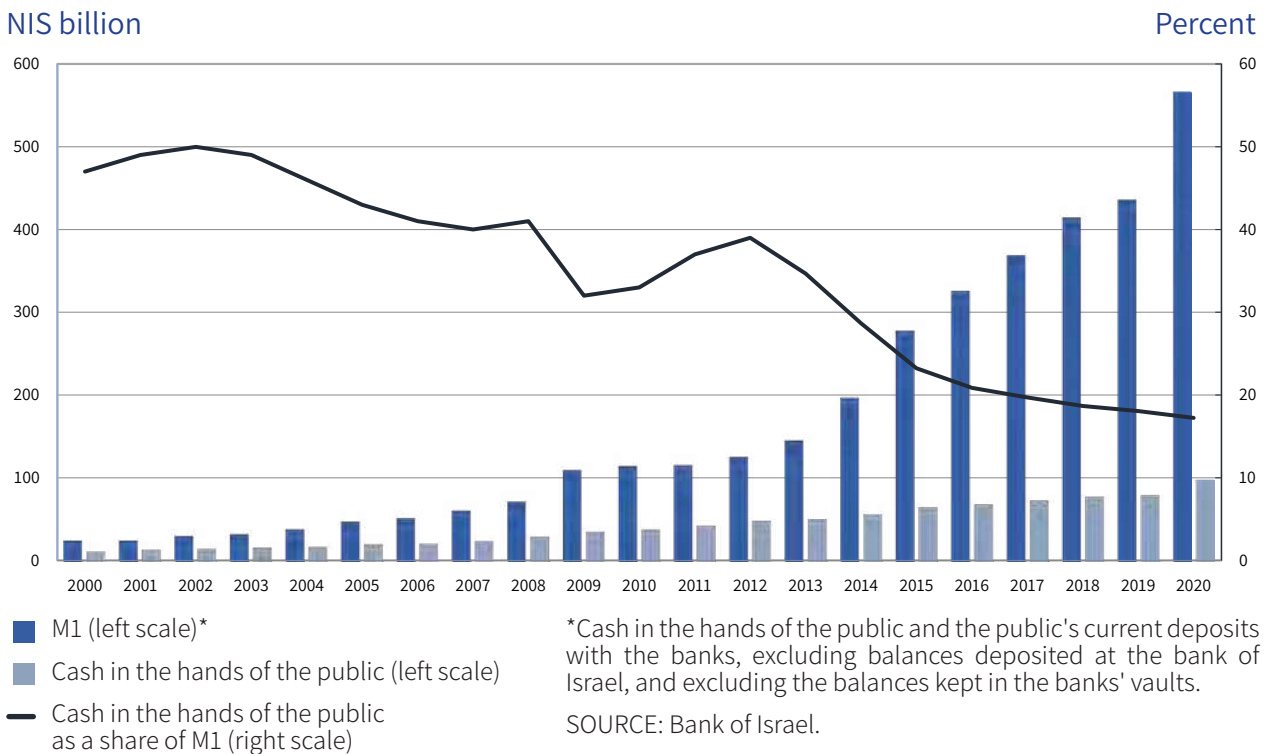
Figure 12: Cash withdrawals from ATMs: number and average amount, 2004–2020



SOURCE: Bank of Israel.

Although the amount of cash held by the public is rising steadily (from NIS 25 billion in 2007 to NIS 98 billion in 2020), cash held by the public as a share of all money is declining, mainly because current accounts have increased significantly, in view of the low interest rates.

Figure 13: Cash Trends, 2004–2020



SOURCE: Bank of Israel.

CHECKS

6.8% Of total value

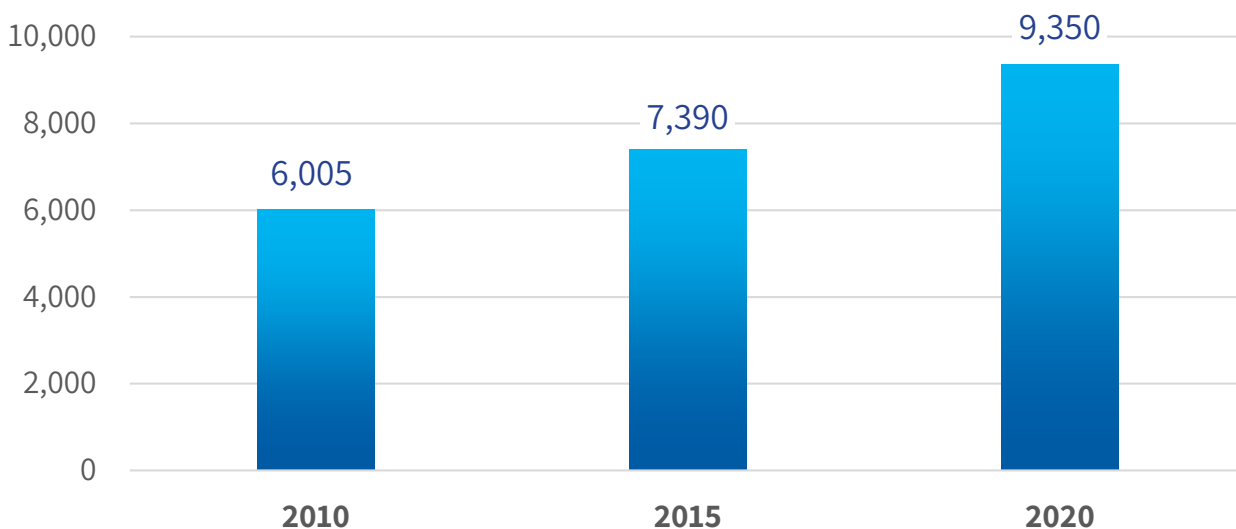
3.9% Of total transactions

Checks are well established and common in Israel, and have many and varied uses, including payments to private beneficiaries (service providers, residential rent, gifts, etc.), payments to business beneficiaries, and payments to public entities (the Tax Authority, educational institutions, and provident and pensions funds).

According to the data on all checks (intrabank and interbank⁶¹) in Israel, the use of this means of payment declined in numbers by about 22.8 percent between 2019 and 2020, to about 84 million checks, and the cumulative value of checks declined by 15.6 percent. Since 2007, the number of checks has gradually decreased, and by 2020 the decrease amounted to 49 percent. There are two main reasons for the reduction in the use of checks. First, the public has expanded its use of digital means of payment, mainly payment cards and digital transfers. Second, some businesses do not accept checks because of the risks and costs involved in accepting them.

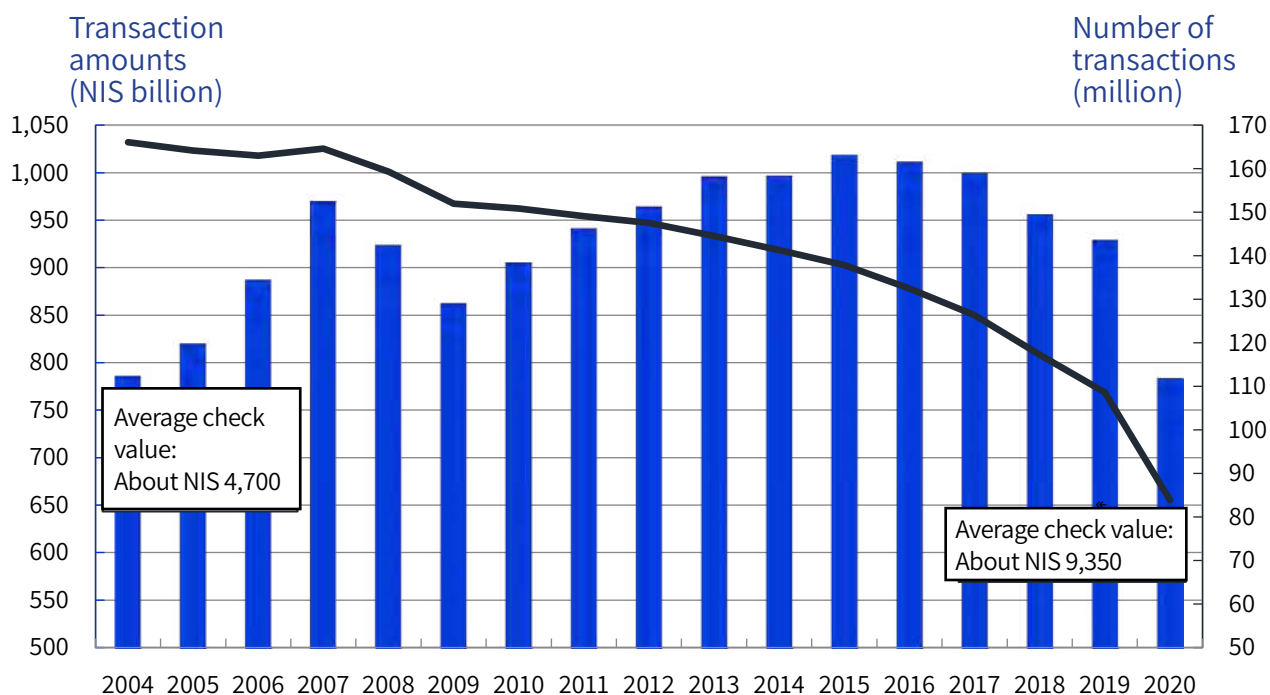
The average amount of a check increased from NIS 5,800 in 2008 to NIS 9,350 in 2020, an increase of about 61 percent. The business sector in Israel makes extensive use of checks as a means of payment in large amounts, including transactions outside the bank's credit facility and for tax payments.

Average check amount, NIS



SOURCE: Bank of Israel.

Figure 14: Interbank and Intrabank Checks: Number and Cumulative Amount, 2004–2020



SOURCE: Bank of Israel.

The number of returned (bounced) bank and nonbank checks, declined by about 22 percent in 2020 compared to 2019 (declines of 30.4 percent for liquidity reasons and of 17.3 percent for technical reasons), and their value declined by 8.2 percent (increase of 3 percent for liquidity reasons and a decline of 10.2 percent for technical reasons). The rate of returned checks in 2020 was 2.7 percent of their number (2.3 percent in 2016) and about 3.7 percent of their value (3.4 percent in 2016).⁶² The average value of a returned check increased from about NIS 10,700 in 2019 to about NIS 12,700 in 2020, an increase of 18 percent (increases of 48 percent in the average value of a check returned for a liquidity reasons, and of 8.6 percent in the average value of check returned for technical reasons).

Most of the increase in returned checks was due to technical reasons (missing signature, incorrect date, mismatch between words and figures, etc.). Checks returned for liquidity reasons accounted for about 1.6 percent of all checks in 2019 and 1.1 percent of all checks in 2020, while checks returned for technical reasons accounted for about 2.6 percent of all checks in 2019 and 2.1 percent in 2020. The value of checks returned for liquidity reasons as a share of the value of all checks (intrabank and interbank) was stable at about 1 percent in 2019 and 2020. The value of checks returned for technical reasons was about 3.8 percent of the value of all checks in 2019 and about 3.4 percent in 2020.

When presenting a check at a commercial bank until the end of the business day (18:30) the presenter's account is credited on the same day (day T). This is a conditional credit, since according to the Clearinghouse Rules the debited bank may return the check the day after it is presented. From the customer's point of view, the credit will be considered temporary, and it will become final three business days after the settlement date, unless the bank cancels the temporary credit during that time if the debited bank refuses to honor the check.⁶³

In Israel, a check can be endorsed.⁶⁴ In October 2011, an amendment of the Banking (Service to the Customer) Law⁶⁵ came into force, stipulating that banks must by default issue checks whose

endorsement has been restricted ("to the payee only"), unless the customer requests otherwise. Underlying the amendment is the assumption that this will reduce the number of endorsed checks in the system, although it will not completely prevent endorsements.

In Israel, postdated checks are used relatively widely, both in the business sector and among households. The banks' customers use them to provide collateral against the credit they need for their business activities, pay periodic taxes, and spread payments (make installments) to suppliers. The use of postdated checks motivated beneficiaries to turn to check discounting, a service that allows for immediate monetary consideration of a check with a future due date. This is actually a financing method where the beneficiaries receive the monetary value of the check in exchange for a discount fee. In Israel, providers of currency change services deal with check discounting, and are subject to financial service provider regulations through the Capital Market, Insurance and Savings Authority in the Ministry of Finance. The Capital Market, Insurance and Savings Authority's "Financial Services Providers" databaselists 773 corporations and private entities whose licenses are active.⁶⁶

In November 2017, the implementation of the Digital Settlement Law was completed, allowing the conversion of a paper-based check into a digital record, which will serve as legal evidence, which can be recovered at any time, if necessary, without the physical paper check being kept. The clearing and settlement process changed following the implementation of the law, and the physical paper checks are now truncated and photocopied at the bank where they are presented for payment. The photocopies of the checks are sent to the debited bank without the need to continue keeping the physical paper checks. The law was implemented in two main stages. In the first stage, in November 2016, interbank settlement of checks presented via cell phones was made possible by most banks.⁶⁷ In November 2017, the implementation of the law was completed, and as of that date, interbank settlement of checks presented via cell phones is available at all banks. This process allows bank customers to present checks without physically going to bank branches, and increases the use of advanced digital services through the banking applications offered to the customers.⁶⁸

Digital means of payment

Digital direct payments

Digital direct payments—direct debits and credits—are made by automatic means, without manual intervention. There are two systems for making such payments in Israel—ZAHAV and MASAV. The ZAHAV system handles only credits: An order initiator can credit the counterparty but cannot debit that party. MASAV, on the other hand, also handles debits.

Digital Direct Credits – the ZAHAV System

54.7% Of total value

0.06% Of total transactions

The ZAHAV system enables individuals and business entities to make money transfers immediately, definitively, and securely. The ZAHAV system serves as the final settler of all payment and settlement systems in Israel. The ZAHAV system currently has 20 settlement participants⁶⁹—the commercial banks, CLS, the Bank of Israel, and the Postal Bank—and four clearinghouses: the MAOF (derivatives) Clearinghouse, the Stock Exchange Clearinghouse, MASAV, and the Paper-Based (Checks) Clearinghouse.

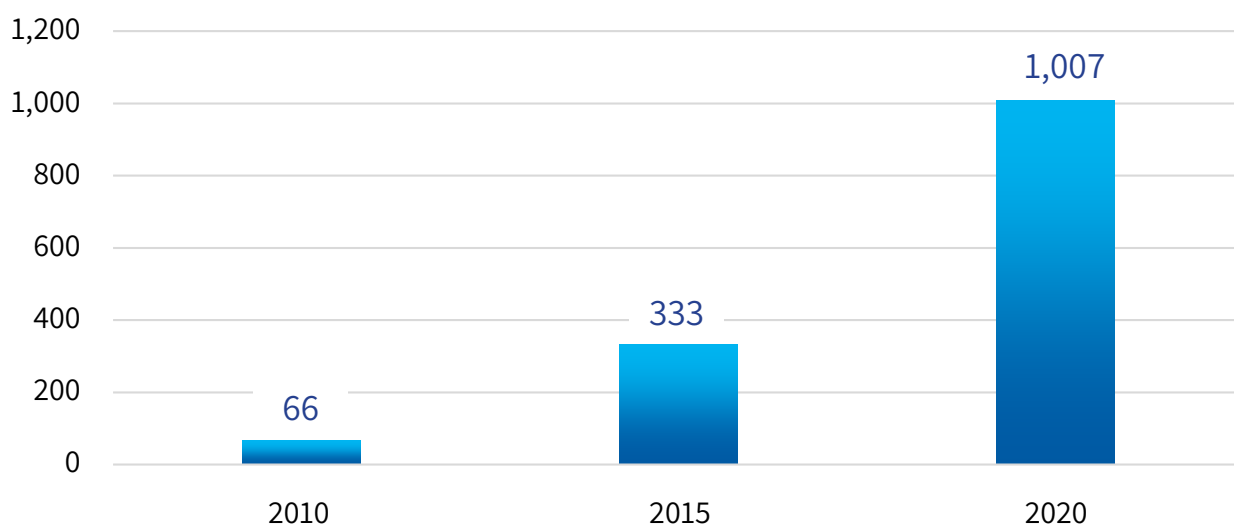
ZAHAV clears and settles orders in real time and definitively, i.e., without delay between the execution of the payment order and its approval. This protects the payment recipient from a number of risks. ZAHAV users know immediately upon making the transfer that the payment is final and cannot be cancelled, unlike other means of payment.

If a private customer wants to pay through the ZAHAV system, he or she has several options, depending on the bank where their account is managed: contacting a teller at the branch where he or she holds an account in shekels; forwarding a written request; transferring through the bank's website⁷⁰; and contacting a call center.

In order to transfer payment in the ZAHAV system, the beneficiary's ZAHAV (IBAN) number⁷¹ and name in English must be provided in advance. The IBAN serves as an international standard for identifying bank accounts, and is a unique identifier for the customer's account.⁷² Bank customers can obtain their IBAN number in a variety of simple ways, and each commercial bank provides the number by at least one of these means: a branch clerk, the website, the telephone service, ATM, and the appendix accompanying a checkbook (since 2012). The number can also be obtained using the IBAN simulator on the Bank of Israel's website.⁷³

As of the end of 2020, an average of 4,680 bilateral and multilateral transactions per day are settled in the ZAHAV system, with an average daily cumulative amount of approximately NIS 1,028 billion, this is compared to an average of 1,800 transactions per day in 2014, with an average daily cumulative amount of NIS 289 billion. (This was before the amendment to the banking rules took effect in January 2015, which contributed to an increase in customer transactions in the ZAHAV system, and stipulated that the amount of commission that the bank may charge private individuals and small businesses for transfers of up to NIS 1 million through the ZAHAV system shall not exceed the amount of one teller-executed transaction fee.) Most of the increase in the number of transactions is attributed to customer transactions: an increase of 198 percent and an addition of about 779 thousand transactions per year, out of a total quantitative increase of 844 thousand transactions per year between 2014 and 2020. The monetary increase in customer transactions between 2014 and 2020 was NIS 603 billion (34.5 percent) out of a total increase of NIS 160.67 trillion between those two years.

Number of Customer Transactions in the ZAHAV system (thousand)



SOURCE: ZAHAV system, Bank of Israel.

Digital direct credits and debits - MASAV

Direct credits	27.6% of total value	11.0% of total transactions
Direct debits	6.1% of total value	10.7% of total transactions

Direct Credits

Direct credits are made through the ZAHAV and MASAV systems, and are initiated by the debited party, who orders the bank to debit his or her account and credit the beneficiary. If there is a sufficient balance in the account, the bank transfers the payment order to the clearinghouse via ZAHAV or MASAV, which then settles the payment. If the payment is settled in ZAHAV, the credit is immediate and final, meaning that it cannot be returned. If it is cleared in MASAV, the credited party can return the payment within three business days from the date of execution. Most direct credits, such as salaries and pension payments, are initiated digitally, which significantly reduces the handling cost of each payment order—to the customer, to the bank, and to the clearinghouse.

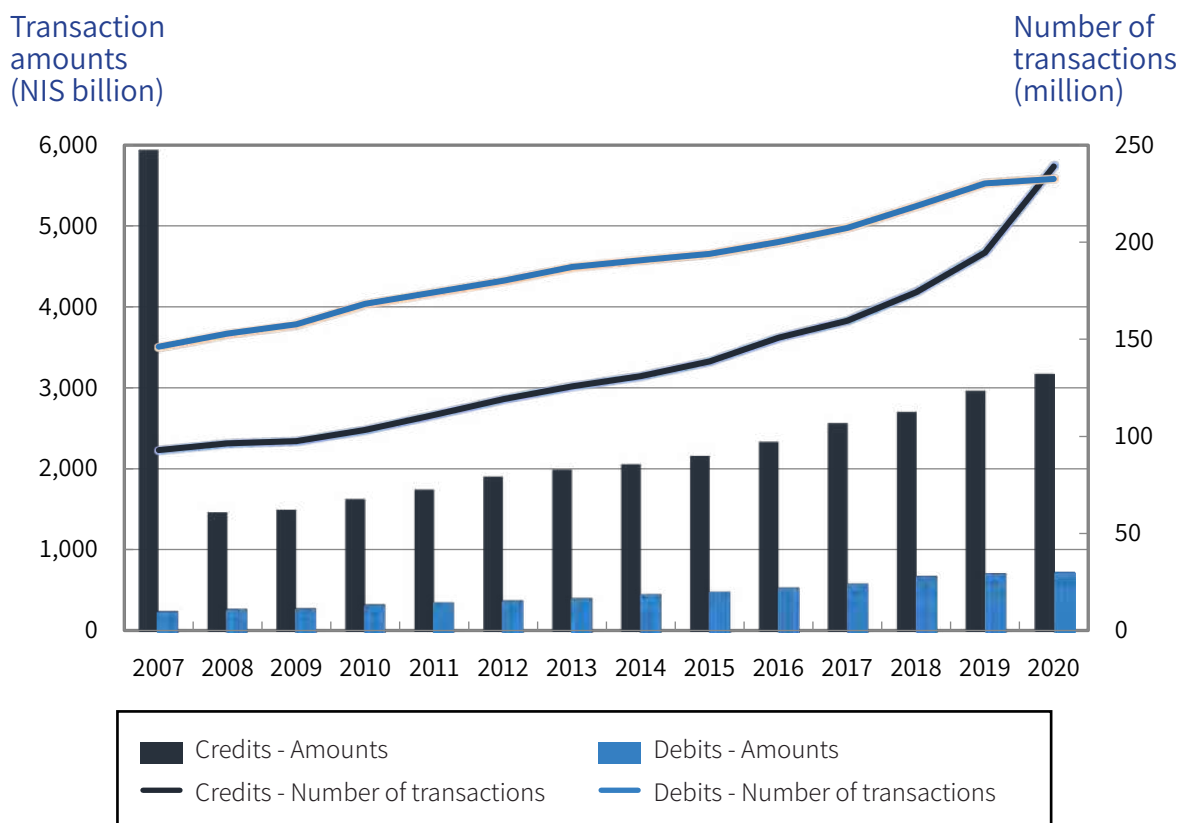
In recent years, there has been a continuous increase in both the number of direct credits and their amount. Amounts increased by 115 percent between 2008 and 2020, and by 7.1 percent between 2019 and 2020 (from NIS 2.969 trillion in 2019 to 3.179 trillion in 2020). The number of transactions increased by approximately 148 percent between 2008 and 2020, and by 22.8 percent between 2019 and 2020 (from approximately 195 million transactions to approximately 239 million transactions). The amounts of credits declined significantly between 2007 and 2008, because at the end of 2007 the ZAHAV system came into use (as reflected in Figure 15).

Direct Debits

Direct debits in Israel are made only through MASAV, and are initiated by the beneficiary, through the bank that manages his or her account. The beneficiary's bank collects the funds from the bank that manages the account of the debited party, subject to legal terms to which the debited party has agreed. Direct debits are based on the undertaking that the debited party will be able to cancel incorrect or illegal debits within three business days from the date of their execution. Most direct debits in Israel are direct debit authorizations (standing orders regarding payments to service or utility providers, such as electricity, water, telephone, etc.). Payments are made automatically every month, and in current values.

In recent years, both the number of direct debits and their amount has increased: the amounts increased by about 170 percent between 2008 and 2020, following the launch of the ZAHAV system, and by 2 percent between 2019 and 2020 (from NIS 690 billion in 2019 to NIS 704 billion in 2020). The number of debits increased by about 85 percent between 2008 and 2020, and by about 1 percent between 2019 and 2020 (from about 230 million transactions to about 233 million transactions).

Figure 15: Credits and Debits in MASAV: Number and Cumulative Amount, 2007–2020



SOURCE: MASAV.

Payment cards

2.8% Of total value

69.7% Of total transactions

There are four main participants in the payment card market:

The Issuer - The entity that provides the customer with the payment card according to an agreement between them⁷⁴, usually a bank or credit card company. The issuer manages the cardholder's account with it, including the credit line if the cardholder has one.

The Acquirer - The entity that enables the business to honor payment card transactions, sends the debit approval request to the issuer, and if this is approved it guarantees the payment to the business.

The Cardholder - The person who performs transactions with merchants using a payment card.

The merchant - The party that receives the funds according to the dates specified in the agreement between it and the acquirer.

There are several types of payment cards in Israel:

Deferred Debit Card - The most common card in Israel today. The customer buys goods and services and pays for them once a month, sometimes in several deferred payments.⁷⁵ The business receives a credit, according to the acquiring agreement, and finances the credit days that elapse between its credit and the customer's debit. This card is linked to the customer's credit facility, and permits the withdrawal of cash through automatic machines (ATMs), and/or payment for goods and services at businesses up to the credit facility allocated by the issuer.

When the customer spreads the payment for a transaction as instalments, the deferred debit involves one of two types of credit:

- a) Credit at the expense of the business - granted by the business owner for a period of a few days to a few months;
- b) Credit at the customer's expense - the credit card companies extend the customer credit for a period of several months, and sometimes for more than a year, through "credit" programs.

The deferred debit card is not a full replacement for cash because it has a financing component, and is therefore only accessible to consumers for whom the card issuer has set a credit facility.

Direct (or Immediate) Debit Card - With this card, the accounts of the holder (buyer) and the seller are debited and credited, respectively, immediately upon execution of the transaction.⁷⁶ The card provides the convenience inherent in a payment card, while also providing an (almost) immediate transfer of payment, similar to cash, check (not postdated), and bank transfer. An immediate debit card transaction costs the issuer less than a deferred debit card transaction, regardless of the scope of the transaction.⁷⁷ For customers in Israel, according to Banking Supervision Department guidelines, a reduced card fee has been set for the immediate debit card: For customers who also hold a deferred debit card or a credit card, no fee will be charged for the first three years for the immediate debit card. (This is to encourage people to hold an immediate debit card.) In addition, the Banking Supervision Department guidelines state that the fees charged for immediate debit cards will be lower than the fees charged for deferred debit cards or credit cards. Immediate debit card transactions are common globally, but are less common in Israel.

Revolving Credit Card - The holder of this card can set the ceiling for the monthly billing amount, and the balance of the debt accumulated for additional card purchases is deferred to the following month(s) and accrues interest.

Prepaid Card - This is a payment card, in shekels or foreign currency, that the customer loads in advance for the maximum amount per card. Each payment is deducted from the balance of the card until it resets to zero. Cards of this type include customer loyalty cards, club member cards that allow payment at designated retail chains, and more. These cards can be reloaded, meaning that they are reusable, and some are identified while others are anonymous.⁷⁸ These cards are issued by credit card companies and the Postal Bank, and can be used at any business that accepts the issuer's payment cards. The loaded card allows transactions to be executed up to the amount that is loaded on the card at that time, and the amount is updated after each transaction. The card can be loaded in several ways: directly from the bank account; by debiting a deferred, revolving, or immediate payment card, or by paying with cash.

In addition to these payment cards there are also one-time Prepaid cards. These include gift cards and virtual debit cards issued by the credit card companies, among other things. The latter make it possible to make purchases on the Internet without revealing the details of the purchase or the

purchaser. They carry the details of an alternative payment card, which can be loaded on a one-time basis up to a limited amount, while the details of the payment card used to load the card are stored in a secure and encrypted system. If there is a balance left on the card, it can be unloaded. Prepaid cards may be used as a cash substitute for customers who do not have a bank account, and may be used by minors under the age of 14.

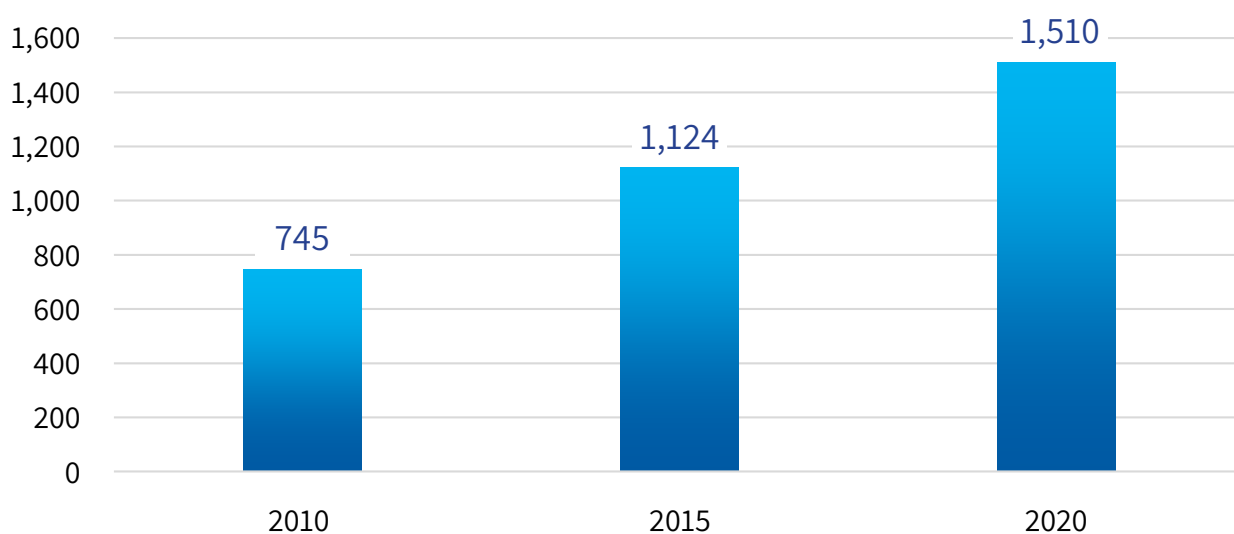
Upon receipt of payment using a deferred debit card, the business owner in Israel receives payment on the dates agreed with the acquirer, while with an immediate debit card or prepaid card, the business owner receives the credit to the business within three business days of the transaction.

There are three credit card companies in Israel—"Isracard", "Max", and "CAL"—and they issue five local and international credit card brands: "Visa", "MasterCard", "American Express", "Diners" and "Isracard". The companies issue and acquire the cards according to licenses they have received from the relevant international organizations. Activity in the field has expanded considerably in recent years, influenced by several factors: nonbank entities have begun issuing payment cards; the credit and financing companies have expanded their range of services through tools that allow cardholders to determine the amount and date of the monthly debit according to their needs and capabilities; the use of payment cards at merchants is convenient and available; and the offerings of ecommerce sites are expanding.

The number of payment cards in Israel has increased in recent years. The number of active payment cards (those with which at least one transaction was made during the last quarter) increased by about 1.2 percent in 2020, from about 9.3 million to about 9.46 million. Since 2016, the number has increased by about 19.7 percent. There were about 1.113 million active immediate debit cards in 2020, an increase of about 13.8 percent from 2019 (978,000 active immediate debit cards that year). The number of payment card transactions in Israel using cards issued in Israel remained stable, at approximately 1.5 billion transactions in 2019 and 2020.⁷⁹

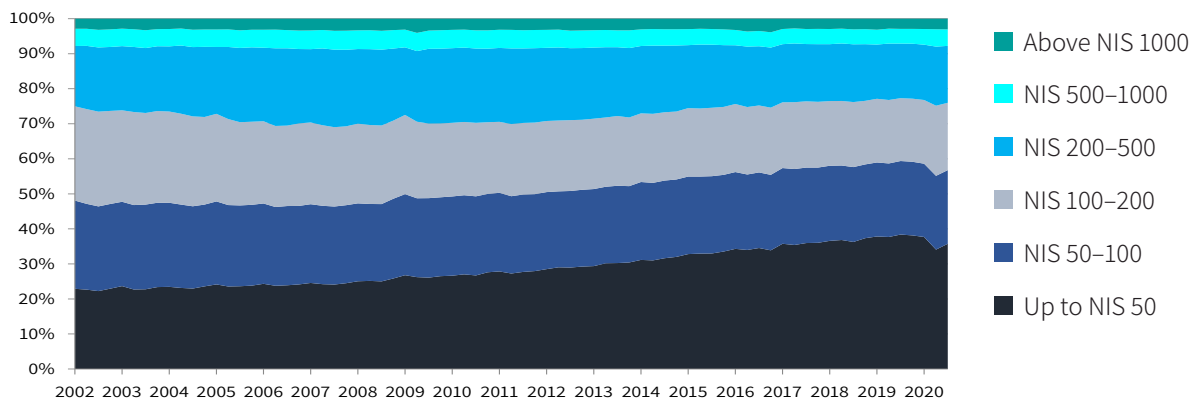
The value of payment card transactions is increasing, totaling about NIS 327 billion in 2019 and 2020. Most transactions made between 2014 to 2020 (about 75 percent) were for less than NIS 200, a figure that may indicate that payment cards are used as a cash substitute for purchasing goods and services in the retail sector.

Number of payment card transactions (million)



SOURCE: SHVA (AUTOMATIC BANK SERVICES).

Figure 16: Payment Card Transactions by Volume, 2002–June 2021



SOURCE: Bank of Israel..

As mentioned in Chapter 1, the Israeli market has begun to adapt to smart payment cards that use the EMV advanced security standard⁸⁰, because these provide new benefits. First, to use them you have to enter a code at the terminal at the merchant’s premises, which reduces the use of stolen or lost cards. The move to smart cards will therefore reduce the potential for fraud and increase trust on the part of customers and credit card companies. Second, the transition to a new technological infrastructure that supports EMV will adapt the Israeli economy to globally accepted norms. This will expand the ability to pay abroad using credit cards issued in Israel, and will also enable the expansion of infrastructure required for proximity-based (contactless) technology.

Advanced digital means of payment

The momentum of development in means of payment is producing innovative payment solutions—secure and available options for the use of new devices and channels and options to improve payment efficiency and security. As part of this development, smartphones are now being used to perform a wide range of financial operations: paying salaries to temporary or foreign workers; payment for taxis; payment for parking; approval of transactions for companies and individuals; purchase and sale of securities (remote access to the bank’s securities system); obtaining information; transferring funds to customers of other banks; rapid transfer of funds between private individuals; withdrawing cash from ATMs without a card, and more. Further details on this subject are provided in the overview of main developments in Chapter 1.

Foreign currency transfers abroad

Foreign currency transfers abroad are made through the banking corporations, the Postal Bank and currency exchange service providers⁸¹ throughout the country. These payments are made through various payment and communication system infrastructures: SWIFT, GMT⁸², Western Union, MoneyGram, and others. In some cases, the payment is made directly to a currency exchange service provider abroad that has an agreement with the currency exchange service provider in Israel. These money transfers make it possible to deposit cash in Israel and withdraw it abroad.

Foreign currency transfers for foreign workers are also made through the Postal Bank and currency exchange service providers, mainly because in these institutions the service does not require the opening of an account.

Chapter 4 | Institutional Aspects



The regulatory framework

In order to anchor the arrangements related to the activities of the Bank of Israel and the various payment systems in Israel, a solid legal basis is required. This chapter presents the laws and agreements that regulate the activity of the payments system in Israel.

Section 4 of the Bank of Israel Law, 5770–2010 stipulates that one of the Bank of Israel's functions is "Regulating the economy's payment and settlement systems so as to ensure their efficiency and stability." Based on this Section, various reforms were carried out in the payments field, and the laws discussed below were promulgated. As part of the reform of the payment and settlement systems in Israel, the Bank of Israel led the enactment of the **Payment Systems Law, 5768–2008**, the purpose of which is to regulate the activity of the payment systems in Israel and minimize the risks in those systems. The law addresses the arrangements necessary for the proper operation of a payment system, and includes, among other things, a definition of the term "payment system", wording of the criteria for finality of payments in the system, and discussion of the failure of a participant in the system. The law also authorizes the Bank of Israel to declare payment systems as controlled or designated controlled systems, and to determine the obligations applicable to the operator of a controlled or designated controlled system.

In August 2011, the Knesset approved **Amendment No. 18 to the Banking (Licensing) Law, 5741–1981**. As part of the amendment, a chapter was added that dealt with the settlement of payment card transactions. Among other things, it prohibits engaging in such settlement without a merchant acquirer's license from the Governor of the Bank of Israel. A company that receives a merchant acquirer's license is subject to Bank of Israel supervision.

The Prohibition of Money Laundering Law, 5760–2000 was enacted in August 2000, and about a eighteen months later, the chapters relating to the obligations imposed on financial entities came into force. At the same time, the Governor of the Bank of Israel also issued a directive prohibiting money laundering, which imposes requirements on banking corporations regarding customer identification, record keeping and reporting to the Israel Money Laundering and Terror Financing Prohibition Authority. At the beginning of 2005, the **Prohibition of Terrorism Financing Law, 5765–2005**, came into force, and at the same time the guidelines for the Israeli banking system were changed to include measures to combat the financing of terrorism (CFT). An additional step in this war was taken in November 2006, when the Knesset approved regulations relating to the prohibition of terrorism financing. New measures are constantly being considered in Israel as part of the war on money laundering and the financing of terrorism (AML/CFT), and existing measures are being reconsidered or updated. This is all in accordance with various developments and in order to deal with the increase in the level of sophistication of crime in this field. The measures include changes in legislation and the updating of regulations to elevate the requirements in the area of risk management, including special requirements regarding the use of payment cards, the purpose of which is to prevent the execution of illegal transactions via the Internet.

In March 2011, the Knesset approved **Amendment No. 3 to the Financial Services Supervision (Pension Consulting and Pension Marketing) Law, 5771–2011**. The amendment regulates the

establishment and operation of a pension settlement system, as well as the conditions and services that it will provide.

On February 2, 2014, an **Amendment to the Prohibition of Money Laundering Order relating to the identification, reporting, and management of banking corporation records to prevent money laundering and the financing of terrorist activity, 5761–2001**, was published in *Reshumot* (the Official Gazette), after it was approved by the Knesset's Constitution, Law, and Justice Committee on October 29, 2013. The Amendment to the Order includes new AML/CFT provisions. To illustrate, requirements were added regarding the examination and registration of the names of the parties to international transfers, the Know-Your-Customer obligation was anchored and related instructions and requirements were added, an obligation to keep documents for a longer period was added at the request of the Supervisor of Banks, and discussion of the list of at-risk countries published by the head of the Israel Money Laundering and Terror Financing Prohibition Authority in accordance with FATF⁸³ publications was added. The amendment also refers to the definition of "extraordinary activity" that requires a report to the Authority, as set forth in Section 1. This definition was amended to read: "An activity that, in light of the information available to the banking corporation, has raised concerns that it is related to activities prohibited under the Prohibition of Money Laundering Law or the Prohibition of the Financing of Terrorism Law". The order came into effect on August 2, 2014.

Also that year, on May 12, 2014, the Knesset's Constitution, Law, and Justice Committee approved the wording of the **Amendment to the Prohibition of Money Laundering (Obligations of Identification, Reporting, and Management of Records of Currency Exchange Service Providers) Order, 5762–2002**. The amendment includes new provisions, which will apply to currency exchange service providers as defined in the Prohibition of Money Laundering Law, 5760–2000. Among other things, they are required to carry out a "Customer Due Diligence" (CDD) procedure for regular customers, obligations were established regarding foreign public figures, an obligation was imposed to verify the identification details of service recipients, reliefs were provided in order to allow currency exchange services without face-to-face identification in certain circumstances, duties were imposed regarding the prohibition of the financing of terrorism, a currency exchange service provider whose annual turnover exceeds NIS 3 million is required to establish a computerized database, and the reporting thresholds for the Israel Money Laundering and Terror Financing Prohibition Authority were updated. The order took effect on March 30, 2015.

Shortly after the approval of the amendment to the **Prohibition of Money Laundering Order, on July 30, 2014**, the Knesset plenum approved in second and third readings the Prohibition of Money Laundering Bill (Amendment No. 13) (Business Service Providers), 5774–2014, which deals with the application of the prohibition of money laundering and terrorism financing regime to business service providers (lawyers and accountants). The amendment is intended to prevent the misuse of business service providers who perform financial transactions for their clients for the purpose of money laundering or terrorism financing, and was set out in accordance with international standards in the area, including a requirement to apply the policy to these sectors.

Amendment to the Prohibition of Money Laundering Law, 5760–2000, published on August 7, 2014, and the **Prohibition of Money Laundering (Obligations of Identification and Management of Records of a Business Service Provider to Prevent Money Laundering and Terrorism Financing) Order, 5775–2014, which was published on December 2, 2014**, apply obligations regarding the prohibition of money laundering and terrorism financing to lawyers and accountants

who provide clients with certain business services that are specified in the law.

On January 31, 2018, the Knesset's Constitution, Law, and Justice Committee approved the Prohibition of Money Laundering (Identification, Reporting, and Management of Records of Credit Service Providers to Prevent Money Laundering and Terrorism Financing) Order 5778–2017, which applies the AML/CFT regime to credit services providers.

The activities of credit service providers are regulated by the Financial Services Supervision (Regulated Financial Services) Law, 5777–2016. As part of this law, a new financial regulator was established for comprehensive regulation of the financial services industry, including noninstitutional credit providers.

Payment service providers - Update from 2021

On August 1, 2021, the government decided to task the Minister of Finance with publishing a legislative memorandum, within 150 days from the decision, to regulate the provision of payment services. The supervision and regulation of payment service provision will be done by the Israel Securities Authority. In addition, it was decided to task the Minister of Finance and the Minister of Justice with publishing legislative memoranda, within 150 days of the decision, that will enable initiated payment services. The Bank of Israel's Payment and Settlement Systems Department led an interministerial team that formulated the principles for licensing the provision of initiated payment services. The team included the Banking Supervision Department, the Ministry of Finance Budget Division, the Ministry of Justice, the Competition Authority, the Israel Securities Authority, and the Capital Market, Insurance, and Savings Authority. These principles were included in the draft of the Regulation of Payment Service Provision Law.

The AML/CFT Policy was imposed on credit service providers by adding them to the Third Addendum to the Prohibition of Money Laundering Law, 5760–2000. This enables the Minister of Finance to set out their obligations for identification, record management and preservation, and reporting as stated in Section 7(b) of the Prohibition of Money Laundering Law. The Order requires credit service providers to identify and verify a service recipient, perform a know-your-customer procedure, report certain actions to the Money Laundering and Terror Financing Prohibition Authority, manage controls of the service recipient's activities, check if customers appear on the list of terrorist operatives, and record and maintain documentation. The order also provides for certain reliefs when the credit is given in a closed or semi-closed system and when the service provided is in a small amount, as defined in the Order. The Order took effect on March 15, 2018, was approved by the Knesset's Constitution, Law, and Justice Committee on January 23, 2019, and is intended to regulate the obligations regarding the prohibition of money laundering and terrorism financing that will apply to operators of credit intermediation systems. On April 10, 2019, the order was published in *Reshumot* (the Official Gazette).

Prevention of Money Laundering Order - Update from 2021

On November 14, 2021, the Prohibition of Money Laundering (Financial Service Providers) Order took effect. The Order applies to all new service providers: fintech companies, credit providers, and cryptocurrency companies. Under the Order, entities providing these services will be subject to the obligations stipulated in the Order, in order to prevent potential money laundering or terrorism financing through these companies. The Order applies the AML/CFT regime to financial asset service providers by expanding the Order that applies to credit service providers to this sector as well, with necessary adjustments. It also updates a number of provisions of the Order that currently apply to credit service providers, in accordance with international standards in the field. Among other things, it sets out provisions that require the identification and verification of service recipients, as well as requirements for reporting to the authorities regarding the activity of service recipients and unusual events. The Order provides an opportunity for a permanent license to be granted to entities dealing with digital currencies.

On February 1, 2016, the Digital Check Settlement Law, 5775–2015, was approved, and on November 21, 2017, the implementation of the law was completed. The full implementation of the Digital Check Settlement Law allows the conversion of a paper-based check into a digital record, which can be legally used as evidence and will be recoverable at any time if necessary, without keeping the physical paper check. The implications of the Digital Check Settlement Law for the clearing and settlement process are very significant. The physical paper check will be retained at the bank where it is presented for payment, will be photographed, and its image will be sent to the debited bank, without the need to continue keeping the physical paper check for years as was previously required. In addition to the changes in the presentation process, the check return process has also changed. When a check is returned, the customer can ask the bank, digitally, to present it again, unless the reason for returning the check prevents further presentation; request from the bank a document called "Output of a Computerized Check", which will serve as a legal substitute for the physical paper check itself; or independently print the "Output of a Computerized Check" from the website of the bank where the customer's account is managed.

On January 31, 2017, the **Increasing Competition and Reducing Concentration in the Banking Market in Israel (Legislative Amendments) Law, 5777–2017**, was published in Reshumot. The Law amended the Banking (Licensing) Law, 5741–1981, in order to implement the main recommendations of the Committee to Increase Competition in Common Banking and Financial Services (the "Strum Committee"). A section was added to the law, according to which a bank that has a wide range of activities, meaning a bank whose asset value exceeds 20 percent of the asset value of all the banks in Israel, will not engage in the issuance of payment cards or the settlement of payment card transactions. This section was intended to disengage the credit card companies from the large banks that owned them, and to allow these companies to pose a competitive threat to the banking system in the retail credit field. Subsequently, in 2019, the disengagement of Max Ltd. from Bank Leumi Ltd. was completed, and in 2020 the disengagement of Isracard Ltd. from Bank Hapoalim Ltd. was completed.

In July 2017, a Legislative Memorandum dealing with the essential provisions and consumer protections of the Payment Services Law, 5777–2017 was published for public comment. This Memorandum proposes to replace the Payment Cards Law, 5746–1986 with a comprehensive law that is in line with the technological developments in the area. The Memorandum is based on European regulations, in accordance with the principles established by the Committee. The Memorandum seeks to regulate two main contractual systems: (1) the contractual system between a payment service provider, i.e., a means of payment issuer or a payment account manager, and the payer; (2) The contractual system between a payment service provider, i.e., a merchant acquirer or account manager and the beneficiary. The Memorandum also seeks to establish general provisions regarding the execution of payment orders and liability arrangements relating to them.

The law was formulated and advanced by the Ministry of Justice, and took effect in October 2020. It is the result of a collaboration between the Ministry of Justice, the Bank of Israel, the Ministry of Finance, and the Competition Authority.

On August 7, 2017, the Bank of Israel published a draft of the Banking (Conditions for Hosting an Acquirer) Rules, 5777–2017⁸⁴.

The Rules are intended to regulate the status and operation of a hosted merchant acquirer, including the hosting conditions. In parallel, the regulation of all aspects of licensing that will apply to payment service providers is being advanced, through an **amendment to the Financial Services Supervision (Regulated Financial Services) Law, 5776–2016**. The amendment establishes a licensing obligation for payment service providers and regulates the supervision applicable to them. The new law features general

provisions and definitions, so that all parties involved in the provision and execution of payment services are subject to it and the liability arrangements arising from it. In view of this, the new law applies to all types of payment service providers, both on the issuance side (payment service providers for the payer) and on the settlement side (payment service providers for the beneficiary). As such, all means of payment are subject to the new arrangement, including current accounts; digital wallets; payment applications; and transfers via payment accounts or means of payment, in addition to payment cards. As of February 2022, the new law is also expected to apply to one-time means of payment (cash substitutes), which are "means of payment" according to the language of the law, so that all its provisions will also apply to gift cards, one-time purchase vouchers and the like.

Although the Payment Services Law is based on the European Payment Services Directive, it maintains the main consumer protection arrangements under the Payment Cards Law. In the area of consumer protection, the law imposes strict obligations on payment service providers to disclose details and risks in the service, and prohibits conduct that may mislead the customer. The law gives customers a variety of rights, including the option to request a freeze on the means of payment for a limited period—not to exceed two weeks; the right to deny a transaction and receive a credit (conditional) for a variety of reasons—from a claim that another person and not the customer used the means of payment, through a claim regarding actual debit in a different amount than agreed between the beneficiary and the customer, to claims regarding "missing document transaction", meaning a transaction performed without inserting the physical card and without entering the secret code at points of sale, for example in online transactions or transactions using proximity payments (NFC).

The law also obligates the payment service to identify the customer and obtain his or her express consent to the establishment of a debit authorization as a condition for its establishment, for example when establishing a "standing order" in the customer's current account or through the customer's credit card. The law grants the customer the power to revoke a standing order at any time by notifying the beneficiary or the service provider. The law also stipulates that a standing order that has not been used for two years is automatically revoked.

Another innovation of the Payment Services Law is in the area of a payment service provider's responsibility toward the customer. In the case of a payment transaction that involves the participation of several payment service providers, where one of them has a glitch, they all jointly and individually bear responsibility for clarifying the cause of the glitch and taking reasonable measures to compensate the customer. This means that the customer has the right to contact any of the payment service providers involved in the payment transaction, at his or her own choice. The payment service provider must compensate the customer if it was responsible for the glitch, and if it was not responsible, it must act with the payment service provider that was responsible in order to clarify the customer's claim.

On August 13, 2018, the Ministry of Finance published a Memorandum of the **Supervision of Regulated Financial Services (Provision of Payment Services) Law, 5778–2018**. The memorandum is part of the implementation of the conclusions of the Committee to Increase Competition in Common Banking and Financial Services, which recommended regulating the activities of nonbank payment service providers in accordance with the requirements of the Second European Payment Services Directive (PSD2), adapted to the Israeli market. The Memorandum seeks to regulate the operations of payment service providers: the management of a payment account that allows the transfer of payments in respect of products and services; the issuance of means of payment; the settlement of payment transactions; and the provision of ATM services. The main points of the memorandum are: naming the regulator and setting out the supervisory authorities; licensing requirements and obtaining permits to control and hold a licensee; special restrictions on payment service provision licensees; and conditions of access to controlled payment systems.

On October 14, 2020, the **Payment Services Law, 5779–2019**, came into force, which repealed the Payment Cards Law, 5746–1986. The purpose of the law is to regulate the balance of power in general, and the contractual relations in particular, between all payment service providers and their customers (payers or beneficiaries). The Payment Services Law was enacted in view of the Israeli market's transition, starting in November 2020, to the use of the EMV standard, which allows payment by payment cards using a "smart chip" without the need to swipe the magnetic stripe in payment terminals.

On March 12, 2018, the Knesset plenum approved the **Reducing the Use of Cash Law, 5778–2018**. The bill was raised in the government in accordance with a 2014 decision that adopted the recommendations of the Committee to Examine Reducing the Use of Cash in Israel's Economy. The purposes of the law are to reduce the volume of unreported capital in Israel, to combat money laundering, and to enable the use of advanced and efficient means of payment. Legislative work began in 2015, the Legislative Memorandum was approved in first reading in the Knesset on March 8, 2018, and in second and third readings on March 12, 2018. The law stipulates that above a certain value, the parties will be prohibited from giving and receiving payment either in cash or in checks that are not intended solely for the beneficiary. It is also forbidden to make payment by check without specifying the beneficiary's details on the front of the check. Violating the restrictions involves financial sanctions or fines for both parties to the transaction. The law took effect on January 1, 2019.

Reducing the Use of Cash - Update from 2021

On November 11, 2021, an Order was published in *Reshumot*, according to which the limits on the use of cash will be lowered, effective August 1, 2022. According to the Order, which was approved by the Knesset Constitution, Law, and Justice Committee on October 27, 2021, the upper limit of a permitted cash payment involving a merchant, for a transaction, salary, donation, or loan, will be NIS 6,000 instead of NIS 11,000. The upper limit permitted for a cash payment to a person who is not a merchant, for a transaction, salary, donation, or loan, will be NIS 15,000 instead of NIS 50,000 (other than for the purchase of a vehicle, for which the permitted amount will remain NIS 50,000). The Committee also approved a fine of 5 percent of the contravention for receiving a salary payment in cash of between NIS 6,000 and NIS 8,500, and fines of 10, 15, or 25 percent of the contravention will be issued (depending on the transaction amount) for transactions other than salaries. The lower amounts will take effect on August 1, 2022, and in the first two years, a temporary order will be in place regarding salaries, under which there will be no administrative fine for contraventions in terms of salaries unless a warning has already been sent. A repeat offense will result in a double fine.

On June 28, 2020, the Ministry of Finance published a **Legislative Memorandum for Encouraging the Development of Financial Technology in Israel, 5780–2020**. The Memorandum reflects the Israeli interest in encouraging the fintech industry in Israel. It reviews the benefits of the fintech field and its potential for streamlining the financial system and reducing the costs of financial services to consumers. The Memorandum states that although the State of Israel is one of the leading countries in the world in the fintech sphere, the traditional regulatory provisions common in the country are not compatible with the innovative products and services offered by fintech companies. This incompatibility encourages fintech companies to move their activities outside of Israel. To address this difficulty, the Minister of Finance appointed an interministerial team to examine the establishment of a regulatory environment that facilitates and is adapted to companies that use new technology for the purpose of providing financial products and services. The team included representatives from the Israel Securities Authority, the Ministry of Justice, the Ministry of Finance Budget Division, the Supervisor of Banks at the Bank of Israel, the Bank of Israel's Payment and Settlement Systems Department, the Capital Market, Insurance, and Savings Authority, the Money Laundering and Terror Financing Prohibition Authority, and the Tax Authority. The team found that regulation constitutes a significant barrier to the commencement of operations and the business development of fintech companies. It therefore recommended the establishment of a testing environment platform that enables learning

and trial and error in order to address the regulatory challenges posed by fintech companies, both on the part of companies and on the part of regulators. The Memorandum proposes to adopt the team's recommendation and establish an experimental environment for fintech companies. In this way, Israel will join many countries in the world that have already created a Regulatory Sandbox—an experimental environment designed to adapt existing regulation to fintech companies.

The program will be implemented through a committee, which will include representatives of all the financial supervisory authorities in Israel as well as a representative of the Money Laundering and Terror Financing Prohibition Authority, and its role will be to coordinate the handling of all companies that operate within the experimental environment.

Rules of the ZAHAV system and the Paper-Based (Checks) Clearinghouse

In addition to the aforementioned legislative amendments, the Bank of Israel has signed several agreements and memoranda of understanding with entities operating in the payment and settlement systems in Israel: the banking corporations, MASAV, and the Stock Exchange Clearinghouses. The agreements include the **ZAHAV System Rules and the Paper-Based (Checks) Clearinghouse Rules**. Deviation from these rules may lead to malfunctions in the payment systems or affect their stability. The ZAHAV System Rules anchor the rules and arrangements for the operation of the ZAHAV system and the duties of each participant in it. These rules apply to all participants and are binding on them by virtue of the participation agreements they have signed. They are valid from the date of activation of the system (July 30, 2007), and include regular updates that the Bank of Israel manages and distributes in versions that are published from time to time. The functional, technical, and operational information contained in the rules, including the appendices, is confidential, and the participants in the system and those acting on their behalf can only use it for the purposes of their activities in it. The Paper-Based (Checks) Clearinghouse Rules regulate the relationship among the participants and between them and the Clearinghouse. Changes to the Clearinghouse Regulations are usually introduced in accordance with a decision by the members of the Clearinghouse Committee. The regulations and their appendices set out the conditions for the structures of the various settlement messages as well as the forms used for that process.

Financial intermediaries

The entities that provide services within the payment and settlement systems are:

The banking system

The banking system in Israel includes⁸⁵ Israeli commercial banks, foreign banks, credit card companies, settlement companies, SHVA (Automatic Banking Services Ltd.), and MASAV (Banks Settlement Center Ltd.). The banking corporations provide a wide range of banking services, and participate in the various settlement systems. The banking corporations are subject to the supervision of the Banking Supervision Department at the Bank of Israel.⁸⁶

Stock Exchange Clearinghouses: The Securities Clearinghouse and the MAOF (Derivatives) Clearinghouse are subsidiaries of the Tel Aviv Stock Exchange Ltd., and they operate under the **Securities Law, 5728–1968**, and in accordance with the clearinghouses' bylaws. The Bank of Israel has signed a **memorandum of understanding with the Israel Securities Authority**, in order to regulate the cooperation between them with regard to the Stock Exchange Clearinghouses and to transfer information on the clearinghouses' activities from the Israel Securities Authority to the Bank of Israel.

The Postal Bank: A subsidiary of Israel Post. The bank provides a variety of financial services to business customers, government entities, and the general public through branches located throughout the

country. These include teller services for various payments, current account management, and foreign exchange services. According to the **Postal Law, 5746–1986**, the bank is not allowed to provide its customers with credit against deposits (because it is not allowed to pay or charge interest). The Postal Bank is wholly government-owned, supervised by the Ministry of Communications, and it participates in the various payment systems, including the ZAHAV system.

Credit card and settlement companies: There are three credit card companies in Israel⁸⁷, which issue bank and nonbank payment cards and also offer their customers various credit solutions. In addition, there are two settlement companies.⁸⁸

Banks in the Palestinian Authority: There are 13 banks operating within the Palestinian Authority that are represented by Israeli banking corporations in the Paper-Based (Checks) Clearinghouse. Their customers use Israeli currency checks within the Authority.

The Bank of Israel's role with regard to payment systems

The payment and settlement systems are an essential part of the economic and financial infrastructure of modern economies, and their efficient functioning contributes to the development and financial stability of those economies. Section 4(5) of the Bank of Israel Law stipulates that one of the Bank's functions is "regulating the economy's payment and settlement systems, so as to ensure their efficiency and stability." The Bank of Israel acts to promote the safety, reliability, and efficiency of the payment and settlement systems, and takes measures to reduce the risks associated with clearing and settlement.

The Payment and Settlement Systems Department is responsible for maintaining the safety, stability, reliability, and efficiency of the payment and settlement systems, and to this end, it operates in three parallel channels:

1 Operation of payment systems

The Bank of Israel operates the ZAHAV system and the Paper-Based (Checks) Clearinghouse, and participates in some of the various payment systems for the purpose of making payments. In this framework, the Settlement Systems Management Unit continuously monitors activity in the systems and their users in order to identify potential failures in advance; deal with cases of operational, technical, or business failure of systems or of one of the settlement participants; provide support to participants; and monitor and control shekel settlement by CLS in the ZAHAV system. These actions require digital links and interfaces to financial institutions in Israel and abroad. The links are created through various communication interfaces and appropriate applications.

2 Control and supervision of payment systems

The recognition of the importance of the payment and settlement systems and the size of the risks they face has prompted central banks around the world—including the Bank of Israel—to establish a system that monitors and supervises the activities of those systems.

The Payment Systems Law anchors the Bank of Israel's authority to conduct control of payment systems. Among other things, the law sets out the conditions and considerations for declaring a payment system as a controlled system or a designated controlled system, the tools available to the Bank of Israel in exercising its authority over system operators, and the obligations applicable to system operators. According to the Bank of Israel Law, the Bank may demand information from payment systems and order them to change the manner in which they operate. In 2008, the Bank of Israel declared the ZAHAV system and CLS as designated controlled payment systems, subject to the

Bank of Israel's control authority. In July 2013, the Bank of Israel declared three additional payment systems as controlled systems: "Credits, debits and payment transfers", which is operated by MASAV, and "payment card services" and "automatic banking machines" which are operated by SHVA.

The main role of the Payment Systems Supervision Unit at the Bank of Israel is to regulate the activities of the controlled and designated controlled payment and settlement systems in order to ensure their efficiency and stability. The unit also examines how payment systems comply with international Principles for Financial Market Infrastructures (PFMI).⁸⁹ These principles address a variety of aspects, including general organizational aspects such as legal foundations and corporate governance; the management of credit, settlement, liquidity, business, and operational risks, and the management of the system in a state of failure; system accessibility; efficiency; and transparency.⁹⁰

3 Implementation of improvements and advancement of reforms in the payments array in Israel

Payment and settlement systems policy sets out a strategy and works to improve the stability and efficiency of the payments array in Israel. This is done through: (1) expanding the use of advanced and secure digital means of payment for the general public and establishing guidelines to encourage their use, reducing the use of paper-based means of payment, promoting digital alternatives, and regulating the supporting legal framework; (2) establishing and enforcing rules for activity in the payment systems operated by the Bank of Israel; and (3) Initiating reforms for the purpose of advancing payment and settlement systems and future means of payment.

Entities in the payment and settlement field

The National Council for Payment and Settlement Systems was established in 2009, and is an advisory body that serves as a forum for cooperation and information sharing. All participants and entities that affect the universe of payments in Israel are members. The Council meets approximately once a year and discusses various issues related to the payment and settlement systems field. The purpose of its activity is to assist in advancing the efficiency and stability of the payment and settlement systems in Israel. The Council's functions and powers are anchored in the ZAHAV system rules. They mainly include: initiating reforms in the payment and settlement systems and cooperation between the entities operating in the systems in Israel; promoting the standardization of payment and settlement system procedures; a joint broad examination with all the relevant participants in the Israeli payment systems in order to obtain a complete overview of the strategic objectives and goals in this array.

The members of the Council include the Bank of Israel, the commercial banks, the credit card companies, the Postal Bank, the financial corporations, the clearinghouses, the regulators, and some government ministries. The composition of the council is expected to expand to also include representatives of various business sector industries relevant to the payments field.

The Paper-Based (Checks) Clearinghouse

The Paper-Based (Checks) Clearinghouse operates according to the **Clearinghouse Rules**.⁹¹ These rules are updated from time to time in accordance with the decisions of the Clearinghouse Committee—a committee composed of representatives of the banking corporations, the Postal Bank and the Bank of Israel. **The Paper-Based (Checks) Clearinghouse is managed by** the Clearinghouse Committee headed by the Bank of Israel, and operates on the basis of an agreement between its members—the Clearinghouse Rules. The Rules regulate its activities and the business and functional relationships among the participants and between them and the system operator. The Clearinghouse is operated by the Bank of Israel and handles mainly checks, which are currently presented only in the digital method. In addition, magnetized payment vouchers are also presented at the Paper-Based (Checks) Clearinghouse.

MASAV

According to the Banking (Licensing) Law, MASAV is a joint services company, defined as a banking corporation owned by the "Leumi", "Hapoalim", "Discount", "Mizrahi Tefahot", and "First International" banks. It provides services to all banks and their customers. MASAV was established in 1982 and operates in accordance with the license and activity permits it has received from the Bank of Israel, and in accordance with the exemption from approving a restrictive arrangement it received from the Israel Competition Authority. The company operates the "Debits, Credits and Payment Transfers" system as a controlled payment system, operates the system for the transfer of members between provident funds and advanced study funds, and provides services for the transfer of information between government entities and banks. The rules according to which the system operates are published on the company's website⁹².

SHVA (Automatic Banking Services) is a private company, operating in several areas: management and operation of the interbank switching system - the ATM network (cash withdrawals); management and operation of the national credit card network - "ASHRAIT" system (payment card transactions); and the settlement interface. The company operates two payment systems, which the Bank of Israel has declared as supervised and controlled systems - "payment card services" and "automatic banking machines".

The Stock Exchange Clearinghouses are the Securities Clearinghouse, which settles trading in securities, and the MAOF (derivatives) Clearinghouse Ltd., which performs settlements in the derivatives market. The Tel Aviv Stock Exchange Ltd. a publicly traded company established by banks and brokers in 1953, operates computerized trading systems for all traded securities: equities, convertibles, bonds, MAKAM, ETFs, short certificates ("shorts"), and options.

The Israel Securities Authority was established pursuant to the Securities Law, 5728—1968, and its role is to safeguard the interests of those investing in securities. Among other things, the Authority handles the publishing of prospectuses of corporations and mutual funds; reviewing the reports submitted by reporting entities; the regulation and supervision of the activities of the mutual fund industry; and the licensing, regulation, and supervision of portfolio managers, investment advisors, and investment brokers. Since the Payment Systems Law was enacted, the Israel Securities Authority has also supervised the Stock Exchange Clearinghouses. The Israel Securities Authority and the Bank of Israel cooperate with regard to the supervision of the Stock Exchange Clearinghouses, in accordance with the Memorandum of Understanding signed between them in 2009, and in supervising the payment service providers in accordance with the progress of the legislative memorandum for regulation of payment service providers.

The Association of Banks in Israel is an umbrella organization for banking corporations in Israel that was established by the banking sector in 1959. It is designed to help the sector engage in effective dialogue on systemic issues with government and with the public and private environment, primarily with the aim of advancing its interests. The organization focuses on the areas of regulation and the economy and on representing banks before government institutions. It also deals with information and research in the field of banking. The Association of Banks also represents the banking sector in the Coordinating Bureau of Economic Organizations, as well as in international forums. The Association of Banks has 13 members, including the Israeli commercial banks and 3 foreign banks with branches in Israel⁹³.

The credit card companies: Credit card companies in Israel issue payment cards, through which customers pay businesses for goods and services. In addition, they provide merchants with clearing and settlement services for payment card transactions. There are three credit card companies in Israel: Israrcad, Max, and CAL. These companies issue and settle local and international brands according to licenses obtained from the relevant international organizations. In addition, there are two settlement companies in Israel: Tranzila Ltd. and Cardcom Ltd. These companies obtained merchant acquirer licenses in 2017 and 2018, respectively. Activity in this area has expanded considerably in recent years, under the influence of several factors: nonbank entities (usually customer membership and loyalty clubs) have begun issuing payment cards; credit and financing companies have expanded their range of services through tools that allow cardholders to determine the amount and date of their monthly charges according to their needs and capabilities; the use of cards in businesses is available and convenient; and the cards enable purchases both over the Internet and over the phone.

Chapter

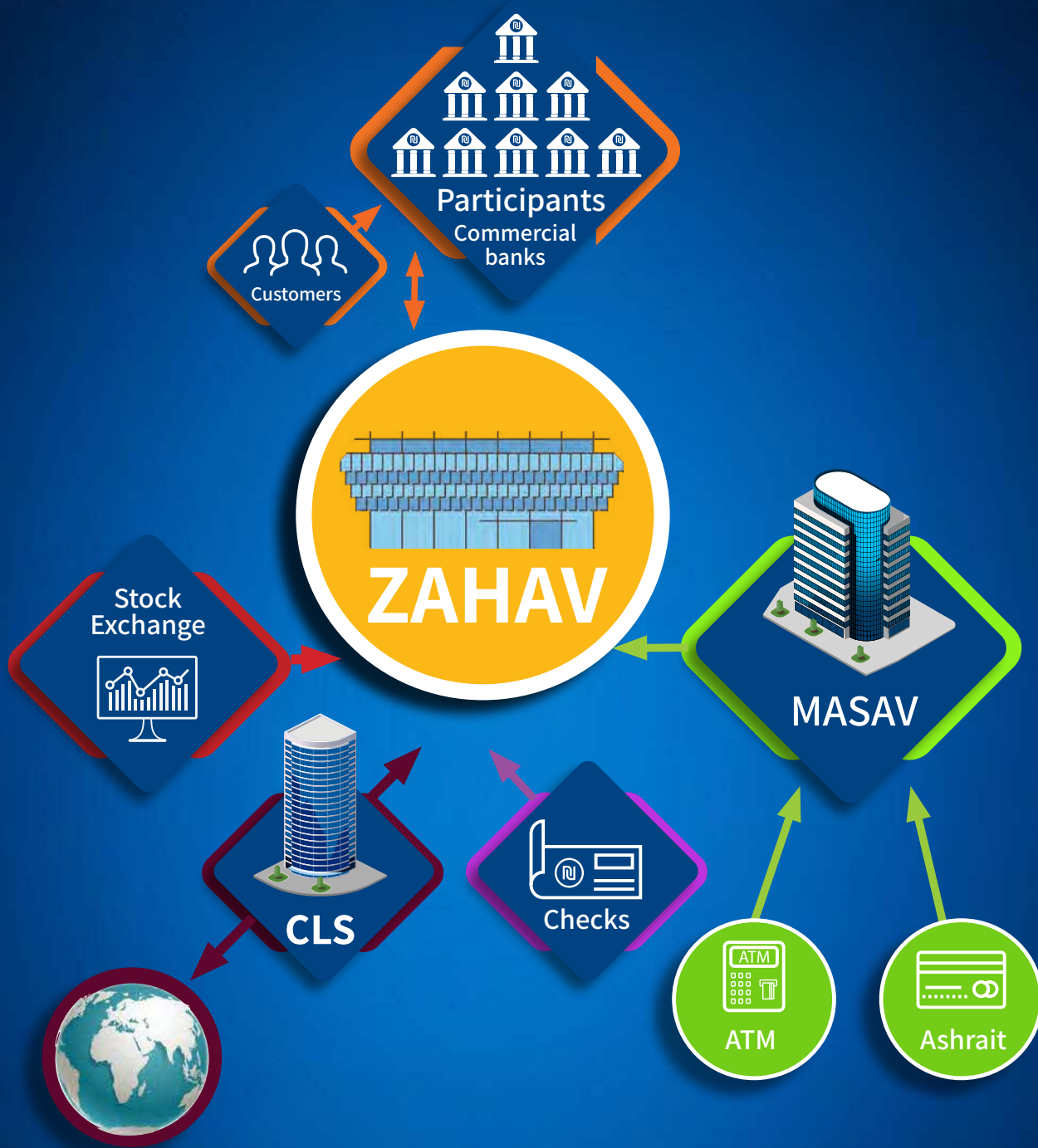
5

Payment and Settlement Systems
and Communication Systems



The existing infrastructure

The payment systems in Israel
Communication systems and infrastructure



The Bank of Israel works to advance the efficiency, stability, reliability, and security of the country's payment and settlement systems.

Payment system availability in 2020



SOURCE: Payment system operators: ZAHAV, MASAV, and SHVA respectively.

The figures on this page show the system availability rate in 2020.

The figures showing the average availability rate of the systems between 2018 and 2020 appear on Page 11.

The payment system in Israel – communication systems and infrastructure

The Bank of Israel acts to promote the efficiency, stability, reliability, and safety of the payment settlement systems in Israel.

The financial infrastructure in Israel consists of interbank payment and settlement systems, means of making payments, and communication systems. The means of making payments are reviewed in detail in Chapter 3, and this chapter reviews the payment and communication systems.

There are seven payment and settlement systems in Israel: (a) ZAHAV, an RTGS system that serves as the final settler for all payment and settlement systems in Israel, is operated by the Bank of Israel; (b) The Paper-Based (Checks) Clearinghouse, which handles checks and vouchers, is operated by the Bank of Israel. (c) The "Credits, Debits, and Transfer of Payments" system, which is a digital system that transmits nonfinal real-time interbank transactions in shekels, such as account debit authorizations, salary payments, and tax payments, is operated by MASAV. (d) The "Payment Card Services" system, which serves as the infrastructure for two-way transmission of messages between merchant acquirers and businesses, collects and transfers transactions, approvals and other details necessary for settlement and payment card transactions, and sorts and associates the transactions with the various merchant acquirers, is operated by SHVA; (e) The "Automatic Banking Machines" system, which provides banking corporations with a switching interface for the ATM networks, is used to transmit information about transactions that customers perform on ATMs that are not operated by the banking corporation where the customer's account is managed, and allows funds to be withdrawn and deposited efficiently and securely. It is operated by SHVA; (f) The Stock Exchange Clearinghouses (the Securities Clearinghouse and the MAOF (derivatives) Clearinghouse), which settle the results of trading on the Tel Aviv Stock Exchange; and (g) Continuous Linked Settlement (CLS—the international clearinghouse for foreign exchange conversions). The shekel was added to CLS in 2008, and as a result, financial entities in Israel can safely carry out conversion transactions with foreign financial entities. Participants in the payment systems include the banking corporations, the Postal Bank, the Bank of Israel, financial entities, the government, and the general public, and they use a variety of payment methods: cash, digital payments (direct credits/debits), paper-based checks and vouchers, payment cards, online (web) payments, transfers abroad, and foreign exchange conversions.

Payment systems - The ZAHAV system

ZAHAV is an advanced RTGS payment system that guarantees its users speed and security at any given moment. Such a system operates in most countries in the world (advanced and developing) The Bank of Israel has been operating the ZAHAV system since July 2007.

The principles of the system

ZAHAV settles payments in one currency—the shekel—in real time and in a final manner, and serves as the final settler of all payment systems in Israel. ZAHAV is an efficient and reliable system that ensures fast and secure payment. Settlement takes a few minutes. Once completed it cannot be cancelled, and the beneficiary can use the funds immediately without being exposed to risks. The ZAHAV system enables the Bank of Israel to examine financial indicators of the state of liquidity in the banks in real time, thereby helping to maintain the stability of its participants. As such, it significantly reduces both the credit and liquidity risks involved in the payment systems, as well as each participant's dependence on the other participants in the settlement process, and significantly reduces systemic risk. As a result, it allows transactions to be carried out safely even in periods of financial uncertainty. In addition, the system provides a high level of security, in accordance with the Israel National Information Security Authority standards, through the use of the SWIFT communication interface and the IBAN code (ZAHAV number).

The ZAHAV system settles each payment order separately, and does not offset the debit transactions of the sending bank from its credit transactions. The system manages payment instructions according to their order of arrival, but allows the participant to prioritize its various payment instructions according to their importance and urgency. If the sending bank does not have a sufficient balance in its account with the Bank of Israel, the payment order is put on hold until a suitable outstanding amount is delivered.

Hours of operation and transactions in the ZAHAV system

The hours of operation in the ZAHAV system have been adjusted to the banking business day.⁹⁴ On weekdays the system is open between 7:45 and 18:30, and on Fridays and holiday eves - between 7:45 and 14:00. The system only allows credits, in two types of transactions:

Two-party transactions - Instructions for debiting the sending participant's account and crediting another participant's account. The transactions are made between the banks' customers, between the banks participating in the settlement process, and between the settlement participants and the Bank of Israel (extending credit to the banks, the banks' deposits at the Bank of Israel, withdrawing cash from the Bank of Israel, and more). Two-party payment instructions are received by the system continuously during all hours of operation, in real time. Upon receipt of the order, the customer's bank branch sends a payment order to a central system in the Bank, and from there it is transferred directly to the ZAHAV system at the Bank of Israel. If the sending bank has a sufficient balance in its account with the Bank of Israel, the operation is carried out immediately. The system debits the sending bank's account and credits the receiving bank's account.

Multiparty transactions – Orders that are executed simultaneously between several participants and consist of several debits and credits. In these transactions, the net results of the other payment systems (MASAV, Paper-Based Clearinghouse, and the Stock Exchange Clearinghouses) as well as orders from

the Bank of Israel are settled. These orders are settled during the day at predetermined time periods—settlement windows—and are given priority over two-party payment orders. On a normal business day there are six settlement windows, of which three are for the Stock Exchange Clearinghouses⁹⁵, two are for MASAV, and one is for the Paper-Based (Checks) Clearinghouse.

In transactions of both types, the debit and credit transactions are, as mentioned, final, and cannot be cancelled.

Intraday management of liquidity in the ZAHAV system

The settlement method in the ZAHAV system requires the banks to maintain intraday management of the liquidity in their accounts. The bank's liquidity must be sufficient for immediate settlement of all payment orders received by the system throughout its operating hours. The activity in the ZAHAV system is conducted through a settlement account that is defined for each participant in the settlement process.

A settlement account consists of a current account—the account in which the payments are settled—and intraday credit accounts. The balance in the settlement account therefore consists of the total balance in these accounts. The intraday credit accounts include intraday credit that the Bank of Israel provides to the participants, which the participants can utilize according to their needs throughout the system's operating hours. The banks receive the intraday credit without interest, for the day of operation only, and must repay it by the time the ZAHAV system shuts down. This credit is given to them against deposits (in shekels and in US dollars) that the participant holds at the Bank of Israel, including government bonds, against foreign securities (as of 2010), and against collateral deposited in a Bank of Israel account on the Tel Aviv Stock Exchange.

The Tel Aviv Stock Exchange has developed a unique system for the Bank of Israel for managing these collateral (an intraday credit system—ICS). The Bank of Israel manages the system, while the Stock Exchange is responsible for its day-to-day operations. When a participant wishes to receive intraday credit from the Bank of Israel against a collateral on the Stock Exchange⁹⁶, it deposits the collateral in the Bank of Israel's account in the ICS system, after which it is entitled to receive the intraday credit in its account in the ZAHAV system. System participants can change the amount of intraday credit that is credited to their account during the day depending on the amount of collateral they hold. The amount of intraday credit is determined according to the “haircut” coefficients. The transaction in the ICS system takes place immediately, and the interface between the banks, the Stock Exchange, and the ZAHAV system allows participants to observe the latest information on credit facilities and collateral details in real time. This means that the system is updated on an on-going basis, depending on the balance of securities used as collateral for the provision of intraday credit. These processes were anchored in an agreement between the Bank of Israel, the Stock Exchange, and the participants in the ZAHAV system.

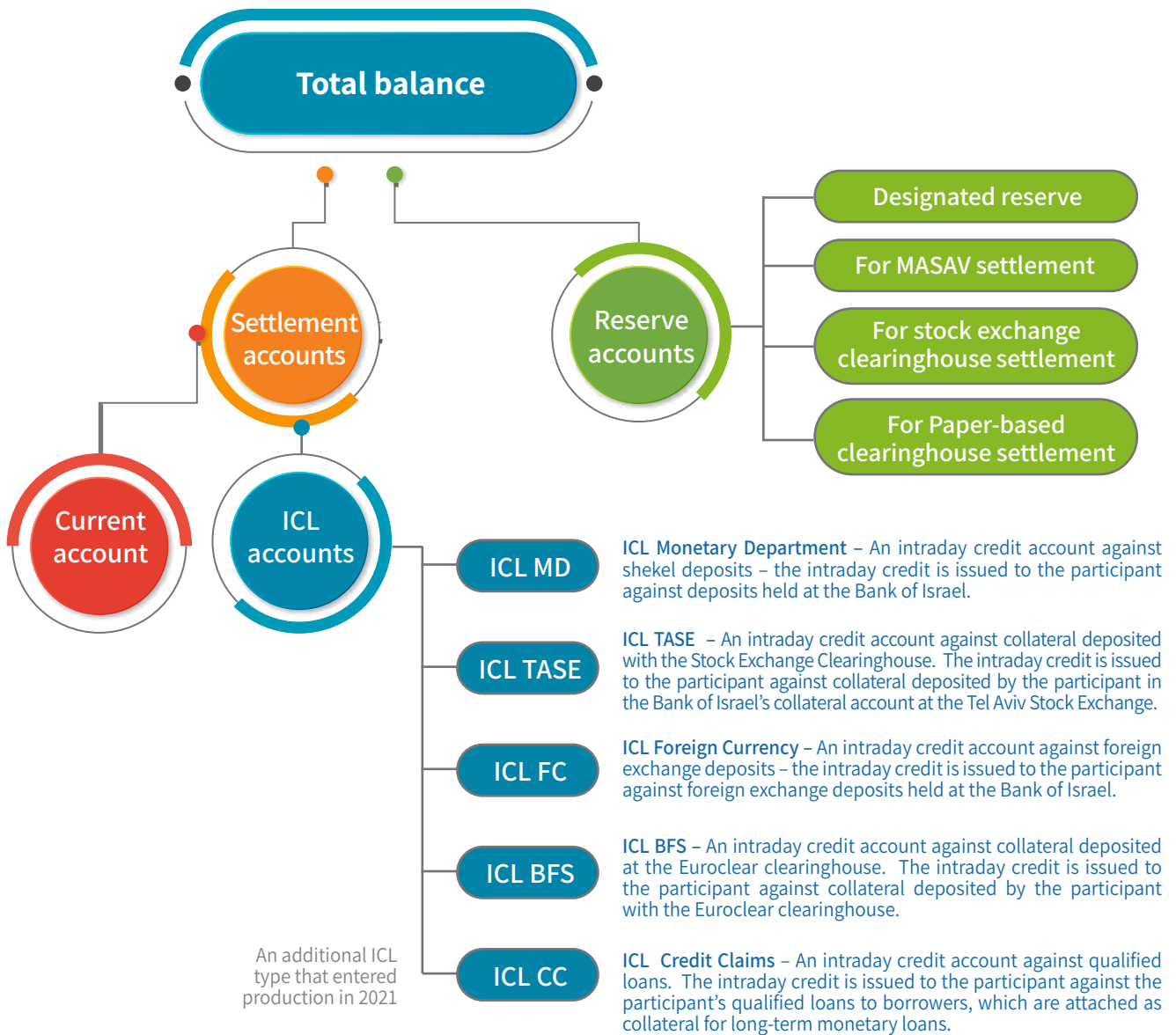
In September 2020, the Bank of Israel Monetary Committee decided on a collection of measures to continue assisting the economy in dealing with the COVID-19 crisis. The variety of tools was intended to deepen monetary accommodation, ensure the continued proper functioning of the financial markets, and support the monetary pass-through mechanism to credit in the economy. Accordingly, among other things, it was decided to establish an infrastructure that would enable the banks to provide collateral in the form of mortgages against long-term loans.

The change was implemented in the ZAHAV system's production environment on December 27, 2020.

September 2020

In addition to the settlement account, each participant has reserve accounts, which maintain liquidity for the multiparty transactions of the Paper-Based (Checks) Clearinghouse, MASAV, and the Stock Exchange Clearinghouses.

Structure of a ZAHAV participant's account



Zahav system participants

Participants in the ZAHAV system include all the banking corporations in Israel, the Postal Bank, CLS, the clearinghouses (MASAV, the two Stock Exchange Clearinghouses, and the Paper-Based (Checks) Clearinghouse), and the Bank of Israel. The participants who hold a settlement account in the system and are considered participants in the settlement process are the banking corporations, CLS, the Postal Bank, and the Bank of Israel. There are currently 19 such participants. These participants may, like the clearinghouses, send payment orders for settlement in the ZAHAV system. The Bank of Israel has also published principles according to which nonbank entities can join the ZAHAV system.

There are two types of settlement participants: online participants, who are linked directly to the system and can send and receive payment orders, and offline participants who are not directly linked to the system, and who use an online participant as a correspondent for the purpose of transferring and receiving payment orders.

As of 2021, there are 18 online participants and one offline participant in the ZAHAV system.⁹⁷

MASAV

MASAV settles interbank shekel transactions that are not based on paper documents, such as account debit authorizations, salary payments, and tax payments. The banking corporations, the Bank of Israel, the Postal Bank, and organizations that are allowed to send payment instructions directly transfer their transactions to MASAV. Payment orders are received by MASAV throughout the working day and up to six months in advance.

Hours of operation and transactions at MASAV

MASAV carries out two types of orders:

Direct credits - payments originating from organizations (including the government), including salaries, payments to suppliers, tax payments, and more, as well as payments originating from banks that reflect customer activity.

Direct debits - debits originating from organizations and banks (standing orders for billing an account).

The billing and credit instructions originated by organizations⁹⁸ are settled at the end of the transfer date according to the value of that day (T). If they arrive after the time fixed in the system rules, they are settled on the following day (T + 1). Interbank transfers—that is, the results of the settlement between the banks in respect of the orders transferred in MASAV—are cleared and settled in the ZAHAV system on the business day following the day of the transfer (T + 1).

Payment orders that are settled in MASAV are not final, because the beneficiary may return the credit within three business days, and the debited party may return the debit within three business days. Returned payment orders receive the value of the day of their presentation.

Participants transmit payment orders to MASAV during the business day using batch files. Upon receipt of the files, MASAV conducts a presettlement process (netting), calculating the mutual liabilities of the participating banks and creating the net file intended for the final settlement in the ZAHAV system. Before sending the final net amount to the ZAHAV system, a settlement forecast is submitted to the banks, in order to allow them to prepare the liquidity required for the ZAHAV settlement process in advance.

The ZAHAV system has two settlement windows for MASAV. The first one is for the settlement process of the banks and opens at the beginning of the business day (at 10:00), and the second one is for the settlement process of the organizations and opens at the end of the day (at 18:00 on Sundays through Thursdays and at 13:30 on Fridays and holiday eves).

The MASAV participants

As of the end of 2021, there are 31,941 organizations operating in the system, including the banking corporations, the Postal Bank, government ministries, and public institutions, as well as other clearing and settlement organizations.

The Paper-Based (Checks) Clearinghouse

The Paper-Based (Checks) Clearinghouse settles messages issued on paper. The banks present mainly checks, and today they only present and return them digitally. In addition, magnetized collection vouchers are presented in the clearinghouse presents.

In recent years the Bank of Israel has advanced several processes related to the Paper-Based (Checks) Clearinghouse. Among other things, the Digital Settlement of Checks Law was advanced and implemented, and the manual settlement session was cancelled.

Issues related to the activities of the Paper-Based (Checks) Clearinghouse are discussed within the framework of the Paper-Based Clearinghouse Committee, which consists of 14 members representing the Bank of Israel and the banking system. The Committee convenes at least once per quarter, and more often when necessary, in order to deal with issues on its agenda. The Paper-Based (Checks) Clearinghouse's activities are conducted in accordance with an agreement between its members, which is anchored in the Clearinghouse's Rules. The rules regulate its activities and the business and functional relationships among the participants and between them and the operator of the system. The Clearinghouse Rules are published on the Bank of Israel's website, and are updated on a regular basis in accordance with the Committee's decisions.⁹⁹

Hours of operation and activity at the Paper-Based (Checks) Clearinghouse

The Paper-Based (Checks) Clearinghouse operates every banking business day, and also operates on Fridays and on holiday eves (except on the day before Purim, the day before Independence Day, and of the day before the Tisha B'Av) to allow for the handling of messages on Saturday evenings or on the evening after a holiday. The list of business days is published on the Bank of Israel's website and is updated every year.

The banks produce (during the business day or at its end, at 18:30) digital files, which contain information about the messages. At the end of the day each bank sends the files to the other members of the Clearinghouse, and a summary file to the Clearinghouse, showing the total credits to its account against the debits of the other banks. At night, the Clearinghouse performs a presettlement process, and produces a multiparty transaction for the debits and credits of the settlement participants.

On the next morning (T+1) this transaction is sent for settlement in the ZAHAV system during the Paper-Based (Checks) Clearinghouse settlement window, which opens at 09:30. This process allows bank customers to enjoy the difference between the current value of the deposit day (the value of day T) and the value of the day on which the monetary settlement between the banks is recorded in the ZAHAV system, i.e., the next business day (the value of day T+1). Since there is a difference of one business day between the value day recorded for the customer and the value day recorded for the bank, the Bank of Israel conducts an interest settlement between the banks at the end of each calendar month.

Banks are allowed not to honor digital and manual messages presented to them, in accordance with the return reasons set out in the Rules (e.g., lack of coverage or error in details), and they may return them on the business day following their presentation and no later than three business days from the date of presentation. In special cases there are delays in returns, in accordance with the Clearinghouse Rules.

The Paper-Based (Checks) Clearinghouse participants

As of 2021, the Paper-Based (Checks) Clearinghouse has 28 members: the banking corporations in Israel, the Postal Bank, and the Bank of Israel. Some operate directly in the Clearinghouse, and the rest are represented by other participants. In the settlement of digital messages, there are 9 direct participants and 20 representatives, 13 of which are in the Palestinian Authority.

The banks operating in the Palestinian Authority are Clearinghouse members, and all of them are represented by 3 banks in Israel ("Bank Hapoalim", "Bank Discount", and "Mercantile Discount Bank"). The Bank of Israel plays two roles in the Paper-Based (Checks) Clearinghouse: member and operator.

The Stock Exchange Clearinghouses

The Tel Aviv Stock Exchange has two clearinghouses. **The Securities Clearinghouse** settles all securities transactions carried out on and off the stock exchange, provides services related to mutual funds and custody funds, and executes dividend, interest, and other payments. **The MAOF (derivatives) Clearinghouse** settles stock options and futures contracts traded on the stock exchange. The results of the net financial settlement of these clearinghouses are settled through the ZAHAV system.

The principles of the system

The Stock Exchange Clearinghouses (the Tel Aviv Stock Exchange Clearinghouse Ltd. and the MAOF Clearinghouse Ltd.) settle all transactions made on the stock exchange and in MTS (the trading arena of the primary market makers). That is, they transfer the securities from the seller to the buyer, and the monetary consideration from the buyer to the seller. In order to reduce the risk to buyers and sellers, the Clearinghouse serves as a central counterparty (CCP), thereby taking on the risk that one of the parties will not complete its share of the transaction. All securities transactions are settled at the Clearinghouse on day T+1, and the money and the securities are transferred between the buyer and the seller at the same time (DVP, Delivery Versus Payment), as is customary in the most advanced clearinghouses in the world. The Stock Exchange Clearinghouses also provide securities custodial services, i.e., registration of securities in the name of the members of the stock exchange through the listing companies. The Stock Exchange Clearinghouse provides securities settlement services, and the MAOF Clearinghouse provides derivatives settlement services.

Hours of operation of the stock exchange clearing houses and settlement in the ZAHAV system

Trading on the stock exchange takes place on Sundays between the hours of 09:00 and 16:00, and on Mondays to Thursdays between the hours of 09:00 and 17:35. The Stock Exchange Clearinghouses transmit two types of payment orders to the ZAHAV system:

Two-party orders – These reflect transactions made outside the stock exchange. These transactions can be settled in the ZAHAV system throughout the business day, from 07:45 until the end of the Clearinghouse activity in the ZAHAV system at 19:30.

Multi-party orders – These reflect the net calculation of the banks participating in the settlement process. Each of the Stock Exchange Clearinghouses calculates each bank's net amount of trading activity and the various payments, and forwards the results to the ZAHAV system for debiting and crediting the banks' accounts at the Bank of Israel. These orders are settled in the ZAHAV system

through three settlement windows, at 08:50, 15:45, and 17:45. On Fridays and holiday eves, there are two clearing windows, at 08:50 and 12:30.

Stock Exchange Clearinghouse Participants

The stock exchange consists of banks and nonbank entities, through which any investor can trade on the stock exchange. Trading takes place between the various members of the stock exchange, and these transmit buy and sell orders for their customers to the stock exchange.

As of the end of 2021, the Stock Exchange had 26 members, including 17 banks, the Bank of Israel, and 8 nonbank members.

Most stock exchange members are also members of the Securities Clearinghouse.

The Securities Clearinghouse has 17 members—the Bank of Israel, 11 banks, and 5 nonbank entities.

The MAOF (derivatives) Clearinghouse has 9 bank members, and one that is not a bank.

The International Conversion Clearinghouse (CLS)

The ZAHAV system has opened up new possibilities for Israel at the international level, the most important of which is the possibility of joining the International Currency Exchange (CLS). The immediate consequence of this was the definition of CLS as a participant in the ZAHAV system. An account was opened for it in the system, through which CLS payments are transferred.

The CLS Principles

CLS activity is similar to that of the Real-Time Gross Settlement (RTGS-ZAHAV) system, but instead of settlement in a single currency, CLS performs settlement and conversion in several currencies simultaneously. CLS's regular activities are carried out by the settlement members. The member provides its customers with settlement services at CLS. A bank wishing to become a clearinghouse member is required to hold CLS shares and meet various operational and financial requirements. In order to have the shekel join as a qualified currency, CLS required, among other things, the appointment of clearinghouse members, as well as liquidity providers whose role is to assist in providing shekel liquidity when necessary.¹⁰⁰

CLS's mechanism of supplying liquidity through liquidity providers is such that if the system does not have enough liquidity to settle transactions in a particular currency, it may contact the liquidity provider and demand that it provide the missing liquidity in that currency, in exchange for transferring other currencies to its account. It is essentially the liquidity supplier's obligation to make a swap transaction for a period of one night. It should be noted that since the shekel joined the settlement at CLS, the liquidity supply arrangement has never been activated.

It should be emphasized that conversion activity between the shekel and the other currencies that are settled at CLS is conducted in Israel mainly through CLS, which reduces the settlement risks in conversion transactions.

Hours of operation and settlement transactions in the ZAHAV system

In accordance with the arrangement with CLS, its activities in the ZAHAV system are conducted as follows: The banks that carry out activities vis-à-vis CLS are required to transfer the amounts to it at three points in time during the day (09:00, 10:00, and 11:00), and must transfer the full amounts up until the last point. Starting at 11:00, CLS returns the amounts to the banks. At the end of the CLS day of activity with the banks—13:00 at the latest—the CLS account in the ZAHAV system is reset to zero.

CLS activity participants in the ZAHAV system

The participants in CLS activity in the ZAHAV system are the settlement participants and liquidity providers.

SHVA

The Automatic Banking Services Ltd. Company (SHVA) was founded in 1979 as a joint services company of the five large banks: Bank Leumi, Bank Hapoalim, Discount Bank, United Mizrahi Bank (now Mizrahi-Tefahot), and First International Bank. The company is the communications junction and router of transactions between the credit companies and point of sale (POS) credit terminals or a payment system based on the "ASHRAIT" software installed at merchants in Israel for the purpose of operating and honoring credit cards issued in Israel and abroad. The company manages the ongoing communication between point of sale devices and the credit companies for the purpose of approving direct contact transactions and transferring centralized transactions to the credit companies on a daily basis.

The SHVA system receives daily broadcasts of the transactions from the merchants and provides the merchant terminals with updated information from the center. The transactions are then processed and sorted for transfer to each credit card company. SHVA is subject to Supervision by the Supervisor of Payment Systems, as it operates a controlled payment system in accordance with the Payment Systems Law, 5768–2008.

SHVA operates in a number of areas:

Management and operation of the interbank switching system—the ATM network (cash withdrawals, deposits, and more)

The ATM network is a national network common to banks, which allows a customer from one bank to withdraw money from ATMs belonging to other banks in a secure manner that is identical to a withdrawal from ATMs belonging to the customer's bank.¹⁰¹ As part of the operation of the network, SHVA provides several services: checking the cards, routing the request for approval, account balance inquiries, and stand-in service.

SHVA operates the ATM switch and performs interbank switching of all ATM transactions made from an ATM of a bank other than the bank that issued the customer's payment card.¹⁰² The communication in the ATM switch is based on a protocol written and managed by SHVA for the segment between the settling bank and the switch.

Management and operation of the national credit card network – the "ASHRAIT" system (payment card transactions)

SHVA manages the "Ashrait" national payment card communication network, and merchants' payment terminals are connected to it directly. The network supports all types of payment card transaction types and most payment cards in the world: Visa, MasterCard, American Express, JCB, Discover ("Diners Club"), and private label cards.

As part of operating "ASHRAIT", SHVA provides several services:

Transaction approval - SHVA serves as a junction (switch) for routing requests for approval of local transactions. The company receives the request for approval of a transaction from the merchant, identifies the acquirer and the issuer, forwards the request for the issuer's approval and returns the answer received to the merchant. In most cases the transaction is approved in real time. Shva forwards requests for approval of tourist transactions to the relevant acquirer, which in turn forwards them to the issuing bank for approval through the switch of the relevant international organization ("Visa" or "MasterCard"). The answer is returned to the merchant through SHVA.

Collection of transactions - SHVA collects all transactions from the merchant by transmitting batch files, sorts the transmissions according to the acquirer, conducts tests¹⁰³ and processing for the acquirer, and at the end transfers files for settlement by MASAV.

Stand-In Service - SHVA responds on behalf of the issuer to requests for approval of transactions, in accordance with the definitions and permissions set by each issuer.

Additional services - SHVA manages the parameters and vectors integrated in the merchants' terminals and enables acquirers and issuers to manage their risks: the interface to customer membership and loyalty clubs, which handles discounts given at the time of payment based on data received from issuers; the acquirer transfers at the businesses; and the blocked cards file.

SHVA manages a settlement interface between the credit card companies in accordance with predefined and agreed rules. The settlement interface centralizes the activities of each acquirer and issuer, and at the end of processing, SHVA produces presettlement reports. The interface maintains a central database for clarification purposes, making it possible to manage a simple accounting control system. SHVA has developed a unique protocol for the payment system in Israel ("ASHRAIT 96"), in accordance with the requirements of the credit card companies, in order to define, unify, and manage the method of working with the payment cards of the various companies. The merchants' terminals contain software that the manufacturers wrote according to the specification built by SHVA, and they are usable after SHVA has checked and confirmed that the software is suitable and conforms the specification. SHVA has completed the adaptation of the system to the EMV standard. This allows all credit cards in Israel and the associated infrastructure to make even more secure transactions.

The SHVA system participants

According to the Banking (Licensing) Law, 5741–1981 and according to the operating license granted by the Supervisor of Banks to SHVA, the company may provide ATM switching services to any person. The "Ashrait" system switch and the settlement interface may be connected to acquirers and issuers, and in practice the three credit card companies ("CAL", "Max" and "Isracard") are connected to it as acquirers and issuers.

Communication systems

The payment systems transfer data among them through the communication interfaces and dedicated applications listed below:

SWIFT - The Bank of Israel began using SWIFT in 1983 to (a) provide the government with banking services in foreign currency—carry out its payment instructions and receive receipts for it; (b) provide banks with banking services in foreign currency—make transfers to and from abroad, from and to their foreign currency accounts at the Bank of Israel; and (c) send post-transaction instructions and approvals to external parties. Since 2007, the year in which the ZAHAV system began operating, SWIFT serves as a platform for transmitting payment instruction datas and other messages between the ZAHAV system and its participants (the banking corporations, the Postal Bank, CLS, and the stock exchange) and between the banking corporations and the Stock Exchange Clearinghouses.

SHVA - SHVA manages the communication network between the credit card companies and merchants' payment terminals. This network supports most payment cards in the world and all types of payment card transactions. The communication network is based on a unique protocol for the payment system in Israel ("ASHRAIT"), which was developed by SHVA in accordance with the credit card companies' requirements in order to define, unify, and manage the method of working with the different cards of the various companies. The merchants' payment terminals contain software written by the manufacturers in accordance with the specification documents of the "AHSRAIT" protocol.

Glossary of Terms

Means of Payment I	Any financial instrument that allows its holder to transfer funds or pay for services and assets. Common means of payment are cash, checks, direct debits, direct credits, and payment cards.
Credit I	The right to purchase or use goods and services, with a commitment to pay at a later date.
Daily credit I	Credit provided for one business day. Also called "daily overdraft" or "intraday credit".
Digital wallet I	An electronic device that allows a person to store or accumulate other means of payment, and is intended for payment transfers and the purchase of services and assets between two parties.
Collateral I	Tangible property pledged to the bank and used to secure loan repayment. Collateral can be liquid in nature so that it can be easily realized—such as securities traded on the stock exchange, bank deposits, accounts receivable, and other types of property (tradable collateral)—or real estate (nontradable collateral). The collateral becomes the property of the lender if the borrower does not meet the terms of the loan.
Money laundering I	Financial transactions that aim to hide the source of the money, usually because the source is illegal, or because they did not pay tax on the money. The "prohibition of money laundering" process returns the money to the lawful system.
Monetary loan I	A loan that the Bank of Israel provides to banks for a period of one day (daily tender) or one week (weekly tender), using a graduated tender on the interest rate.
The Monetary Aggregate (M1) I	Total cash held by the public and total demand deposits by the public in banks. This definition does not include the balances deposited in the Bank of Israel or the balances stored in safe deposit boxes at the banks.
Business continuity in a payment system I	Arrangements in a payment system that aim to ensure that it meets agreed service levels even in the event that one or more of its components fails, or in the event that an exceptional external event affects it. This term includes both preventive measures and arrangements for dealing with unexpected events.
Acquirer I	A party that enables a merchant to honor payment card transactions, and the party that transfers the request for approval of the charge to the issuer, and the party that ensures the payment to the merchant if the request is approved.
Credit card companies I	There are three companies in Israel that issue and settle payment cards: "Isracard", "Max" and "CAL". The companies issue and settle international payment cards according to licenses granted to them by the relevant international organizations.

Glossary of Terms

Authorized debits (standing order)	A method of payments in which the beneficiary collects money from the payer through a bank. The process debits the payer's bank account and credits the receiver's account by virtue of a debit presented by the beneficiary and by virtue of an authorization given by the payer.
Value date	The day on which the account of a participant in the payment and settlement systems or the account of the customer is credited or debited.
Clearinghouse	A central place or a central processing mechanism through which financial institutions agree to exchange payment instructions or other financial obligations. The institutions settle the exchanged items among themselves at the determined time.
Controlled system	According to the Payment Systems Law, when a payment system is declared controlled, it is placed under the Bank of Israel's supervision. A system will be defined as controlled when its activity is essential to the entire payments system in the economy, and there is a concern that its improper, inefficient, or unreliable activity will cripple the payments system.
Designated controlled system	In accordance with the Payment Systems Law, when a payment system is declared as a designated controlled system, it is placed under the Bank of Israel's supervision, and the payments settled in it are final. The system will be defined as a designated controlled system when its activity is material to monetary and financial stability in Israel, there is a concern that its improper, inefficient, or unreliable activity will cripple the payments system, and the finality of payments and their protection against bankruptcy is important.
Liquidity	The ability of a business entity to meet current liabilities out of its total current assets (cash, tradable securities, and so forth).
Intraday liquidity	The liquidity available during a business day.
SWIFT	The communication system of the international organization SWIFT (Society for Worldwide Interbank Financial Telecommunication), which enables the secure sending and receiving of dedicated digital messages between financial institutions around the world.
Settlement	An action that discharges liabilities between two or more parties, relating to transfers of funds, securities, or other financial assets.
Net settlement	Settlement of a number of liabilities or transfers between or within a group of counterparties on a net basis.
Batch processing in payment systems	Accumulation of a set of payment orders and their joint processing at a specific point in time.

Acronyms and Abbreviations

ACH	AUTOMATED CLEARINGHOUSE ¹⁰⁴
ATM	AUTOMATED TELLER MACHINE
BIS	BANK FOR INTERNATIONAL SETTLEMENTS
CCP	CENTRAL COUNTERPARTY
CET	CENTRAL EUROPEAN TIME
CLS	CONTINUOUS LINKED SETTLEMENT
CVM	CARDHOLDER VERIFICATION METHOD LIMIT
CPMI	COMMITTEE ON PAYMENT AND MARKET INFRASTRUCTURES
CSD	CENTRAL SECURITIES DEPOSITORY
DVP	DELIVERY VERSUS PAYMENT
EMV	EUROPAY, MASTERCARD, AND VISA
FIFO	FIRST-IN-FIRST-OUT
FMI	FINANCIAL MARKET INFRASTRUCTURE
FSAP	FINANCIAL SECTOR ASSESSMENT PROGRAM
FX	FOREIGN EXCHANGE
IBAN	INTERNATIONAL BANK ACCOUNT NUMBER
ICS	INTRADAY CREDIT SYSTEM
IOSCO	INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS
LSA	LOSS SHARING ARRANGEMENT
NFC	NEAR-FIELD COMMUNICATION
PFMI	PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES
POS	POINT OF SALE
PVP	PAYMENT VERSUS PAYMENT
RTGS	REAL-TIME GROSS SETTLEMENT ¹⁰⁵
SIPS	SYSTEMICALLY IMPORTANT PAYMENT SYSTEMS
SSS	SECURITIES SETTLEMENT SYSTEM
SWIFT	SOCIETY FOR WORLDWIDE INTERBANK FINANCIAL TELECOMMUNICATION

¹ Cash withdrawals from ATMs.

² Business intelligence: An area of information technology that deals with building systems that help an organization generate significant business information from all the data it collects.

³ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-steering-committee-on-the-potential-issuance-of-a-digital-shekel-publishes-a-report-to-the-public>

⁴ Digital wallet - an electronic device that allows a person to make e-commerce transactions. The digital wallet may include purchasing items online using a computer or using a smartphone to purchase a product in a physical store.

⁵ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-publishes-a-policy-paper-on-bank-payment-application-activity-at-merchants>

⁶ Further results of the consumer survey are presented in the trends section.

⁷ <https://www.gov.il/he/departments/publications/reports/p2pmarketresearch> (in Hebrew).

⁸ The indirect effect that a user of a particular product or service has on the value of that product to other users.

⁹ Excluding group transfers and business transfers.

¹⁰ <https://www.boi.org.il/en/PaymentSystem/Pages/MobilePaymntInfo.aspx>

¹¹ The EMV (Europay, MasterCard, Visa) standard is a standard that secures credit card transactions.

¹² <https://www.boi.org.il/media/tgtckct2/h2669.pdf> (in Hebrew).

¹³ Details of the program and assistance can be found at: https://www.sba.org.il/hb/landingsSite/Pages/km3.aspx?gclid=CjwKCAiAjeSABhAPEiwAqfxURSICEfQk2F7ubQ8Q6rRa6U6Y7pE7cYy5Xy95Hw_E_Y6_ (in Hebrew)

¹⁴ Please see the discussion in the section on development of payment applications.

¹⁵ The results of the survey are detailed in the section on trends.

¹⁶ <https://www.boi.org.il/en/communication-and-publications/press-releases/public-consultation-on-the-establishment-of-an-infrastructure-for-immediate-payment-in-israel>

¹⁷ <https://www.boi.org.il/en/communication-and-publications/press-releases/review-of-the-promotion-of-an-immediate-payment-infrastructure-in-israel-s-payment-system>

¹⁸ <https://www.boi.org.il/en/communication-and-publications/press-releases/another-step-in-advancing-competition-in-the-payments-field-opening-access-to-the-payments-systems-to-new-participants>

¹⁹ Formerly Leumi Card.

²⁰ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-acts-to-increase-the-use-of-the-zahav-rtgs-system>

²¹ In April, the BIS published the Principles for Financial Market Infrastructures ("New Principles"). The document sets out twenty-four international principles that will apply to all financial infrastructures. In October 2014, as part of its role in supervising payment systems, the Bank of Israel decided to adopt and apply the new principles to payment systems which were declared as "audited and controlled" and "designated audited and controlled" payment systems, in accordance with the Payment Systems Law, 5768-2008, in order to ensure their efficiency and their stableness.

²² <https://www.boi.org.il/en/communication-and-publications/press-releases/another-step-in-advancing-competition-in-the-payments-field-opening-access-to-the-payments-systems-to-new-participants>

²³ <https://www.boi.org.il/media/r1adyo5s/finalreport.pdf>

²⁴ In March 2018, the Knesset approved the Reducing the Use of Cash Law, 5778-2018. https://www.nevo.co.il/law_html/Law01/501_805.htm (in Hebrew).

²⁵ https://www.gov.il/en/departments/ministry_of_justice/govil-landing-page

²⁶ The restrictions do not apply to transactions made before January 1, 2019, even if the spread of payment installments for those transactions continued beyond that date. The law also stipulates exceptions for certain sectors, entities, and types of transactions.

²⁷ The fees on endorsed checks deposited for holding between April 15, 2019 and June 30, 2019 were reduced in accordance with a banking order issued by the Supervisor of Banks, which allowed individuals and small businesses to deposit endorsed checks (of any amount) for a limited period with a supervised fee of only NIS 2, in order to avoid being exposed to the banks' restrictions regarding checks under the Reducing the Use of Cash Law.

²⁸ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-lowers-the-fee-for-depositing-an-endorsed-post-dated-check-for-holding-to-a-maximum-of-nis-2-and-calls-on-the-public-to-deposit-such-checks>

²⁹ <https://35w6.short.gy/ThUIHP> (in Hebrew).

³⁰ A seminar on the Cash Law at the Bank of Israel Visitors Center can be viewed at: <https://www.youtube.com/watch?v=JSULhMROFuE> (in Hebrew).

³¹ Ronit Chitayate, Head of the Payment Systems Division, speaking to the economic conference of the Institute of Certified Public Accountants in Israel: <https://www.youtube.com/watch?v=ui5VUW0wTaQ> (in Hebrew).

³² Notice of granting a merchant acquirer's license to Tranzila Ltd.: <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-grants-a-license-to-another-new-acquirer-today>
Notice of granting a clearing license to Cardcom Ltd.: <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-grants-a-license-to-another-new-acquirer-today>

³³ The European directive to regulate payment services and payment service providers throughout the EU and the European Economic Area (EEA).

³⁴ Examples of services that customers will be able to receive in the world of Open Banking include consolidation of banking information; financial management advice; comparing costs of banking products; value propositions relating to banking products such as deposits and loans; new means of payment; and more.

³⁵ NextGenPSD2 XS2A Framework - an open API standard for Open Banking, formulated in Europe by the "Berlin Group".

³⁶ <https://www.boi.org.il/roles/supervisionregulation/open-banking> (in Hebrew).

³⁷ <https://switchbank.org.il> (in Hebrew).

³⁸ As part of the enactment of the Economic Plan Law, 5778–2018.

³⁹ The standard is expected to be implemented in the ZAHAV system in Israel in November 2023.

⁴⁰ SWIFT is an international clearinghouse through which information passes between different financial institutions.

⁴¹ QR code ("Kodar" in Hebrew - Quick Response Code) is a two-dimensional barcode, in which textual information is encoded in a graphic configuration.

⁴² <https://www.boi.org.il/media/qrjdgvyvs/qr-code-payments-in-israel-heb.pdf> (in Hebrew).

⁴³ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-increases-the-amount-limitation-for-the-deposit-of-a-single-check-via-mobile-device-from-nis-20-000-to-nis-50-000>

⁴⁴ <https://35w6.short.gy/ZZbu5e> (in Hebrew), which includes a consolidation of information on the presentation of the interbank and intrabank checks.

⁴⁵ Data on payment card transactions for January 2021 (which do not appear in this document) show that the level of transactions at the end of the third lockdown was the same as their level in January 2019. This means that the level of transactions relative to the data for those months in previous years increased.

⁴⁶ The first lockdown took place from March 14, 2020 to May 4, 2020, and the second lockdown was from September 18, 2020 to October 17, 2020.

⁴⁷ Card-present transaction: A transaction made with a payment card physically present at the merchant's terminal.

Card-not-present transaction: A transaction made without the physical presence of a payment card at the merchant's terminal. This group includes telephone transactions and transactions at online purchasing terminals on the Internet.

⁴⁸ An electronic central bank liability, which can be used to execute transactions and preserve value.

⁴⁹ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-published-a-summary-of-the-work-of-the-team-to-examine-central-bank-digital-currency-cbdc>

⁵⁰ <https://www.boi.org.il/en/communication-and-publications/press-releases/the-bank-of-israel-steering-committee-on-the-potential-issuance-of-a-digital-shekel-publishes-a-report-to-the-public>

⁵¹ Market share of the five most active institutions.

⁵² The level of availability is estimated by the number of hours in which the system was available out of the total hours of operation in the reviewed year.

⁵³ Availability refers to the activity of the settlement system itself, excluding the communication side.

⁵⁴ The provision applies to customers (individuals and small businesses) as defined in section 9i(f) of the Banking (Service to the Customer) Law, 5741–1981.

⁵⁵ Mexican peso, Canadian dollar, British pound, Israeli shekel, Japanese yen, South Korean won, Danish krone, euro, US dollar, Singapore dollar, Norwegian krone, Australian dollar, New Zealand dollar, South African rand, Swedish krona, Swiss franc, Hungarian forint, Hong Kong dollar, Chilean peso.

⁵⁶ In 2017, all manual settlement activity moved to digital settlement in the ZAHAV system.

⁵⁷ More than 90 percent of manual debit amounts were due to the settlement of funds from the issuance of corporate securities, and these were transferred on January 1, 2017 from manual settlement to electronic settlement in the ZAHAV system.

⁵⁸ Electronic credits are also made in the ZAHAV system.

⁵⁹ Except for the Palestinian banks, which are represented by two Israeli banks.

⁶⁰ In addition to cash held by the public, the value of turnover also includes cash held by banking corporations in vaults, and cash held by nonresidents.

⁶¹ Unlike the net values that are settled through the Paper-Based Clearinghouse, where only interbank checks are settled. Please see Chapter 1—Section 2.3.1 and Table 2.

⁶² Including intrabank checks.

⁶³ Banking (Service to the Customer) (Date of Credit and Debit of Checks) Directives, 5752–1992, Section 3(a).

⁶⁴ Endorsement of a check—When party A issues a check that is not limited to the payee only, the check can be transferred from hand to hand (from payee to payee) by the payee (recipient of the check) signing the back of the check, without any restriction.

⁶⁵ Banking (Service to the Customer) Law, 5741–1981, Section 5c.

⁶⁶ As of March 2021.

⁶⁷ Presentation of checks via cell phones "for the beneficiary only" and up to NIS 10,000 per check.

⁶⁸ Presentation of a check via a cell phone also reduces the cost of the presentation of the check to the customer by up to 75 percent (the cost of presenting a check through a direct channel as opposed to presenting it through a teller).

⁶⁹ As of November 2021.

⁷⁰ For private customers, in accordance with the amount of the limitation in Proper Conduct of Banking Business Directive 357, Section 25(c), Subsection (2). Requests of higher values will be forwarded to a clerk for approval.

⁷¹ The IBAN number serves as a unique identifier of the customer's account, and consists of the bank number, the branch number, and the account number, among other things.

⁷² SWIFT has held the authority for IBAN registration since 2007. As of the end of 2017, 82 countries are registered in the IBAN Registry.

⁷³ <https://www.boi.org.il/en/information-and-service-to-the-public/tools-and-calculators/iban>

⁷⁴ The agreement is based on Section 7 of the Payment Cards Law, 5746–1986.

⁷⁵ With bank cards, the debit is reflected in the customer's account.

⁷⁶ According to Proper Conduct of Banking Business Directive No. 470, in immediate debit transactions, the issuer must transfer the funds to the acquirer within a maximum of two business days from the date of the transaction, and the acquirer must transfer the transaction money to the business within three business days, at the most, from the date of transmission of the transaction. In a transaction made with an immediate debit card, the customer will be debited approximately on the day that the transaction is transmitted.

⁷⁷ The cost to the customer depends on a variety of factors, the main one being the cross-commission formula.

⁷⁸ Some can also be used to withdraw cash from ATMs, while others cannot be used for it.

⁷⁹ Some cards can be used to withdraw cash from ATMs, while others cannot.

⁸⁰ EMV—Europay, MasterCard, and Visa—A collection of specifications developed by international credit card organizations in order to provide a uniform and secure format for payment using payment cards in "card-present" transactions.

⁸¹ According to the Prohibition of Money Laundering Law, 5760—2000, a currency exchange service provider provides the following services: conversion of the currency of one country into the currency of another country; sale or redemption of traveler's checks in any type of currency; receipt of financial assets in one country against the provision of financial assets in another country (financial assets are cash, traveler's checks, checks, bills of exchange, promissory notes, tradable securities, credit, or monetary deposits); exchange of banknotes; and discounting of checks, bills of exchange, and promissory notes.

⁸² SWIFT - Society for Worldwide Interbank Financial Telecommunication; GMT - Global Money Transfers.

⁸³ Financial Action Task Force.

⁸⁴ <http://www.boi.org.il/he/BankingSupervision/DraftsFromTheSupervisorOfBanks/DocLib/11093.pdf> (in Hebrew).

⁸⁵ <https://35w6.short.gy/Kdiuva> (in Hebrew)

⁸⁶ By virtue of the Payment Systems Law, MASAV and SHVA are also subject to Payment Systems Oversight.

⁸⁷ Isracard Group, which includes "Premium Express" and "Europay" (Eurocard); CAL, which includes "Diner's Club"; and Max-IT Finance.

⁸⁸ "Cardcom Settlements" and "Tranzilla".

⁸⁹ <http://www.bis.org/publ/cpss101a.pdf>

⁹⁰ In addition to the aspects listed, the document expands the responsibilities of the entities that regulate and supervise the financial infrastructure (the central bank, the financial market supervisors, and other supervisory authorities) in implementing the principles.

⁹¹ <https://www.boi.org.il/en/economic-roles/payment-systems/clearing-house-rules>

⁹² <https://www.masav.co.il/about>

⁹³ As of November 2021. <https://www.ibank.org.il/members>

⁹⁴ As defined in the Banking (Service to the Customer) (Date of Credit and Debit of Checks) Directives, 5752–1992.

⁹⁵ On Fridays and on holiday eves, the stock exchange has two clearing windows.

⁹⁶ Government bonds, according to a list established and updated by the Bank of Israel from time to time.

⁹⁷ An online participant is a participant who has the technological infrastructure to connect directly to the ZAHAV system. An offline participant does not have the infrastructure, and is supported by the infrastructure of an online participant.

⁹⁸ The different types of activities have different cut-off hours.

⁹⁹ The Clearinghouse Rules appear (in Hebrew) at:

Footnotes

<https://www.boi.org.il/en/economic-roles/payment-systems/clearing-house-rules>

¹⁰⁰ There are two clearinghouse members and three liquidity suppliers in Israel.

¹⁰¹ In the past, the company operated the ATMs it owns. By order of the Antitrust Commissioner, it sold that activity to a private company, a process completed in 2014.

¹⁰² ON-US transactions (withdrawals from an ATM of the bank that issued the card) and tourist transactions do not pass through SHVA's ATM switch.

¹⁰³ For example - if the data is complete and has no errors, or if there are no duplicate broadcasts.

¹⁰⁴ In Israel, the automatic clearinghouse is MASAV (Hebrew acronym for Bank Clearing Center).

¹⁰⁵ In Israel, the RTGS clearinghouse is called the ZAHAV system (Hebrew acronym for Real-Time Credits and Transfers).

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