

# Final Report

## The Committee for Promoting Use of Advanced Means of Payment in Israel

June  
2017



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## 1. Forward

The payment system in Israel has been in constant flux over recent years, as a result of the implementation of various reforms, technological developments and global developments. Such change leads, *inter alia*, to promotion of ventures involving advanced means of payment by the banking system in Israel, as well as by private companies.

The Joint Committee on Advanced Means of Payment was established in March 2014, in order to regulate the advanced means of payment area in aspects of information security, AML (anti-money laundering) and terrorism financing, business continuity, competition, stability and efficiency—so as to encourage the public in Israel to expand the use of advanced means of payment. The manner of such regulation is very important and therefore the Committee was required to refer to several key aspects: The outline to promote use of advanced means of payment, the frequent technological changes that impact on the use of advanced means of payment, securing transactions involving advanced means of payment with emphasis on information security, cyber risk and fraud as well as consumer protection.

The Committee considers that use of advanced means of payment as part of the payment system in Israel should be promoted by integrated regulation of the legal, technology and consumer infrastructures. This includes, *inter alia*, regulation of the legal basis for activities involving advanced means of payment and setting up a new retail payment system for rapid settlement of payments made using advanced means of payment, including a secure national communication infrastructure.

In November 2015, the Committee published an interim report that was formulated after an extensive examination of promotion of using advanced means of payment in Israel. Beginning from the date of publication of the Interim Report, the Committee worked to advance the main recommendations published in the report and is currently publishing the final report on its activities. Some of the Committee's recommendations were promoted successfully and others are in various stages of implementation. I am confident that the comprehensive and fundamental work of the Committee will serve as a base for advancing Israel's payment system in coming years.

I wish to thank all those who have appeared before the Committee and contributed of their experience. I am especially thankful to my colleagues, Committee members from the Prime Minister's Office, Anti-Money Laundering and Terror Financing Authority, Israel Tax Authority, Ministry of Justice, Israel Antitrust Authority, National Cyber Bureau, National Information Security Authority, State Attorney's Office, Israeli Police, the Ministry of Finance and the Bank of Israel for the professional work—they have all invested significant time and effort in compiling the Committee's final recommendations. Special thanks to the Secretary of the Committee, Nir Levy, who worked with great dedication to focusing the Committee's discussions and for his marked contribution to writing this final report.

Sincerely,  
Irit Mendelson, Committee Chair  
Director of the Accounting, Payment and Settlement Systems Department  
Bank of Israel

## 2. Executive summary

Recommendations made by the Committee on Reducing Use of Cash in the Israeli Economy, designed to reduce the shadow economy in Israel ("the **Locker Committee**") indicated the need for promoting advanced means of payment in Israel, as an alternative to paper-based means of payment (cash and checks).

The Joint Committee on Advanced Means of Payment was established in March 2014, in order to regulate the area of advanced means of payment (hereinafter: "the **Committee**"). The Committee focused on examining the promotion of use of advanced means of payment, which would contribute to increased competition, efficiency and security of the payment system in Israel. The Committee reviewed advanced means of payment in Israel and worldwide, including digital debit payment instruction (at times termed digital check), electronic wallet, Mobile payments and online payments (Business to Business (B2B), Business to Person (B2P), Person to Business (P2B) and Person to Person (P2P)), with emphasis on the risks involved in the use thereof, required regulation and infrastructure. It should be noted that advanced means of payment do not necessarily exist separately from currently existing means of payment—cash loading, bank transfers, direct debit or debit cards—but in many cases they are based on such currently existing means and make use of existing infrastructure and payment systems in Israel. Currently, most advanced payments in Israel are based on payment cards; however, the Committee envisages the development of a range of payment options, including transfer of monetary value through new entities that would provide payment services, payments made directly from bank accounts as well as development of other payment solutions.

Use of advanced means of payment offers multiple advantages, including: Reduced use of cash and reduction of the shadow economy in Israel; increased competition through introduction of new entities, who would provide payment services; creating a situation where an entity that has developed an advanced means of payment has a competitive advantage over other entities in the payment system; reduced transaction costs compared to other means of payment; documentation of transactions involving the means of payment; convenient use for customers—both payer and payee—and availability to customers. Furthermore, use of advanced means of payment would allow for digital monitoring of transactions, which would be documented in the financial system and in payment systems. In order to benefit from advantages of advanced means of payment, the Committee recommends, *inter alia*, to set up an advanced national settlement infrastructure, to include secure communications for retail payments and to regulate these means of payment and payment services.

Note that along with the aforementioned advantages, advanced means of payment also incorporate various legal aspects, including consumer protection and various risk factors, primarily cyber risk and AML and terrorism financing risk. The typical flexibility of advanced means of payment and use of advanced computer platforms may expose users to impersonation, abuse, fraud, and services or products not rendered, by various entities.

Furthermore, the multitude of methods for payment transfer, along with competition for customers, may impact the level of security of activity using such means of payment. The Bank of Israel and relevant entities are considering and monitoring such risk factors and are prepared to address them.

In November 2015, the Committee published an Interim Report which reviewed its actions<sup>1</sup> and the areas it emphasized in the course of its work. Among other things, the Committee was required to refer to payment systems, payment service providers and customers (both businesses and individuals) from various aspects, including: (a) Technology aspects: Absence of a settlement system that consolidates approvals of transactions made using advanced means of payment, a system to enable settlement of all advanced means of payment that are, and that will be, in operation in Israel. Absence of secure communication infrastructure – from the end customer to the payment system – for making payments using advanced means of payment; (b) Legal aspects: Adapting the legal framework to operation of advanced means of payment, including generally accepted international standards of AML and terrorism financing prohibitions, consumer protection, obligations and responsibilities of all entities involved in the transaction execution chain using advanced means of payment; (c) aspects of consumer education and creating consumer confidence to promote use of more innovative, less familiar technology than currently existing means of payment. In addition, after publication of the Interim Report, various work teams were set up for the implementation of the Interim Report's recommendations, and the Committee held several hearings with stakeholders in the payment system, with the understanding of the importance of the dialogue with the various entities and understanding market needs. The results of the work teams' efforts, the discussions and the hearings that were held, helped in formulating the final recommendations of the Committee to Promote Use of Advanced Means of Payment in Israel.

In accordance with the foregoing, the Committee considers that use of advanced means of payment as part of the payment system in Israel should be promoted by combined regulation of the legal, technology and consumer infrastructure. Therefore, the Committee recommends as follows:

1. **Set up central settlement infrastructure and secure national communication infrastructure for making payments using advanced means of payment.** The Committee considers that a new retail payment system should be created for fast settlement of payments using advanced means of payment, concurrently with creation of secure communication infrastructure to promote the use of such means of payment. With this recommendation, the Committee is articulating the future of the payment system in Israel. In accordance with the recommendation in the Committee's Interim Report, in January 2016 an internal work team at the Bank of Israel was set up, which examined the issue with an emphasis on learning and surveying fast retail payment systems worldwide, learning the Israeli market needs from a fast retail payment

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<sup>1</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/291115-ElectronicMeans.aspx>

system in Israel, and outlining the various options for advancing the recommendation. In parallel, the National Cyber Bureau continued to progress with the “secure transaction” project—a national infrastructure for carrying out secure transactions via the Internet.

2. **Formulate a legislative memorandum for the regulation of payment services, payment account and settlement and issuance services.** The Committee proposes comprehensive uniform regulation of all services provided by payment service providers. Such regulation should include and refer to, *inter alia*, consumer aspects, mandatory compliance by payment service providers with AML and terror financing directives, mandatory compliance with information security standards and other requirements. In accordance with the recommendation of the Committee’s Interim Report, in March 2016 a subcommittee was set up, led by the Bank of Israel with participation from the Ministry of Justice, Ministry of Finance and Israel Antitrust Authority. In the course of the subcommittee’s discussions, principles for regulating payment services were formulated. These were based on, among other things, European regulation regarding payment services—the Payment Services Directive (PSD)—adjusted for the domestic market. The principles document that was compiled was published for public comments in October 2016<sup>2</sup>, and it serves as a basis for writing a draft legal memorandum of the Payment Systems Law currently being formulated.
3. **Bring current legislation in line with activity involving advanced means of payment.** The Committee considers that constant review and adaptation of existing legislation in Israel is required, with reference to three key elements: users of advanced means of payment, financial service providers and payment systems. In this regard, legislative amendments supporting regulation of AML and terror financing aspects of payment service providers’ operations should be promoted, in conformity with accepted international standards published by the Financial Action Task Force (FATF).
4. **Promote Point of Sale (POS) infrastructure to allow for contactless transactions.** The Committee considers that the expected changes in the payment system in Israel due to implementation of the outline of market transition to the EMV standard provide an opportunity to promote use of advanced means of payment by creating POS infrastructure to support contactless transactions and multiple applications. In accordance with the recommendation of the Committee’s Interim Report, in May 2016 the Banking Supervision Department published Proper Conduct of Banking Business Directive 472—Merchant Acquirers and Acquiring Payment Card Transactions<sup>3</sup>, which refers to, among other things, the requirement to support contactless transactions in new terminal.

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<sup>2</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/5-10-16.aspx> (Hebrew version)

<sup>3</sup> <http://www.boi.org.il/he/BankingSupervision/LettersAndCircularsSupervisorOfBanks/HozSup/h2498.pdf> (Hebrew version)

5. **Increase the efficiency of the transaction execution chain for digitaldebit payment instructions.** The Committee considers that given the extensive use of checks in Israel and given the objective of reducing the scope of the shadow economy, a review should be conducted of how to integrate a digital alternative to the traditional check in the payment system in Israel, including adjusting the legal and technological infrastructure. In accordance with the Committee's recommendation, in January 2016 an internal Bank of Israel work team was set up, which conducted a preliminary review of "digital debit payment instructions", including reference to the transaction execution chain for means of payment and an examination of Israel's market needs. The internal work team recommended to promote the digital debit payment instruction in Israel's payment system. Likewise, a joint legal work team was recently established to examine if there is a need for creating a legal infrastructure adjusted for digital debit payment instruction.
6. **Promote consumer education and generate consumer trust in advanced means of payment.** The Committee considers that efficient promotion of the use of advanced means of payment requires accompanying and supporting these processes through financial education and introduction of these means to the public at large.

The Bank of Israel and the relevant entities will continue to monitor developments in advanced means of payment in the Israeli payment system.

### 3. Introduction

In September 2013, the Government decided to establish a Committee—headed by Mr. Harel Locker, Director General of the Prime Minister's Office—to examine the reduction of the shadow economy and money laundering through restriction and reduction of use of cash and other means of payment, designed to expand the tax base (hereinafter: "the **Locker Committee**"). This Committee was authorized to formulate a policy outline which would gradually reduce the use of cash and other paper-based means of payment, including restrictions on negotiability of checks, and to draft a proposal on providing incentives and removing barriers to encourage use of advanced electronic means of payment. The Committee's report was approved by the Government in October 2014.<sup>4</sup>

In accordance with recommendations made by the Locker Committee, the Joint Committee on Advanced Means of Payment in Israel (hereinafter: "the **Committee**") was established in March 2014. The Committee Chair is Ms. Irit Mendelson, Director of the Accounting, Payment and Settlement Systems Department at the Bank of Israel. Committee members include representatives from the Prime Minister's Office, Israel Money Laundering and Terror Financing Prohibition Authority, Israel Tax Authority, Ministry of Justice, Israel Antitrust Authority, National Cyber Bureau, National Information Security Authority, State Attorney's Office, Israel Police, the Ministry of Finance, and the Bank of Israel.<sup>5</sup>

The Committee was created to regulate advanced means of payment in aspects of information security, AML and terror financing, business continuity, competition, stability and efficiency—so as to encourage the public in Israel to expand the use of advanced means of payment and provide a response to existing risk associated with use of such means of payment, including AML and terror financing risk, cyber risk and other risks.

The Committee members received overviews on issues related to advanced means of payment, including overviews of the payment and settlement system in Israel, advanced payment solutions worldwide, risks with regard to AML and terror financing, mapping of current regulations of the payment system in Israel and overseas and proposals for solutions to promote use of advanced means of payment. The Committee also invited payment system stakeholders to present to the Committee their solutions for safe and efficient advanced means of payment with regard, *inter alia*, to digital debit payment instructions (digital checks) and the electronic wallet.<sup>6</sup> In November 2015, the Committee published an Interim Report that reviewed its work and the areas emphasized by the Committee in the course of its work. Beginning from the publication of the Interim Report, various work teams were set up for the implementation of the Interim Report's recommendations, and the Committee held various hearings with payment system stakeholders, as it recognized the importance of dialogue with the various entities and understating the market's needs.

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<sup>4</sup> <http://www.pmo.gov.il/Secretary/GovDecisions/2014/Pages/govdec2115.aspx> (Hebrew version)

<sup>5</sup> Committee members are listed in Chapter 13.

<sup>6</sup> <http://www.boi.org.il/he/PaymentSystem/Documents/הזמנה%20פומבית%20להברות2015.pdf> (Hebrew version)



The Committee summarized its major recommendations with regard to the steps required to promote the use of advanced means of payment. These recommendations are designed to encourage the use of advanced means of payment and to encourage the development of solutions which would promote the use of advanced means of payment through setting up infrastructure that would allow for competition, efficiency, security, reliability and convenience. The final report provides an overview of means and solutions for advanced electronic payments in Israel and abroad, the advantages of using them, the alternatives for conducting transactions using advanced means of payment in the current payment systems, legal aspects with regard to promoting use of advanced means of payment, the risks inherent in use of such means of payment and the barriers to the use thereof.

#### **4. Overview of advanced means of payment worldwide**

The global payment system has been growing in recent years, with electronic payments replacing paper-based transactions using cash and checks. Technological developments in the Internet and smartphones over the past decade have changed the way in which people pay and receive money for their purchases and sales. These developments have resulted in creation of means of payment which allow consumers to make remote payments in new ways. They also provide for alternative payment methods, such as using smartphones, smart watches and smart bracelets, instead of physical payment cards. Consumer behavior, with regard to retail payments, is influenced by demand for safe, efficient and convenient means of payment. As mobile phones become more common means of payment, more apps are being downloaded for making mobile and contactless payments.

When consumers and merchants see the benefit in conducting such transactions, this provides an incentive for entrepreneurs to develop innovative means of payment. Such development is carried out not only by banking corporations and international credit card companies - but also non-banking entities, including leading technology firms, private companies and individual entrepreneurs. Some of these innovations include new solutions for making advanced payments, various options for using new access devices and alternative access channels, options to improve payment efficiency and security level and response to cyber-attacks. Some of the better known developments include the "Apple Pay" service, the "Samsung Pay" service, Google's electronic wallet, the PayPal and Alipay e-commerce services and payment services using social media, such as through Facebook. This is in addition to the emerging development of means of payment including electronic wallet, prepaid cards and services based on a link to checking accounts or link to the client's payment card. Use of these means of payment by consumers, merchants and corporations is growing, mainly because they provide a solution for these users' needs.

An innovative development in advanced means of payment may be seen in Hong Kong, which promotes the use of digital checks.<sup>7</sup> The development is managed by the central settlement company, HKICL, a company that provides clearing services to all commercial banks and which is owned by the Bank Association and by the central bank of Hong Kong (HKMA).

The Hong Kong digital check has these attributes: Both parties to the transaction, payer and payee, must sign the digital check by digital signatures issued by authorized entities; digital checks may not be endorsed; in order to ensure that trading using digital checks will be orderly and protected, appropriate steps will be taken - including creation of encrypted and encoded infrastructure; no change can be made to any information on the digital check: payee name, amount, date etc. Any attempt to make such a change would invalidate the digital

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<sup>7</sup> Note that development of the digital check in Hong Kong is referred to in this report merely as an example, and its attributes may differ from those of the digital debit payment instruction to be developed in Israel.

signature and the check itself; the digital check includes minimal sensitive information and the payer's account information does not have to be disclosed to the payee.

Payment systems worldwide have also significantly developed in recent years. For example, various countries - including South Africa, Mexico, the UK, Poland, Sweden and Singapore - have deployed a fast retail payment system. Other countries, including Australia, the US, as well as the EU are in the process of deploying such systems.

The Committee, as part of its work, reviewed the Faster Payment<sup>8</sup> system, a fast retail payment system created by VocaLink which was put into operation in 2008, by order of the Bank of England, in order to increase competition in the market, to replace settlement using the BACS system<sup>9</sup> and to reduce the time required for payment transfer between clients of different banks from three days to a few hours. The system operates 24/7, serving individual and business clients - with the maximum transfer amount set at only GBP 250,000. As of 2016, the system hosts 11 banks and hundreds of indirect (hosted) players.

The PAYM mobile payments service used to transfer payments between user accounts operates through the system. This service makes it possible to send and receive payments using your cellphone number, without requiring details of your bank account (the phone number is linked to the bank's database, which includes the user's account information). This service is provided by using the bank application and is available to most customers of those banks who are members of this system.

In addition to the development of means of payment and payment systems, the world has recently seen development in legislation concerning payment systems, as well. Especially advanced regulation may be seen in the European Union, which is cited in this report as an example.<sup>10</sup> For the past decade or so, the European Central Bank has been acting to harmonize and integrate payment systems through the Single Euro Payment Area (SEPA) project. This project is designed to create arrangements for rapid, efficient and safe transfer of payments between EU countries and to improve the system of means of payment, *inter alia* through regulations, removing barriers and opening the system of means of payment to competition through entry of new entities. In this regard, we shall refer to two key directives: With regard to payment services – the Payment Services Directive<sup>11</sup> (PSD) and with regard to electronic money – the E-Money Directive<sup>12</sup> (EMD).

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<sup>8</sup> The system may be used for four types of payments:

- a. Single Immediate Payment - standard transfer from client to client, settled within up to two hours.
- b. Forward Dated Payment - payment made in advance using the system, which is settled on the date specified by the sender. This is typically used for payment of monthly bills, rent etc.
- c. Standing Order - payment in a fixed amount made by the client every month.
- d. Direct Corporate Access Payments - this service is available to companies, which may send a large number of concurrent transactions to the system.

<sup>9</sup> Automated settlement system for payment orders.

<sup>10</sup> For more information see Appendix A.

<sup>11</sup> [Directive 2007/64/EC on payment services in the internal markets](#)

<sup>12</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0110&from=EN>

## 5. Overview of advanced means of payment in Israel<sup>13</sup>

The payment system in Israel has been in constant flux over recent years, due to implementation of various reforms, technological developments and global developments. Such change leads, *inter alia*, to promotion of ventures involving advanced means of payment by the banking system, as well as by various companies and entrepreneurs.

The leading innovations and developments in Israel include technology which enables contactless payment, mobile POS terminals, option to deposit checks to a bank account using a cellphone, online payments and use of electronic wallets and payment apps for computers and smartphones.

### 5.1. Checks

The use of checks—especially post-dated checks—is very common in Israel, compared to the rest of the world, both in the business sector and by the public. Post-dated checks are used by bank customers as collateral to secure loans for their business and in fact, serve as an additional credit facility. They are also used to make periodic tax payments and to pay suppliers in multiple installments.

Checks have a wide range of uses: Payments from individual to individual<sup>14</sup>, payments from individual to business<sup>15</sup>, payments from individual to a public entity<sup>16</sup> and payments from business entities.<sup>17</sup> In addition, checks may be used as follows: Payment for immediate debit and credit; payment by installments using post-dated checks, to be presented on the date thereof; check provided as collateral—the check is not to be cashed, but only to be used as collateral to secure making a payment at a later date. This use is common, for example, in lease agreements and in transactions with various suppliers; check for security - usually used for bank credit; gift check—checks designed for gift giving, by individuals on festive occasions and by business entities to their clients and employees; cashier's check—check issued by a bank to guarantee a payment to be made.

In Israel, checks are extensively used, *inter alia*, because they have many advantages for both drawer and drawee. Advantages for the payer include: Checks are available and convenient; their negotiability may be restricted - and the check may be cancelled if lost, stolen or in case of non-receipt; it serves as confirmation of payment to the payee after it has been cashed; it allows for making future installments which may not be in equal monthly amounts (without being subject to the bank-approved credit facility, until it is cashed); and it serves as a backup means of payment in case of emergency. Advantages for the payee include: It provides legal

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<sup>13</sup> For comprehensive and extensive information about the activities of major payment and settlement systems in Israel, see the "2015–16 Red Book". See:

<http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/22-1-17.aspx> (Hebrew version)

<sup>14</sup> Nannies, kindergartens, maids, private medical care, private tutors, renovations, private loans, rent, gifts on festive occasions and payment to homeowners' association.

<sup>15</sup> Payment of vouchers and bills at banks, payments to insurance companies, check for security, charitable donations to NGOs, consumables.

<sup>16</sup> Tax payments (VAT, National Insurance, Income Tax) payments to educational institutions (kindergarten, school, university), deposit to provident /pension fund.

<sup>17</sup> Taxes, payroll, payments from insurance companies, payments to suppliers, deposits to employee provident /pension fund, purchasing consumables.

proof of the transaction and payment there for; if the check is not honored, the payee may directly apply to the Enforcement and Collection Authority; if lost, the asset may be realized using a "duplicate note"<sup>18</sup>; it is possible to verify in advance if the payer's account has been restricted and not to accept their check; the check serves as collateral for credit.

The use of checks exposes the customer, the payee, the bank and the entire system to operating risk, liquidity risk and credit risk. Receipt by check is not final and is not certain. The payment is deposited to the payee account with a "non-final" ("contingent") status for three business days - the duration in which the check may be returned. Second, there is risk associated with failure in liquidity management by the client or the bank<sup>19</sup>. Third, those involved in the transaction are exposed to fraud – theft, forgery, check endorsement, including discounting transactions based on an endorsed check, because payment for goods by check exposes the recipient to liquidity risk and to credit risk, because the goods are delivered upon receiving the check, whereas the payment is not final and may bounce, i.e. there is no DVP<sup>20</sup>. Fourth, the use of checks, particularly negotiable checks, is even liable to serve for money laundering and terror financing. This is mainly because of the possibility of endorsing the check without documentation or control. Fifth, the use of checks does not allow the bank to verify that the customer is in compliance with their credit limits: the customer may issue unlimited checks, since the bank cannot fully monitor them. Checks without cover are a risk for the entire economy, as they impact many social strata – business owners, social organizations and individual payees. Finally, the use of checks carries an environmental cost, since they are printed on paper and transported between multiple locations.

Note that the Locker Committee started addressing the risk associated with the use of checks and recommended an outline for reducing the use thereof. The Committee recommended an outline to reduce the use of checks in Israel's payment system, reflected in, *inter alia*, the Reducing the Use of Cash Bill, the Electronic Check Clearing Law, a recommendation to restrict transaction amounts on checks and to prohibit the use of checks with no payee name indicated ("blank check"). It also recommended promoting the use of the digital check as one of the ways to expand the use of advanced means of payment in Israel's payment system.

In accordance with the foregoing, the Bank of Israel in recent years has examined the use of paper-based means of payment within the framework of planning the reform for reducing the use of checks in the payment system, including the legislation of the Electronic Check Clearing Law, 5776-2016<sup>21</sup>, and changes to settlement processes in the Paper-based Clearing House.

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<sup>18</sup> According to Section 69 of the Notes Ordinance (New Version), if a note is lost prior to maturity, the person who held the note may require the payer to issue them another, identical note.

<sup>19</sup> The banks' liquidity risk is due, *inter alia*, to the fact that banks credit their clients on date T, while inter-bank settlement occurs on date T + 1.

<sup>20</sup> DVP (Delivery Versus Payment) - concurrent transfer of goods and payment there for.

<sup>21</sup> Electronic Check Clearing Law – in Hebrew – available at [http://fs.knesset.gov.il/20/law/20\\_lsr\\_321435.pdf](http://fs.knesset.gov.il/20/law/20_lsr_321435.pdf)  
The Bank of Israel press release after publication of the Electronic Check Clearing Law:  
<http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/02-02-2016-DigitalCheque.aspx>

The Electronic Check Clearing Law, 5776-2016, was published in Israel's Law Book (*Sefer Hahukim*) on February 10, 2016. The Law makes it possible to shift from physical clearing of checks to electronic clearing by stopping the checks (check truncation) at the presenting bank (where the check is presented for payment), imaging the physical check, and sending files with images of the checks—instead of the actual physical checks—to the payer bank. The Law also advances and markedly increases the efficiency of the check clearing process, regulates the admissibility of the computerized check in legal processes, supports processes to increase efficiency being adopted by banks, and enables bank customers to deposit a check in an electronic, advanced, convenient, and efficient manner. In the first stage, beginning on November 8, 2016, interbank clearing of checks deposited by customers via mobile phones means will be possible (until that date it was only possible to deposit in this manner checks drawn on the same bank).<sup>22</sup> The second stage will begin in the fourth quarter of 2017, when all checks will be cleared in accordance with the provisions of the new law.

It should be noted that recently several countries legislated laws that regulate the banking system's activity in electronic clearing of checks.

## 5.2. Use of payment cards in Israel

There are several types of payment card in Israel:

**Deferred Debit Card** – the most **commonly** used card in Israel today. The client uses this card to purchase goods and services and pays for them monthly, sometimes in multiple deferred installments<sup>23</sup>. The merchant is credited, in accordance with the settlement agreement with the merchant acquirer, and the merchant finances the credit days between the client being debited and the merchant being credited. This card is associated with the client's credit facility, allowing them to withdraw cash from ATMs and/or to pay merchants for goods and services - up to the amount of the credit facility allocated them by the issuer.

When the client chooses to pay for a transaction by installments, the deferred debit involves one of two types of credit: (a) credit financed by the merchant - extended by the merchant for a period of several days up to several months; and (b) credit financed by the client - extended by the credit card companies for several months, occasionally for over one year, using "credit"-type programs.

The deferred debit card is not a complete alternative for cash, since it involves an aspect of financing and because it is only available to consumers to whom the card issuer has extended a credit facility.

**Debit card** – in this case, the accounts of the cardholder (buyer) and the merchant are debited / credited, respectively, immediately upon conducting the transaction<sup>24</sup>. This card provides the convenience of a debit card, along with (nearly) immediate transfer of payment - similar to cash, check (not post-dated) or bank transfer. A transaction using a debit card is less costly for the issuer than one involving a deferred debit card, regardless of the

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<sup>22</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/8-11-16-ElectronicClearing.aspx>

<sup>23</sup> For bank-issued cards, the debit is reflected in the client account.

<sup>24</sup> In accordance with Supervisor of Banks directives, the acquirer will transfer to the merchant the transaction proceeds within a maximum of 3 business days from the transaction transmission date.



transaction amount<sup>25</sup>. Globally, transactions are usually carried out using a debit card. In accordance with recommendations made by the Locker Committee, the Bank of Israel and the Israel Antitrust Authority initiated multiple improvements for clients and merchants using such a card or an identifiable pre-paid card<sup>26</sup>.

**Revolving credit card** – the holder of such a card can specify the maximum monthly amount to be debited, and the outstanding debt accrued with respect to additional purchases made using the card are deferred to future month(s) and accrue interest. Such cards are currently only issued in Israel by credit card companies (primarily in conjunction with joint issuance arrangements with retailers and consumer loyalty clubs) - but banks may issue them as well.

**Pre-paid card** – this card, denominated in NIS or in foreign currency, is pre-paid by the client with up to the maximum amount for the card, with each payment deducted from the card balance, down to zero. Cards of this type include cards for making purchases at food chains, calling cards, etc. These cards can be re-loaded, i.e., they are for multiple use - with some being identifiable, while others are anonymous.<sup>27</sup> These cards are issued by credit card companies and by the Postal Bank and may be used with any merchant that accepts the issuer's payment cards. The pre-paid card allows for transactions to be made up to the current balance on the card, which balance is updated after each transaction. This card may be re-loaded in multiple ways: Directly from the bank account, by charging a payment card (deferred, revolving or debit card) or by cash payment.

In addition to payment cards, there are also single-use pre-paid cards, including gift cards and anonymous virtual debit cards issued by credit card companies. These cards allow users to make purchases online without disclosing the buyer and purchase information. They carry the information of an alternative credit card which may be pre-paid (one time only) up to a limited amount<sup>28</sup> - while the information of the payment card used to load the virtual card is stored in a secure, encrypted system. If any balance remains on the virtual card - it may be downloaded. Pre-paid cards may serve as an alternative to cash for clients who do not have an account with the bank.

Three credit card companies operate in Israel – Isracard, Leumi Card and Cal-Cartisey Ashrai Le'Yisrael (ICC), which issue five local and international brands: Visa, MasterCard, American Express, Diners and Isracard. These companies issue and acquire cards in conformity with licenses granted by the relevant international organizations. It should be noted that recently a new acquirer license was granted to Tranzila Ltd.<sup>29</sup> The company is expected to begin operating as the fourth acquirer in the Israeli payment card market in the coming year, and will compete against the existing companies.

Business in this area has significantly expanded in recent years, due to several factors: Non-bank entities (usually, these are loyalty clubs) have started issuing payment cards; companies providing credit and financing have expanded their range of services through tools which

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<sup>25</sup> The cost to the client depends on multiple issues, with the key one being the formula of the interchange fee.

<sup>26</sup> The summary report on increasing competition in the debit card sector –

<http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/10-02-2015-Debit.aspx>

<sup>27</sup> Some may also be used to withdraw cash from ATMs, while others do not offer this facility.

<sup>28</sup> In 2014, this amount was NIS 2,000.

<sup>29</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/4-4-17.aspx/>

allows the cardholder to specify the debit amount and date based on their needs and abilities; the use of payment cards with merchants is convenient and available; and the range of e-commerce websites is expanding.

### 5.3. Electronic wallet

In recent years, we have seen technological changes which result in changes in means of payment. The Internet has significantly expanded the ability to make payments and to transfer funds, and online commerce created a need for development of new abilities to transfer funds and to make payments in a more rapid, secure and accessible manner. One of the more common recent developments is the Digital Wallet or the electronic wallet (E-Wallet)—the name depends on the type of activities supported by the wallet and the technology used.

An electronic wallet can be used for these major functions:

1. Conduct e-commerce transactions (such as payment for online shopping using a PC or smartphone, funds transfer to another person and bill payment);
2. Maintain funds in a virtual (digital) account, into which funds are deposited in various ways and then used to make payments or to transfer funds online;
3. Store information about means of payment (such as information about different payment cards), information about the wallet holder (such as shipping address for quick shopping), passwords for shopping websites, driver's license information etc.
4. Monitor online purchases made on the Internet or through the application.

In recent years, the use of E-Wallets has moved from Internet to cellular: Today, some providers offer use of an electronic wallet on a smartphone, by installing an app. Payment is made through the service provider to merchants, similar to payment using a payment card. The technology used in E-wallets on smartphones is usually through the NFC device integrated in smartphones for information transfer. To pay, a customer brings the smartphone near the card reader and connects to the application to confirm the payment. At this stage, their account is charged and the service provider sends the payment to the merchant. Note that in recent years, solutions were developed for smartphone without NFC hardware components - including a special sticker or external device, which includes information about the means of payment (such as: payment card).

In Israel, many companies, including banks, credit card companies, telecom companies, entrepreneurs and private companies - have tried in recent years to develop and promote the use of e-wallets due, *inter alia*, to their global development and the expanding use of cellphones for a wide range of financial transactions. In addition to payment for products, these include: payment of wages to temporary/foreign employees; payment for taxicabs; payment for parking; transaction approval for companies and individuals; obtaining information, funds transfer to clients of other banks; funds transfer between bank customers by bringing the two devices close to each other; cash withdrawal from ATMs without using the card, etc. Currently, there are several banks in Israel offering various services using an



electronic wallet that is directly synchronized with their bank account; these services allow for funds transfer and making various payments directly from the app. Note that some e-wallets which can store multiple means of payment mostly act as closed payment systems, which only allow funds to be transferred among those with accounts on the system.

#### 5.4. Innovation in advanced means of payment in Israel

In recent years we have seen development and innovation in advanced means of payment in Israel - here are some examples:

**Smart payment card (EMV)** – In Israel, the market has been adapting to smart payment cards – cards which use the advanced EMV<sup>30</sup> security standard – because they would provide new benefits. First, in order to use them a PIN must be entered on the merchant terminal, which reduces the use of stolen or lost cards; thus, the transition to such cards would reduce the fraud potential and would improve client and issuer trust. Second, this transition would align the local market with the global one, expanding the ability to make payments overseas using cards issued in Israel.

The transition to smart cards requires adaptation of various systems, including the Shva (Automated Banking Services) system and POS terminals. According to a plan outlined by the Antitrust Authority Director General—together with the Supervisor of Banks and the Payment and Settlement Systems Oversight at the Bank of Israel—in January 2016 Shva completed its preparation and the establishment of the technological infrastructures for support of acquiring smart payment cards (EMV).

**Developments with regard to merchants' POS terminals** – With regard to POS terminals, various technology and hardware devices have been developed, to assist in promoting use of advanced means of payment and in encouraging competition in the payment system. These solutions include POS terminals with support for EMV technology, support for making payments using NFC (Near Field Communication), support for multiple applications<sup>31</sup>, and for hardware-based implementation of advanced means of payment.

These solutions enable new options for transaction approval, entrance of new entities and implementation of advanced solutions and means of payment. These terminals also reduce dependence on the switch for transaction approval and settlement, since they open new paths for transaction processing and routing. Yet at the same time, this places the main activity at systems of the new acquirer or processor.

**Conducting contactless transactions** – A contactless transaction is a technology solution which allows for wireless data transfer (with no contact between the transmitter device and the reader device). The term "contactless transaction" covers a wide range of means of

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<sup>30</sup> EMV (Europay, MasterCard and Visa) – a set of specifications developed by international credit card companies to provide a uniform, secure standard for payment using payment cards in “card-present” transactions.

<sup>31</sup> A terminal that supports multiple acquirers and issuers promotes competition for clearing payment cards and enables merchants to easily migrate between acquirers. In contrast, when each terminal is owned by a specific acquirer, and only supports working with that acquirer, it forces the merchant to replace the acquirer’s terminal when switching.

wireless data transfer, such as: Conducting payment card transactions, payment of fares on public transportation using a dedicated card, card used for attendance confirmation at a work place, etc. Contactless transactions may employ various techniques, most commonly NFC (Near Field Communication).

Payment-card transactions using contactless technology may be conducted using a device on the card, a unique sticker, a device incorporated in the cellphone or a device incorporated on a special SIM card in the cellphone. Contactless payment is only possible for merchants with a special reader incorporated in their POS or attached to the POS as an external device.

**Online payments and e-commerce** – Recent years have seen significant growth in e-commerce, i.e., commercial transactions conducted electronically, due to improved access to the Internet, technology developments in Israel and worldwide and advertising on social media. Today, you may purchase many goods and services from the comfort of your home - even if the supplier is abroad and even if they have a virtual store and never meets the customer. Today, e-commerce spans all transaction types - individual, retail and wholesale, both in-country and international.

Progress made in Israel with regard to online payments allows users to pay online for a wide range of government and public services, as well - such as paying taxes, traffic tickets and police fines, fees for renewal of license, passport or transit documents, as well as water, electricity, and municipal tax bills. Banks in Israel also allow their clients to conduct transactions online and by using custom apps on smartphones. Once a personal, confidential password has been issued, clients can monitor their account and safely make payments and transfers between accounts - although these are mostly capped at a certain amount. Because online services can be used outside bank branch business hours, banks improve service to their clients and reduce waiting time at the branch.

**Cellular check** – As of November 8, 2016, interbank clearing of checks deposited using a mobile phone is possible (until then it was only possible to deposit via mobile phone checks drawn on the same bank). This service is allowed at most of the banks. Depositing a check through mobile phone is possible for crossed checks, marked “to payee only”, and up to an amount of NIS 10,000 per individual check. This process increases the efficiency of the process of clearing checks among members of the Paper-based Clearing House, allows bank customers to deposit checks without physically going to a bank, allows the increased use of advanced electronic means of payment, through the bank applications offered them, and also allows the reduction of costs to the customer in respect of depositing the check (the cost of a customer-executed transaction as opposed to a teller-executed transaction).

## 6. Advantages of using advanced means of payment

Promoting the use of advanced means of payment would contribute to increased competition, efficiency and security of the payment system in Israel. Use of advanced means of payment offers various advantages, which may be reflected on different levels, including creating a situation where an entity that has developed an advanced means of payment has a competitive advantage over other entities in the payment system; reduced transaction costs compared to other electronic means of payment; documentation of transactions involving the means of payment; convenient use for customers and availability to customers.

Data from the Central Bureau of Statistics<sup>32</sup> shows that in recent years in Israel, there is a constant growing trend in the number of households connected to the Internet, in use of computers and in use of smartphones. This trend facilitates promoting the use of advanced means of payment, because widespread connectivity to communication infrastructure for providing payment orders has grown significantly in recent years.

Entities that propose innovations in means of payment may benefit from a competitive edge over the competition offer a more convenient service to the customer and even generate opportunities for sale of additional services, such as coupons customized to the nature of customer activities, coupons for merchant promotions and discounted offers based on the customer's location. The need to gain the edge over the competition pushes service providers to offer new, advanced means of payment which create value for customers and allow them to offer additional products related to the transaction. Furthermore, development of advanced means of payment allows service providers to expand their customer base, since they allow customers to buy goods or services online or using their smartphone - and they allow them to make purchases from anywhere in the world. Online communication may also create opportunities for companies to increase revenues by providing information to consumers about special offers, promotions and discounts.

The use of advanced means of payment may result in lower fees charged in the payment process from all players in the transaction execution chain due, *inter alia*, to the entrance of new entities. It may also result in significant reduction of the cost of making payments, due to elimination of the need for paper-based settlement. This decrease refers, *inter alia*, to reduced cost associated with the use of cash – a relatively expensive use for retailers, since it involves cost for deposit, transit, insurance, holding, forgery and loss of interest.

We may also note that promoting the use of advanced means of payment would help reduce the shadow economy in Israel. The Locker Committee report shows a link between the shadow economy and money laundering and the extent of use of cash and check negotiability. This link is due to the ease with which these means of payment allow for transactions to be conducted "under the radar" of government authorities and outside of the financial and payment systems. The use of advanced means of payment would allow for

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<sup>32</sup> Household Expenditure survey.

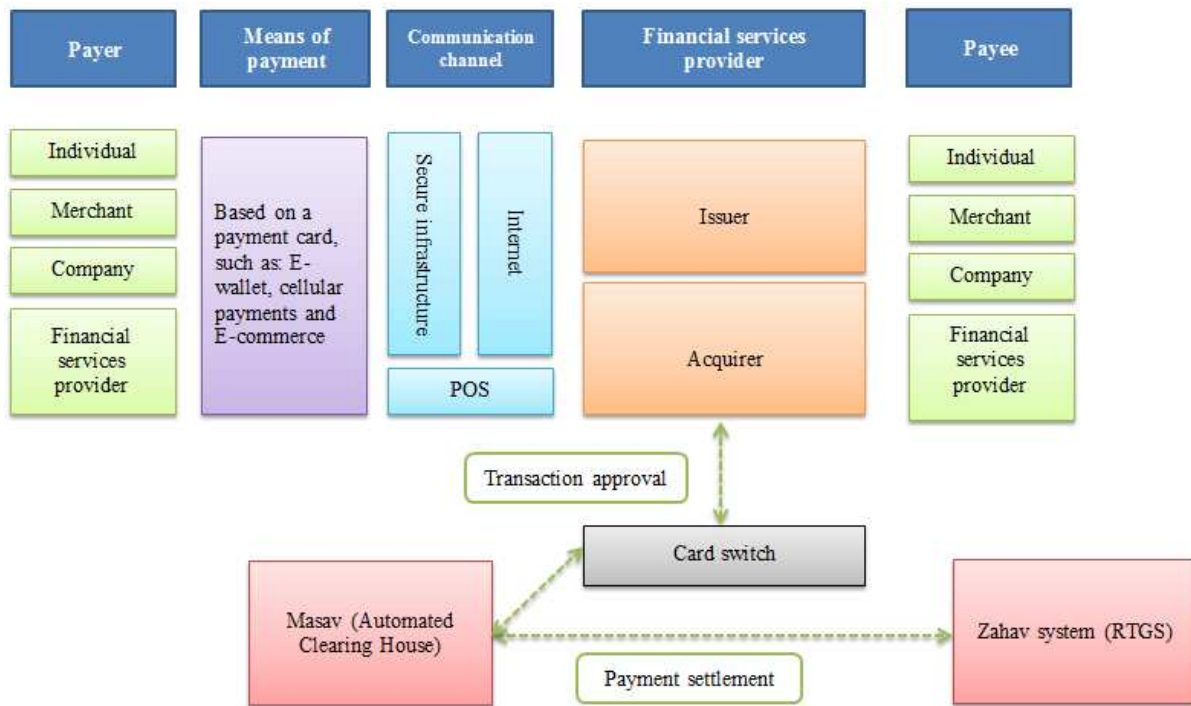
digital monitoring of transactions, which would be documented and identifiable in the financial system and in payment systems.

## 7. Alternatives for conducting transactions using advanced means of payment in the current payment systems

### 7.1. Description of a transaction conducted using advanced means of payment

Advanced means of payment do not necessarily exist separately from currently existing means of payment—cash, bank transfers, direct debit or payment cards—rather, they are based on such means of payment and make use of the current infrastructure and payment systems in Israel. Today, most advanced means of payment in Israel are based on payment cards.

When looking at the current chain for executing transactions using advanced means of payment, namely a chain based on payment cards, one can identify multiple links: Payer, means of payment, communication channel, financial services provider, payment, card switch<sup>33</sup>, Automated Clearing House (Masav), Zahav system (RTGS) and the payee.



**Payer**—individual/merchant/company through which payment transactions are initiated—e.g., through a custom application or through a website.

**Means of payment** – means of payment which may be used to execute payment instructions based on a payment card.

**Communication channel** – the payment transaction using advanced means of payment should be transmitted using a secure communication channel, which includes websites

<sup>33</sup> The infrastructure connecting issuers and acquirers (or processors on behalf thereof) for approval and settlement of transactions, sometimes also carries out the monetary settlement between issuers and acquirers. The switch services can be provided by the cards scheme, processor or a special-purpose entity.

secured by advanced encryption, secure designated communication infrastructure and payment terminals (POS) which allow the merchant to read the card data and to process the request for a transaction using a payment card.

**Issuer** – the entity that provides the payment card to the customer, in accordance with an agreement between them.<sup>34</sup> This entity manages the cardholder's account, including the credit facility for the card (if any). The card issuer may approve or reject debit requests and ensures that the acquirers would receive payment for transactions made by the holder of a card issued by the issuer. Issuers are typically banks or financial institutions.

**Acquirer** – the entity which connects the merchant and the issuer, allowing the merchant to receive payments from the cardholder through the issuer. The acquirer ensures and transfers the payment to the merchant. Note that credit card companies, as well as acquirers that are not banking corporations, may connect to the payment card switch.

**Payment card switch** – the national network—"Ashrait" (payment card transactions)—is managed and operated by Shva (Automated Banking Services). This is a private company incorporated in 1979, owned by the four major banks and operating as a joint services company, as defined in Section 23 of the Banking (Licensing) Law, 5741-1981. The company operates pursuant to a license and operating permits granted by the Bank of Israel and in conformity with an exemption of restrictive trade practice granted by the Israel Antitrust Authority. The company provides services to various financial institutions: banks, financial institutions, credit card companies, etc.

The company manages the communication network between credit card companies and payment terminals at merchant premises. This network supports most payment cards in the world - Visa, MasterCard, American Express, JCB, Discover (Diners) and private label cards - and supports all transaction types involving payment cards. In conjunction with operating the national system, Shva provides multiple services: transaction approval, transaction collection, Stand-In service<sup>35</sup> and other services.

The company also manages the settlement interface between the credit card companies. The settlement interface consolidates activity for each acquirer and issuer, after which it generates clearing reports. These reports are sent to the Automated Clearing House (Masav) and are then sent for settlement to the Zahav system (RTGS). This process is conducted in conformity with pre-defined and agreed rules. The interface manages a central database for queries and enables a simple system for accounting control.

**Automated Clearing House Ltd. (Masav)** – a private company established in 1982, operating as a joint services company, pursuant to a license and operating permits granted by the Bank of Israel and in accordance with an exemption of restrictive trade practice granted by the Israel Antitrust Authority. The company provides electronic settlement services for debits and credits, operates the system for customer transition between provident funds and between advanced training funds and provides services for information transfer between Government entities and banks.

There are approximately 28,000 entities operating in Masav, including organizations, banking corporations, the Postal Bank, Government ministries and public institutions as well

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<sup>34</sup> The agreement is based on Section 7 of the Debit Card Law, 5746-1986.

<sup>35</sup> Responding to approval requests on behalf of the acquirers.

as other settlement providers. The number of entities operating in Masav increased by approximately 7.5 percent between 2014 and 2015.

**Zahav system (RTGS)** – this is an advanced system for efficient, reliable and irrevocable settlement of NIS-denominated payments in Israel, in real time and with finality; it serves as the final settlement provider for all payment systems in Israel. The system ensures fast, secure payment execution for its users. The settlement is made within minutes; once completed it is irrevocable and the payment recipient may immediately use the funds transferred with no risk exposure. The system, operated by the Bank of Israel, was launched in July 2007.

RTGS significantly reduces the risk associated with payment system operations - both credit and liquidity risk and the dependence of each participant on other parties to settlement - thereby significantly reducing the system risk. The Zahav system allows for transactions to be made securely and with no settlement risk, even in times of financial uncertainty.

**Payee** – individual / merchant / company. Payment recipients are the transaction beneficiaries.

## 7.2. Access to existing payment systems

Access rules to the payment systems used in Israel are specified by their operators, together with the system participants and subject to approval by Payment Systems Oversight at the Bank of Israel. It is clarified that, according to generally accepted international standards, the criteria for access to the system should be objective, risk-based and known to the public, enabling fair and open access to participation in the system, suspension or rescinding of such participation.

Access to the payment system is subject to the participant complying with regulatory requirements, committing to adhere to the rules and complying with all requirements stipulated by the system, including: Being an entity subject to regulatory supervision and maintaining arrangements with regard to activity on the system, technological and operating requirements, legal requirements and requirements related to information security and to risk management.

In July 2016, the Bank of Israel published for the general public the terms of access to controlled payment systems—the threshold terms for participation.<sup>36</sup> The terms of access to the systems create the framework through which new entities are able to connect to them and to operate through them. This framework enables entities to act in the payment system also as indirect participants—that is, through reliance on services provided by direct participants in the system, and without the need to meet the requirements that direct participants must meet (the system rules). The arrangements for indirect participation will enable new entities to provide payment services<sup>37</sup> to their customers and thus enhance the competition in the payment services field in Israel.

It should also be noted that in 2014, the Bank of Israel established an internal team to examine the execution chain of debit card transactions, in order to promote the creation of another switch for conducting payment card transactions. The team made a comprehensive

<sup>36</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/31-07-2016.aspx> (Hebrew version)

<sup>37</sup> Managing payment accounts, carrying out payment transactions, and settling payment transactions.



review of all links in the transaction execution chain, including the card switch, and published its final report and the Principles and Complementary Steps in the Development and Use of a Protocol for Payment Card Transactions in July 2016. Highlights of the recommendations are as follows<sup>38</sup>:

- **Expand activity and participation in the National Payment Council** to other stakeholders, in conformity with the World Bank model. The Council is an advisory board for the Bank of Israel and discusses market needs and planning of the payment strategy.
- **A payment cards committee was established.** The committee is headed by the Bank of Israel, with the participation of various representatives from the payment card market—including Shva, banks, distributors of software and hardware for settling transactions, terminal manufacturer, acquirers, and issuers. The committee will define and specify activities and rules for execution of payment card transactions, so as to increase competition and efficiency while maintaining stability and security.
- **Specify principles and rules for development and use of the protocol.**<sup>39</sup> The payment cards committee will specify the principles and rules for development and use of the protocol, while maintaining a balance between participant needs and systemic considerations and ensuring the transparency and accessibility of the protocol to all relevant stakeholders.
- **Modular implementation of the protocol**, to allow for selection and implementation of terminal uses in conformity with user needs - whether on the terminal or on a remote server.
- **POS terminal support for multiple applications and contactless transactions**, to allow for other routing methods that will open the market to competition and development of advanced means of payment.

The Bank of Israel has started implementation of the recommendations, which will enhance the competition, stability, and efficiency of the payment system in Israel. Accordingly, in May 2017 an update was published regarding the results of the operative steps taken to date for the implementation of the protocol principles, including a “Required and Optional Components of the Protocol” document, which outlines the policy for implementing the protocol in the payment card market.<sup>40</sup> The expected changes resulting from these processes will also allow for development of advanced means of payment.

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<sup>38</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/03-08-2015-SwitchReport.aspx> (Hebrew version)

<sup>39</sup> Technology specification and structure of message used to transfer a transaction along the chain.

<sup>40</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/09-05-2017.aspx>



## 8. Barriers to using advanced means of payment

The Committee, as part of its work, mapped barriers which may impact the promotion of use of advanced means of payment in Israel. This mapping included technology and business barriers, as well as the transaction execution chain for advanced means of payment.

**A legal framework unsuitable for the nature of operations involving advanced means of payment** may reduce the use of advanced means of payment by providers of financial services and by private developers thereof, as well as by customers who use these advanced means of payment. A legal framework which does not regulate the rights, obligations and responsibilities of all entities involved in the transaction execution chain for advanced means of payment may result in uncertainty and hamper (or even preclude) the development of advanced means of payment in the payment system. Also note, on this matter, **the absence of sufficient consumer protection** and its impact on the use of advanced means of payment. This requires clear legislation, known to consumers, which imposes responsibility on the relevant party if products are not delivered on time and as agreed, if the means of payment are abused, if there is an input error by the service provider with regard to the transaction amount, as well as regarding the unloading of unutilized funds from stored-value cards.

**The absence of uniform standards and rules for use of advanced means of payment** impacts the use of such means of payment. It is highly important to create uniform standards for information security and cyber protection and to create uniform rules for all financial service providers offering services using advanced means of payment. The absence of such standards may restrict the market and may result in sub-optimal conditions for innovation development in this field. In addition, uniform standards are needed for transferring payment instructions for advanced means of payment through technology between various payment service providers, to prevent financial service providers from developing custom communication interfaces among themselves.

**Absence of a central settlement system for making payments using advanced means of payment**, a system which would provide 24/7 access to the switch for approval and clearing all advanced means of payment in Israel. The system allows receiving authorization of the execution and clearing the transactions made using advanced means of payment which are not based on a payment card. It also allows settlement of advanced means of payment which currently operate only in closed systems.<sup>41</sup>

**Absence of secure communication infrastructure for making payments using advanced means of payment**, from the end user to the payment system, may delay the development of advanced means of payment. All entities in the transaction execution chain for advanced means of payment may be concerned about information disclosure, disruption and identity theft, and may avoid making payments using such means of payment, from information

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<sup>41</sup> A closed system only allows for payments to be sent among members thereof; hence it is not possible, for example, to send a payment instruction to a person who is not a member of the system.

stored on the smartphone / PC, through the communication used to transmit information to the financial services provider and all the way to settlement of the payment instruction in the payment system.

**The use of advanced means of payment is a two-party activity**, when a payment is made it involves two end users (the payer and the payee). For the payment to be successfully completed the payer must hold an advanced means of payment and the recipient must be capable of accepting such means of payment. For example, use of an electronic wallet requires adoption by both consumers and merchants, i.e., both parties must adopt the same innovative means of payment. To overcome this barrier, co-operation is required among multiple stakeholders.

**The costs of investment, development, adaptation for systems and business models and marketing of advanced means of payment** impact the deployment of such means of payment. Investment in development of innovative means of payment - including development of business models, technology development and adaptation for other systems and business models that accept such means of payment - involves financial cost but does not ensure success in deployment of the means of payment in the payment system and acceptance by customers as a legitimate means of payment. Furthermore, the issuer of advanced means of payment must invest in marketing in order to expand the use of their means of payment.

**Absence of widespread deployment of terminals that support contactless transactions at merchant premises** may delay the evolution of use of advanced means of payment and impact, *inter alia*, development of means of payment based on such technology (such as electronic wallet). Advanced means of payment based, *inter alia*, on payment options which also support contactless technology, such as: NFC, Bluetooth, WI-FI. Conducting a contactless transaction requires installation by the merchant of a custom POS terminal which supports this technology. Such terminals currently operate in a relatively small number of merchants in Israel. Also note that the diverse solutions for conducting contactless transactions create uncertainty as to the leading technology. Today, major technology vendors such as Samsung and Apple include NFC hardware components in their smartphones, which support contactless transactions.

**Adoption of new means of payment by payers and payees** - there is natural concern among potential users about using a new, unfamiliar means of payment. This concern is due, *inter alia*, to uncertainty about consumer protection granted to payers using such means of payment, the expected cost and the fee structure. Payees are also concerned, since such means of payment are perceived as a breeding ground for fraud and due to uncertainty about the cost associated with receiving such payment. **The time required for changing public habits with regard to using advanced means of payment** is another barrier, with educating the public and changing their habits expected to take several years. In this regard, also note the **fear of innovative technology among different population segments**, a fear which may

slow down the transition to using advanced means of payment. For example, older citizens are generally more concerned than younger people to conduct transactions based on advanced technology, while the latter use advanced devices more extensively.

## 9. Risk associated with use of advanced means of payment

### 9.1. Cyber risk

Advanced means of payment may benefit from a wide range of security options, but they are also exposed to new cyber risks. There is potential for damage due to security faults typical of advanced computer platforms (such as smartphones and apps) - because they are susceptible to intrusion and a range of abuses, from data disruption/forgery, through identity theft and theft of large sums of money, to preventing funds transfer service. The damage may be reflected in widespread crime, but over the long term is liable to impact at the national level, e.g., through severe disruption of business activity and daily routine and in availability of infrastructure for conducting financial transactions (denial of service).

The multiple existing methods significantly reduce security, both directly and indirectly. Below we clarify this premise, by referring, *inter alia*, to competing for customers instead of investing in security, multiple vulnerable interfaces, absence of an entity responsible for security failures or of an insurer; inefficient allocation of security resources; lack of effective capacity to develop low-cost, reliable protection technology; absence of appropriate regulations and increasing difficulty in changing entrenched norms and practices.

**Competing for customers instead of investing in security:** The solutions are focused on improved benefit to users (ease of use, network support), rather than on security. Most consumers do not measure security - only the direct benefit from using the product. Therefore, companies tend to hide any security failures.

**Inefficient allocation of security resources:** Because multiple parties are involved in the chain, this may result in inefficient allocation of security resources. This is because the weakest link in the chain determines the overall security - and failure to invest in this link obviates over-investment elsewhere.

**Insufficient protection between the service provider and the system:** Most of the current protection solutions resolve the issue for the continuum between the customer and the service provider through the app. There is a significant gap in protecting the direct communications between the service provider and the actual system, which is currently not being addressed.

The routine work between users and service providers in cyberspace and with regard to advanced means of payment actually consists of a range of actions made by the customer in cyberspace with the advanced payment app. In order to perform this action, users must authenticate themselves and/or verify their permission to perform such action, depending on context. This requirement is fulfilled by authentication as a prior step to the transaction (identity authentication).

There are three categories of threats to online authentication and transactions:

- **Impersonation:** Use of the payment system by someone other than the person in whose name and identity the transaction is made, without their knowledge and consent, by using valid identifying particulars. Common reasons for impersonating include: Identifying particulars being stolen, copied, solicited by false pretense or produced without permission using weaknesses thereof, in authentication processes or among careless

and/or unknowing users. Some of these methods include: Password guessing and/or cracking, intrusion and/or restoring databases listing username/ password combinations, identifying particulars, payment card numbers etc., stealing cookies and various phishing attacks.

- **Forgery/ abuse:** Making a payment - or a change in payment or customer details - by someone other than the authentic entity, without their knowledge or consent, by intervention in the communication (or in the user's computer) during an "authentic session", using the mutual authentication which the legitimate parties have conducted earlier. In other words, this means "riding" an authenticated session. Through such activity, there is liable to be an adverse impact on the completeness or reliability of the data. Some of the ways to do so include: Attacks using a Remote Access Trojan (RAT), Man in the Middle attacks on the SSL (Secure Sockets Layer) medium using false, credible certificates that do not raise suspicion.
- **Denial of Service:** Negative impact to a system and/or disabling of infrastructure which supports transactions using advanced means of payment.

### 9.2. Operational risk

"Operational risk" means a risk of impediment in internal processes, people or systems, such as human error, technical failure in hardware or software and communication malfunctions or due to external events. Operational risk is inherent in all processes of financial service providers that provide services for advanced means of payment. Therefore, financial service providers are required to take action which would address such risk, in accordance with the risk profile of the services they provide. A financial services provider must prepare to potential failure of central operational systems, by means of an emergency plan which would allow for their continuous operations.

Preparations for addressing operational risk associated with use of advanced means of payment differ from preparations for risk associated with other means of payment used in the Israeli payment system. Hence the importance for the financial services provider to manage risk in conformity with the specific attributes of the advanced means of payment.

### 9.3. Settlement risk

"Settlement risk" is the risk of settlement not being carried out as intended in the payment system. This risk includes credit risk as well as liquidity risk. "Liquidity risk" is the risk that the financial services provider would not fulfill all their financial obligations towards the counter-party financial service provider, when due. "Credit risk" is the risk that the financial service provider cannot fulfill all their financial obligations when due or at any other time in future.

Such risk is realized for a financial service provider when they are unable to fulfill their obligations to transfer funds. For example, when a customer makes an online purchase, the merchant, through their financial service provider, contacts the customer's service provider for approval to charge the customer. The settlement risk is realized if there is a gap between the approval stage and the funds transfer stage between the payment (settlement) service

providers and in the final stage, the customer's service provider has insufficient funds in their account in the system. Realization of this risk may result in a domino effect: The financial service provider of the credited client is not credited, and is therefore unable to fulfill its own obligation.

#### 9.4. AML and terror financing risk<sup>42</sup>

Various means of payment for digital transfer of value have evolved around the world for some time—and are continuing to rapidly evolve. Such means of payment include electronic wallets and payment services by mobile phone. Moves to reduce the use of cash, as well as moves to promote the use of advanced means of payment, as envisioned by the Committee, should expand the use of such means of payment in Israel and, consequently, significantly increase the volume of funds transferred through such means of payment.

Advanced means of payment provide financial tools which are simple to operate and accessible to all. Just like other financial tools, they may be abused for laundering money originating from illicit activities and to finance terror. Therefore, promoting the use of advanced means of payment involves AML and terror financing risk which should be taken into consideration.

As supervision of advanced means of payment expands, in line with their inherent risk level, their use could also reduce AML and terror financing risk compared to using cash, with the latter being completely anonymous. Yet at the same time, because these are relatively new means of payment and may allow for money laundering and/or terror financing—the current risk of their abuse increases.

Below are listed types of AML and terror financing risk associated with use of advanced means of payment as examined by the Committee<sup>43</sup>. However, it is important to note with regard to this matter that such means of payment also have attributes which reduce the risk associated with use of cash and that some of the risk factors listed below are not exclusive to advanced means of payment.

AML and terror financing risks associated with use of electronic wallet and payment services by mobile phone derive from, among other things, most of the activity in Israel using advanced means of payment not currently being subject to supervision in conformity with the AML and terror financing regime. Therefore, customers carrying out financial transactions using these means are not required to identify themselves and the Israel Money Laundering and Terror Financing Prohibition Authority does not receive reports on financial activity carried out using advanced means of payment, and as a result crucial information for locating and investigating money laundering or terrorism financing doesn't exist. In addition, suppliers of advanced means of payment are not required to maintain records of transactions made using such means of payment for any significant length of time. To the extent that activity using these means expands and remains without appropriate supervision, the

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<sup>42</sup> See Appendix B: Advanced means of payment: The FATF recommendations related to money laundering in.

<sup>43</sup> Note that, based on the Committee's discussions, this review did not include AML and terror financing risk associated with use of virtual currency.

incentive will increase for criminals to use such means to transfer funds originating in crimes.

However, it should be noted, there are mitigating factors for AML and terror financing risk. These factors include the fact that transactions leave a trace, whereas using cash leaves no trace; transfers made using advanced means of payment usually leave some trace - an IP address or the name of the place where funds were deposited or withdrawn. This information may help law enforcement agencies in discovering the location or identity of the user, provided this information is kept for some time. In addition, advanced payment services are provided by computers, hence the service provider can efficiently monitor the transactions conducted by users.

#### 9.5. Tax evasion risk

Recommendations made by the Committee on Reducing Use of Cash in the Israeli Economy ("the Locker Committee") indicate that use of cash is one of the factors which facilitate tax evasion, due to being anonymous and easily hidden from authorities and because cash is easy to carry out commercial and financial transactions with. If availability and scope of advanced means of payment with similar attributes to cash and checks would increase and transactions made using such means of payment would not be documented and would have no user identification and monitoring, then—together with the law to reduce the use of cash—it may result in economic activity transitioning from the "classic" cash economy to advanced means of payment which enable tax evasion.

In a 2012 survey by the OECD, tax authorities in several countries noted that advanced means of payment enable revenues to be transferred to foreign bank accounts and facilitate tax evasion in their country. These countries noted some tools which allow them to address the tax evasion risk associated with advanced means of payment. Primarily, they recommended ensuring appropriate access to detailed information about transfers and payments made on each platform and comparing this information with reports by taxpayers to the tax authorities. Monitoring is possible through mandatory reporting or agreement on information sharing between the tax authorities and payment platform vendors (PayPal, eBay, etc.) However, these solutions do not provide a solution if the means of payment are anonymous, especially if they allow for value to be stored on them without being transferred through platforms with the parties' ID, such as a bank account or credit card.

#### 9.6. Additional risks

In this age of e-commerce, the Internet has become a significant area for conducting financial transactions. These financial areas, which use advanced electronic means of payment, create a potential for crime and make it easier for criminals to commit online fraud, money laundering or terror financing, while at the same time enabling development of security, control and detection mechanisms to address such risk.

Online technology allows, first and foremost, duplication of commercial methods from the real world to the virtual one. Traditional means of payment are enhanced by new developments—such as payment using electronic wallet, online commerce and mobile



payment—which allow one to make online purchases. As these means of payment and funds transfer in cyberspace evolve, criminals are better able to rapidly conduct a string of transactions, through multiple websites and server networks in different countries. These transactions pose a challenge to law enforcement, making it more difficult to cross-check information about activity in websites and networks around the world and to trace the money.

If the payment is transferred to an electronic wallet through a payment card or bank transfer, the buyer maintains anonymity vis-a-vis the merchant - but the bank or credit card company see a transaction made using such means of payment. This fact makes it more challenging to trace money laundering activity online, but in case of a specific investigation, it helps law enforcement agencies to trace transactions made using an electronic wallet. Review of Israel Police data shows that between 2012 and 2016, an average of 20,000 investigations were opened per year for theft of smart devices (phones and tablets). Device theft usually allows criminals to conduct financial transactions using the device and then to destroy them, leaving law enforcement without any real ability to trace them.



## 10. Legal aspects related to promoting use of advanced means of payment

### Advanced payment services

The advanced payment services market is a dynamic and innovative one, including diverse products and services with different attributes - and a common ability to make payments. The Committee, as part of its work, examined whether existing regulation of this market is sufficient, or whether different regulation is called for - through a legal framework suitable for all means of payment which would obviate the need for specific regulation of each one. This framework should be determined, *inter alia*, based on the features of payment services and advanced means of payment and the risk associated with use thereof.

Note that some existing regulatory provisions already apply to certain types of advanced means of payment. Thus, the Debit Card Law, 5746-1986 (hereinafter: "the Debit Card Law") regulates a product – payment card - which is defined in essence and in a forward-looking manner; in terms of interpretation its scope may include various products, including advanced means of payment. A credit card, one of the payment cards defined in the Law, is defined as "a plate or item for repeated use, designed for purchase of assets from a supplier with no immediate payment of the consideration". According to the position of the Ministry of Justice, this definition covers, for example, a cellphone—when used as a platform for sending payments from customer to supplier through the customer's cellphone operator, when the latter provides for settlement of such payments and is a *de jure* issuer of a payment card. For this matter, this is an "item for repeated use" designed for purchase of assets defined in the Debit Card Law as "real estate, goods, money, services or rights". This also constitutes a deferred payment, such as the one made using a deferred debit card, because the customer account is charged once a month, on the date agreed with the issuer.

Even though the Debit Card Law provides an essentially wide definition of "payment card", as set forth above, this definition may, in some cases, be too narrow to include all advanced means of payment. For example, it may be too narrow to include advanced means of payment which do not involve any physical component ("plate" or "item"). Therefore, the legal framework should be adapted to changes in the market for means of payment, so as to apply to all advanced means of payment with their wide range of current and future attributes.

We should add that, when regulating this area, the arrangements that will apply to advanced payment service providers in the areas of AML and terror financing should be established, as well as the consumer protections required and to whom they would apply. In this regard, attention should be given to the following aspects, among others: Contract between user and provider of the payment service; user consent to contracting and their right to terminate it; mandatory disclosures by the service provider; user consent to the basic transaction; liability in case of abuse of the means of payment; responsibility of the service provider for the basic transaction between users; risk assignment between the user and provider of the payment service; dispute resolution mechanism; specifying criminal felonies specific for this area;

data entry error by the service provider with regard to the transaction amount; unloading unutilized funds from stored-value cards.

Payment systems for encouraging development of new payment services and advanced means of payment and for promoting entry of new payment service providers (transaction approval and settlement)

Our interest is in promoting the creation of a centralized retail system for transfer of payments, a secure, reliable system for payments in small amounts, which would allow for immediate settlement and would ensure finality of a transaction made using advanced means of payment while offering wide-spread access, directly or indirectly. Use of a payment system entails practical risk, as described in this report. This includes credit and liquidity risk, cyber risk etc. Based on specification of the system and participants therein and based on analysis of the different risk factors associated with use thereof - legal solutions may be formulated to address this risk.

This may include the conditions which the system should comply with, such as:<sup>44</sup> Formulating rules to ensure system stability, efficiency and proper operation; existence of means to manage risk and backup arrangements in case of emergency. In addition, we may consider specifying rules to mitigate security risk, including rules with regard to identification of system users.

There could be examination of, along with supervision of the system, how to supervise payment service providers and the provisions which should apply to them. The model and desired provisions, as well as answers to questions such as whether threshold requirements should be specified for provision of payment services and what these requirements might be, may be determined based on the attributes of payment service providers and the nature of their operations.

By the nature of things, operation of a payment service provider entails various risks. A possibility that should be considered is specifying arrangements which would mitigate such risks—such as limiting credit to short terms, allocating credit to customers out of their own funds (not out of funds deposited by other customers), and guaranteeing funds that are with the service provider (through a trust account or bank guarantee). These arrangements may be established by the relevant regulators pursuant to their authority. The question may also be discussed of whether, in this regard, we should distinguish between service providers connected directly to the payment system and service providers connected indirectly, through other service providers.

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<sup>44</sup> See, on this matter, section 50b of the Securities Act, 5728-1968.

## 11. Summary and recommendations

Looking forward at operation of advanced means of payment, the Committee envisions a situation which would allow for the development and expanded use of such means of payment. This would be achieved through: (a) Existing means of payment, for example by loading cash onto an advanced means of payment, linking it to a payment cards or linking it directly to a bank account. (b) Development of payment solutions which would serve as host for making payments through, *inter alia*, new providers of payment services. (c) Creating a central settlement infrastructure which would allow for settlement of transactions using advanced means of payment which are not based on payment cards; creating additional infrastructure should expand the range of services offered and should contribute to more competition and efficiency in providing such services.

The Locker report asked the Committee to express its specific opinion on cash alternatives such as electronic wallet and digital check (the Committee examined the digital check means of payment under the definition of “digital debit payment instruction”). The Committee, as part of its examination, is aware of the wide range of advanced means of payment currently in existence around the world and the need for regulation which is comprehensive, enabling and forward-looking, which would allow for evolution of a wide range of services while providing a solution for identified barriers and risks.

With regard to promoting use of the electronic wallet, the Committee believes that this means of payment can be, in the future, an alternative for use of paper-based means of payment, especially for small amounts which are typically paid in cash. The electronic wallet should improve convenience of making small retail payments.

Therefore, these are the guidelines for promoting use of electronic wallets in Israel:

- The electronic wallet should allow for storing or accumulating other means of payment. Thus, it could be used to transfer online payments and as a "payment account", in which the user may store money to be used for future purchases using the wallet.
- Electronic wallets offered by different service providers should be able to communicate with each other and become part of open payment systems which communicate with each other. We can enable this by a fast retail-payment system, which would offer access to supervised entities that are not banking corporations, which offer diverse payment services—including through an electronic wallet.
- Activities involving an electronic wallet should be controlled and supervised in conformity with existing legislation and generally accepted international standards in this field - so as not to destabilize the payment system and not to provide a loophole which would enable money laundering and terror financing, tax evasion and negative impact to customers who use this means of payment.

As for promoting use of digital debit payment instructions, the Committee considers that this means of payment could, in future, provide an alternative to traditional checks, thereby

helping to reduce activity which is not reported to the tax authorities and to reduce the shadow economy by recording of the parties involved in the transaction. However, the conditions for evolution of digital debit payment instructions include creation of an appropriate legal framework for such activity and creation of technology infrastructure for interbank settlement.

A digital debit payment instruction is an instruction that maintains the central advantages of the traditional (physical) check, but the issue, delivery and presentation are conducted via digital means, *inter alia*, through the bank website or through a dedicated website; downloading a custom app to the smartphone or tablet device; and use of special automated workstations at bank branches.

Accordingly, the guidelines for promoting development of digital debit payment instructions in Israel include both preserving, to the extent possible, the advantages and unique uses of traditional (physical) checks as well as reducing the risks and disadvantages associated with using the traditional check, as elaborated in Chapter 5.

In accordance with the foregoing, the Committee is of the opinion that the use of advanced means of payment as part of the payment system in Israel should be promoted by a combined process of regulation of the technological, legal, and consumer infrastructure. Therefore, the Committee recommends as follows:

- **Set up central settlement infrastructure and secure national communication infrastructure for making payments using advanced means of payment.** Create a new, fast and secure retail payment system (hereinafter: "the system") which will make possible the settlement of transactions in advanced means of payment which are alternatives to cash (such as electronic wallet, mobile payments and online payments, including e-commerce), both for transactions that will be carried out at merchants and for person-to-person payment instructions. This recommendation serves as the outline of the future overall direction for the payment system in Israel.

Creation of the new system is designed to achieve several major objectives, including: High availability for making advanced payments (24/7, to the extent possible); increase competition in the payment system by expanding access to payment systems in Israel to entities that are not banking corporations and by expanding the types of transactions which can be made without using payment cards; increase efficiency of the payment process in Israel; and increase resilience of retail payment systems.

Note that the new system would allow for settlement of retail transactions and is not intended as a substitute to the Zahav system (RTGS), which is used for settlement of high-value money transfers, and it is not intended to replace the payment card switch that serves for settlement of payment card transactions.

An international review indicates that 18 countries have a payment system/solution for fast settlement of retail payment instructions.<sup>45</sup> In addition, several countries are in the process of examining/planning/establishing a payment system/solution for fast settlement of retail payment instructions. The most notable are Australia, the US, and the EU as well as advancing the establishment of a “pan-European” payment system for immediate payment settlement.

Immediate payment is a new means of payment for transferring payment in an immediate manner. In this method, the payer is charged immediately and the beneficiary is credited with the amount of the payment immediately, so that the beneficiary can use the money credited to the account immediately, similar to cash.

The features of such payment are: based on a bank account, availability 24/7 for executing payment, immediate authorization of payment execution, payment is irrevocable after authorization, convenient to use and payment is executed automatically (without contact by a person). Immediate payments can be executed by telephone instruction, electronic wallets, mobile payments, and through the customer’s account statement.

In accordance with these features, it appears that immediate payment has considerable potential to serve as an alternative to paper-based means of payment (cash and checks).

There are two approaches worldwide to setting up a settlement infrastructure for immediate payment instructions:

1. Establishment of a new and designated payment system for settling immediate payment instructions
2. Improve and upgrade retail payment systems already existing in the payment system.

The choice is usually made in line with the policy of the central bank (for example, promoting competition in the payment system, business continuity, promoting the use of advanced means of payment and reducing the use of cash) and given the needs of the payment system’s stakeholders.

The review also indicated that payment systems developed in recent years, have been developed under international standard ISO20022.

*In accordance with the Committee’s Interim Report, in January 2016 an internal work team was set up, which examined the issue with an emphasis on learning and surveying fast retail payment systems worldwide, learning the Israeli market’s needs from a fast retail payment, and conducting a survey on “Use of means of payment in Israel”.*

*The team outlined 7 groups of stakeholders with different needs from an immediate payment settlement system: the Bank of Israel, authorities, and government ministries; banks and the Postal Bank; credit card companies; private entrepreneurs; retail payment system; merchants; and private customers.*

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<sup>45</sup> The UK, Iceland, Poland, Sweden, India, China, Japan, Nigeria, South Africa, Mexico, Brazil, Switzerland, South Korea, Singapore, Denmark, Taiwan, Turkey, and Chile.

*Within the framework of the team's work, a survey was conducted on "Use of means of payment in Israel", with the goal of understanding, identifying the needs and conditions under which the public makes use of a range of means of payment, identifying the uses in a range of means of payment by transaction types and amounts, and receiving information on the readiness for a switch to advanced digital means of payment. The survey raised several main findings related to the use of means of payment in Israel including preferences for use of means of payment by type of transaction, preferences for use by amounts, and interest in use of a new payment system.*

*The team outlined the various options for advancing immediate payments in Israel and suggested to adopt the global approach which claims that immediate payments can be promoted by setting up a new payment system designated for fast settlement of retail payment instructions or through improvement and upgrade of retail payment systems existing in the payment system.*

*The team proposed publishing a document with the principles of the business model of the infrastructure for settling immediate payments, which will present the team's work including a review of the payment systems for immediate payments worldwide, the Israeli market's needs, and details of the principles proposed for the payment system's business model.*

The National Cyber Bureau continued promoting and examining the "Secure Transaction" project—a national infrastructure for executing secure transactions via the Internet, which will provide a response for the entire advanced means of payment transaction execution chain, from the end point to settlement of the payment instruction in the payment system. Establishing this infrastructure is a parallel step to advancing the establishment of the new central settlement infrastructure. This secure infrastructure should provide a solution to three major cyber threats to be considered when conducting transactions involving advanced means of payment: (1) Impersonation – taking over the customer's computer and conducting transactions in their name. (2) Forgery / abuse – theft and forgery of information in the communication infrastructure. (3) Denial of service – negative impact to the system and/or disabling the infrastructure which supports execution of transactions involving advanced means of payment. According to the proposal, the infrastructure should be created and owned by the State and users thereof may include individuals, merchants and banking corporations.

- **Draft a legislative memorandum to regulate payment services, payment account and acquirer and issuance services.** The Committee proposes comprehensive uniform regulation of all services delivered by entities providing such services in order to avoid, as much as possible, regulatory arbitrage<sup>46</sup> and to create uniform terms for provision of such services. This move would allow the entry of new players and would contribute to enhanced competition in the Israeli payment system. This comprehensive regulation would apply to all payment service providers, based on international regulation—with an emphasis on the European regulation (Payment Services Directive)—with adjustments

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<sup>46</sup> Gaps between directives issued by different regulators on similar issues.



for the local market referring, *inter alia*, to consumer aspects, the obligation of payment service providers to comply with AML and terror financing provisions, the obligation to comply with information security standards as well as other requirements. In accordance with such regulation, each regulator would ensure that the payment service providers that they supervise are in compliance with the requirements.

*In accordance with the Committee's Interim Report, in March 2016 a Subcommittee was set up, led by the Bank of Israel with participation from the Ministry of Justice, Ministry of Finance and the Israel Antitrust Authority. During the course of the subcommittee's discussions, the principles for regulating payment services were formulated, with the following goals:*

- 1. Enhance competition in the payment services market, by opening the market to nonbank entities.*
- 2. Maintain the stability of the payment services system.*
- 3. Provide consumer protections to customers of payment service providers.*
- 4. Advance technology and business innovation.*

*These principles were published for public comments in October 2016<sup>47</sup> and serve as a basis for writing a draft Payment Services legislative memorandum currently being formulated. The legislative memorandum will include the legislation of license for the Payments Council as well as a chapter on the issue of consumer protections that will be based on the Debit Cards Law, 5746-1986, and the European legislation regarding payment services—the Payment Services Directive (PSD). That chapter will deal with adjusting the execution of a transaction to the forefront of technology and provide a response to the different connections related to carrying out a transaction—among others, the connection between the customer to the payment service provider, the connections between the customer and merchant and the connections among the various payment service providers. Likewise, the Law will provide a response to the risks inherent in promoting the use of advanced payment services and will enable entities that receive an license to access payment systems, and thus assist in, among other things, the expanded activity of such entities and thus allow those entities to be worthy competition for the payment services provided by banking corporations, thus opening this market to competition.*

- **Adapt the existing legal infrastructure to transactions using advanced means of payment.** The existence of an appropriate legal framework will help promote the deployment of advanced means of payment. The legal framework consists, *inter alia*, of the legal, statutory basis for operation of advanced means of payment, the authority to enforce laws and agreements in all relevant cases, the set of rules for operation of advanced means of payment and the consumer protection awarded to users of advanced means of payment.

The primary legal framework which governs operation of means of payment in the Israeli payment system currently consists of the Debit Cards Law, 5746-1986, the Checks

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<sup>47</sup> <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/5-10-16.aspx> (Hebrew version)

Without Cover Law, 5741-1981, the Electronic Check Clearing Law, 5776-1986, and the Banknotes Ordinance [New Version].

The Committee is of the opinion that constant examination and adaptation of existing legislation in Israel is required, in order to support the reforms and changes occurring in the payment system. Such examination will be carried out by the Ministry of Justice and relevant entities, with reference to three key elements: users of advanced means of payment, financial service providers and payment systems. In this regard, legislative amendments should be promoted that support regulation of AML and terror financing aspects of operations of payment service providers, in conformity with accepted international standards of the Financial Action Task Force (FATF).

- **Promote Point of Sale (POS) infrastructure to allow for contactless transactions.** The Committee considers that contactless transactions may enable and promote the entry of advanced means of payment into the Israeli payment system. Efficiency, convenience and speed of use have a key influence on use of advanced means of payment, but these aspects should be considered against preserving the stability of the Israeli payment system and subject thereto. It may also be noted, in this regard, that recommendations made by the Bank of Israel team that examined the transaction execution chain for payment cards, included a recommendation whereby, in order to enable entry of new entities and development of advanced means of payment and new routing alternatives - the POS terminals which form the infrastructure for conducting the payment card transaction should support multiple applications and contactless transactions<sup>48</sup>.

Implementation of the outline of market transition to the EMV standard provides an opportunity to promote use of advanced means of payment by creating infrastructure to support contactless transactions and multiple applications at the POS. Support for such transactions by the infrastructure at the POS will allow, among other things, the promotion of solutions for executing payment transactions of customers at merchants vis-à-vis the fast retail payment system currently being examined (see Recommendation 1).

Contactless transactions in general - and in particular, transactions using NFC (Near Field Communication) - have become in recent years an accepted standard in many countries (including the UK, France, Poland, Turkey, and Canada). Furthermore, NFC has become in recent years the accepted standard in Europe. In July 2014, MasterCard issued a directive, whereby all new terminals to be deployed in Europe would be required to support a contactless function<sup>49</sup> as from January 2016. The company also stipulated that all terminals in Europe would be required to support this function by 2020.

*In accordance with the recommendation of the Committee's Interim Report, in May 2016 the Banking Supervision Department published Proper Conduct of Banking Business*

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<sup>48</sup> See more information on this issue on pages 41-43 of the report "Transaction execution chain for payment cards".

<sup>49</sup> <http://newsroom.mastercard.com/press-releases/mastercard-fast-tracks-mobile-payment-acceptance-europe-helping-europeans-tap-everywhere-2020/>



*Directive 472—Merchant Acquirers and Acquiring Payment Card Transactions*<sup>50</sup>, which refers to, among other things, support for contactless transactions at new POS terminals.

- **Increase the efficiency of the transaction execution chain for digital debit payment instructions.** The Committee considers that given the widespread use of checks in Israel and given the goal of reducing the scope of the shadow economy, a review should be conducted of how to incorporate the digital alternative to traditional (physical) checks—the digital debit payment instruction—as a means of payment in the payment system in Israel. Within this framework, the examination of the transaction execution chain for this means of payment should be enhanced, to include examining the alignment of the legal and technological infrastructures with such activity. To the extent that regulation will be necessary, consideration will be given to whether to adjust existing legislation or to promote separate legislation.

*In accordance with the Committee’s recommendation, in January 2016 an internal work team was established at the Bank of Israel, which carried out a preliminary examination of the “digital debit payment instruction”, including reference to the transaction execution chain for that means of payment and an examination of the Israeli market’s needs. The team’s conclusion from the examination was that there is a need to advance the use of digital payment instructions in a convenient, accessible and consumer-friendly manner. An additional conclusion was to maintain, to the extent possible, the advantages of the traditional check and reduce the disadvantages inherent in it—among other things, to maintain the ability to manage liquidity through controlled endorsement and discounting; digital controls that will assist in reducing technical returns and effective liquidity management by the customer, which will assist in reducing returns due to insufficient cover (there is not enough coverage in the customer’s current account).*

*The Bank of Israel is currently working in collaboration with the banking system to implement the Electronic Check Clearing Law and in parallel is advancing reforms in the activity of the Paper-based Clearing House, including settlement of cellular checks, cancelling the manual settlement session and halting collection vouchers. The main goal of these steps is a switch to full digitization of all paper-based payment debit instructions in Israel. In addition, the National Payment and Settlement Council will be discussing ways to promote digital debit instructions in Israel, including reference to the technology and business perspectives. Likewise, an interministerial legal team was recently established with the goal of examining whether there is a need to create an appropriate legal framework for digital debit instructions.*

- **Promote consumer education and generate consumer trust in advanced means of payment.** The Committee considers that the processes of promoting the use of advanced means of payment need to be accompanied and supported by financial education and public awareness campaigns.

Financial education should be provided to the public, emphasizing the advantages, consumer protection and challenges involved in using advanced means of payment - and

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<sup>50</sup> <http://www.boi.org.il/he/BankingSupervision/LettersAndCircularsSupervisorOfBanks/HozSup/h2498.pdf>  
(Hebrew version)

such education should be delivered in accordance with unique attributes of the various segments of the population.

The Bank of Israel and the relevant entities will continue to monitor developments in advanced means of payment in the Israeli payment system.

## 12. Glossary of terms<sup>51</sup>

Term (in alphabetical order)	Definition
Means of payment	Any financial instrument which allows the holder thereof to transfer funds or to pay for goods and services. Commonly used means of payment include: Cash, check, direct debit, direct credit and payment card.
Advanced means of payment	An electronic financial instrument which allows the holder thereof to securely transfer funds or pay for goods and services.
Electronic wallet	An electronic means of payment which allows for storing or accumulating other means of payment and designed to be used to transfer payment and to purchase goods and services between two parties.
Digital debit payment instruction	An efficient, advanced digital means of payment for direct debit transactions (excluding account debit authorizations that are carried out through the “Credits, Debits, and Payment Transfers” system, operated by Masav), serving as an alternative to the traditional check in Israel.
Payment account	An account held in a customer’s name, used to conduct payment transactions.
Payment card	A means of payment with information about the payer account stored in a magnetic stripe and/or in a chip, which may be accessed through an appropriate device or interface of the payee. This definition excludes cards issued by businesses and that may be used at only a limited number of merchants.
Issuer	An entity that provides means of payment to its customers, approves payment transactions and guarantees the payments approved thereby to the seller of the goods or services.
E-commerce	Conducting electronic transactions, usually through online communication between various devices, without requiring a meeting of buyer and seller.
Clearing House	A central location - or central processing facility - whereby financial institutions agree to exchange payment instructions or other financial commitments. The institutions clear the items exchanged on the agreed date.
Payment system	A system used to receive, transfer or execute payment instructions between system participants, including the means of payment used to transfer or execute payment instructions.
Fast, secure retail payment system	A system for retail use, used to receive, transfer or execute payment instructions between participants in a fast, secure manner - typically

<sup>51</sup> The following definitions are provided for use in this report only.

<b>Term (in alphabetical order)</b>	<b>Definition</b>
	within a few seconds.
Cards' Switch	An entity used by participating institutions (acquirers and issuers) to route messages related to approval and authentication, and which may generate and disseminate clearing and settlement files.
Financial service provider	A financial service provider offers its clients a range of services, in accordance with a license granted there to. These services may include: payment transfer - including direct debit, direct credit, transaction involving a payment card and standing orders - as well as issuer and acquirer of payment cards.
Settlement	An action which releases a liability between two or more parties, related to transfer of funds, securities or other financial assets.
Contactless transactions	Contactless payment transactions, conducted through a designated component embedded in the means of payment and through a custom reader, which can receive the payment instruction transmitted there to.
Communication channel	A channel which may be used to transmit information, including payment instructions, between the payer and the cards' switch or the payment system.
Payment service	Services provided by financial service providers. These include transferring payments—including direct debit, direct credit, transaction involving a payment card and standing orders—as well as issuing and acquiring of payment cards.
Mobile payments	Payments using a cellphone or smartphone, including payments using an app installed on a smartphone or through access to the account of the payer.

### 13. Committee members

Name	Organization
Irit Mendelson	Committee Chair - Bank of Israel
Batya Harari	Prime Minister's Office
Gil Bareket	Israel Money Laundering and Terror Financing Prohibition Authority
Ayelet Minster-Sher	Israel Tax Authority
Rani Neubauer	Ministry of Justice
Liron Mautner Lugasi	Ministry of Justice
Dana Heller	Antitrust Authority
Elad Makdasi	Antitrust Authority
Tal Goldstein	National Cyber Bureau
Mirit Kagrilitzki	National Cyber Bureau
Ron M.	National Information Security Authority
Liran Haim	State Attorney's Office
Shimon Ben-Shoshan	Israel Police
Ronit Chitayate	Bank of Israel
Noa Sheshinski	Bank of Israel
Gil Polak	Bank of Israel
Rachel Yaakovi	Bank of Israel
Ronen Nissim	Bank of Israel
Nir Levy	Committee Secretary - Bank of Israel

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## Appendix A—Regulating the Payments Market in the EU

In November 2007, the Payment Services Directive (PSD) was published, with the goal of creating a uniform legal basis for the European Union's payment market, in order to allow the execution of crossborder payments in an efficient and secure manner. The Directive regulates, through a set of directives, a uniform license for all payment service providers in the EU and refers to 3 main areas:

- Uniformity in requirements for entry into the field, mainly requirements facing financial entities that are not banks.
- Transparency of data submitted by the entities that supply the payment services in all EU countries.
- Uniformity in rights and obligations of service providers and users in the EU.

The Directive imposes regulatory requirements on all payment institutions—banks and nonbanks—such as issuers of means of payment and acquirers of payment transactions and cellular operators that supply payment services. Likewise, the directive regulates in it the requirements of capital, protection of customer funds, reporting, and rules of business conduct. The PSD requirements have been implemented in EU countries since November 2009, though domestic legislation or regulation.

The business and technology developments in the EU, beginning with the adoption of the PSD, again placed on the public agenda the issue of payments in general, and electronic payments in particular. Therefore, in July 2013, a decision was reached in the EU to regulate anew the payment services and the issue of interchange fees, in two bills that impact on the area, as complementary steps to the need for enhanced competition in the European payments market, by expanding the number of participants and reducing transaction costs.

- a. Amending the PSD and publishing PSD2<sup>52</sup>, which refers to, among other things, the addition of payment services such as information services and activity initiatives, bringing it in line with customers' new needs, updated consumer protections, increased information security requirements regarding the manner of executing the transaction, reducing transaction costs, transparency in fees and additional updates. In November 2015, the said amendment was published and a period of two years was given for legislating the required amendments in EU countries.
- b. In April 2015, a directive was published that regulates directives regarding interchange fees of card-based payment transactions.<sup>53</sup>

In September 2009, a revision was published to the E-money Directive (EMD).<sup>54</sup> The goal of the revision is to encourage the growth of the e-money market, with most of the changes delineated being in the consumer area and their goal being to make it easier for electronic money issuers. The Directive presents threshold requirements for all e-money issuers, including their approval and registration by the authorities, and the definition of appropriate standards for institutions that issue e-money.

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<sup>52</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L2366&from=EN>

<sup>53</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0751&from=EN>

<sup>54</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:267:0007:0017:EN:PDF>

Among the main updates of the Directive is a revision of the definition of e-money so that it also includes e-money loaded on a device or designated item as well as e-money loaded remotely on a server and managed by the e-money holder, who uses the account designated for that. The definition noted is broad so as to allow for technological ventures that may be developed in the future.

The Directive notes that inherently, and due to caution, only credit institutions and other entities that received a license to issue e-money are permitted to issue this means of payment. The directive emphasizes that an e-money issuer is required to maintain its value, without any expiration date for holding it. The directive notes that the holder of e-money can redeem it at any time in accordance with its value, while fees may be charged in respect of the redemption under certain circumstances.

The directive prohibits the holder of e-money to demand interest or any other profit from the issuer related to the length of time that the holder has the e-money.

The contract between the e-money issuer and the holder is to include the redemption terms, including reference to fees, with such terms clarified to the holder prior to committing to the transaction/contract with the issuer. The directive thus asserts the requirement for transparency.



## **Appendix B—Advanced means of payment: The FATF recommendations related to money laundering**

The Financial Action Task Force (FATF) organization is an international task force whose goal is to develop and promote global policy for combatting money laundering and terrorism financing. Since its founding, the organization has led the international effort by setting standards in the area, which countries are obligated to adopt and implement. In 2013, the organization published a document dealing with advanced means of payment, including prepaid payment cards, payments via mobile and payment services based on the Internet in accordance with a risk based approach. The document was written in view of the rapid developments in the area of advanced means of payment and from the concern that they will be used for money laundering or terror financing. In the document, the organization provides suggestions for countries on issues that should be taken into account when they decide on which entity will be subject to an AML regime related to advanced means of payment.

### The level of AML and terror financing regime is proportional to the level of the risk:

The level of effort that the country should expend on a framework of an AML and terror financing regime has to be proportionate to the level of risk from advanced means of payment. For example, to the extent that the means of payment serve in a manner similar to the operation of a bank account, regulation should be adopted that is similar to that imposed on banks, including imposing know-your-customer obligations. In particular, when the advanced means of payment increasingly serve as a prolonged relationship in the manner of deposit services, it is required to impose AML and terror financing obligations similar to those imposed on “classical” financial entities.

### Benchmarks that switch advanced means of payment to similar to a bank account:

- 1.1 The means of payment can be loaded an unlimited number of times
- 1.2 There are no limits on the quantity (how many or how few) of funds that can be held in the account, loaded, or withdrawn
- 1.3 Fund transfers can be executed or received crossborder or within the country in which the product is issued.
- 1.4 The advanced means of payment can be funded by cash, and cash can be withdrawn through the ATM network
- 1.5 The ability to add or withdraw funds to an account via cash or cash equivalent, either directly or indirectly, through another supplier or intermediary.<sup>55</sup>

### Mobile payments:

Mobile payments as currently proposed are the result of an evolutionary process that began with the spread of use of mobile phones worldwide beginning in the 1990s. In the first stage, banks used the new technology termed “mobile banking”.

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<sup>55</sup> <http://www.fatf-gafi.org/media/fatf/documents/recommendations/guidance-rba-npps.pdf> - Page 33.

The second stage arrived due to further developments of mobile phones and use of electronic money products. This development led to various entities trying to use these products within the framework of transactions executed using mobile phones. In view of mobile money products being connected at times to prepaid payment accounts, nonbank entities were very active in the field. In effect, communications providers became successful issuers of mobile money.

At that stage, various countries dealt with these developments. Some allowed the use of such means without specific regulation, others regulated the use by imposing specific licensing or registration requirements, and some prohibited their use altogether.

Currently, financial institutions that allow mobile money products can be traditional currency services providers, banks or financial depository institutions, or nonbank financial services providers, defined in the FATF recommendations as Money or Value Transfer Services.

Many entities can be involved in providing mobile payment services. The role of the various entities changes in accordance with the business model used. Various roles can be carried out by one entity or through agents. This fact can create regulatory difficulty in the decision regarding the appropriate location of responsibility for the controls of an anti-money laundering or combatting terrorism financing regime.

Entities that may be involved in providing cellular services could be one of these three:

1. MNO (mobile network operator)—the entity that provides the technical platform that allows access to funds through the mobile phone.
2. Distributor (including retail)—the entity that sells, or organize the issue of the funds on behalf of issuer to consumers, to the extent that such funds can be used for payments. Distributors are likely to also offer a wide range of services to their customers, such as technical support.
3. Electronic money issuer—the entity that issues the electronic money. In this regard, electronic money is the registration of funds or value available to the customer and stored in a payment device such as a chip on a prepaid card, mobile phone, or on computer systems such as a nontraditional account with a banker or nonbank entity.<sup>56</sup>

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<sup>56</sup> <http://www.fatf-gafi.org/media/fatf/documents/recommendations/guidance-rba-npps.pdf> Pages 7–9.