

Review of the Promotion of an Immediate Payment Infrastructure in Israel's Payment System

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Bank of Israel

Accounting, Payment and Settlement Systems Department
Payment and Settlement Systems Division
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Executive Summary

The Bank of Israel supports the development of an immediate payment infrastructure that will make it possible to expand the range of payment options available in the payment system, such as enable customers to make direct payments from their accounts, conveniently and efficiently 24/7.

The Bank believes that the development of the infrastructure - in several stages and in accordance with international standards - will enable a more accurate alignment with the needs of the Israeli economy.

The infrastructure will allow customers to make **immediate payments**¹ directly from their accounts, such that the funds will be immediately visible and available for the payee's use - within a few seconds; customers will also be able to transfer **payments between different electronic wallets** regardless of the means of payment linked to the electronic wallet used by the customer, inter alia, from person to person (P2P), from person to business (P2B), and from business to business (B2B). The infrastructure will also enable payments to be made between institutions, including government ministries; to transfer **requests to pay** between users; to **expand services for the transmission of extensive information or files together with the payments** - such as: bill payments, providing a DVP (delivery versus payment) option; **connecting the Israeli immediate payment infrastructure to similar infrastructures around the world**, which will enable cross-border payments.

The following are the main steps to promoting the implementation of an immediate payments infrastructure in Israel:

1. In November 2017, the Bank of Israel published a public consultation document on the establishment of an infrastructure for immediate clearing of payments in Israel,² which included the basic principles for an infrastructure for immediate clearing of payments in Israel. The Bank received several responses to the public consultation document from

¹Immediate payment is a means of payment in which the payment initiator is charged immediately for the payment amount and the payment recipient is credited immediately with the payment amount. This enables the payment recipient to use the amount of money credited to his account immediately similar to payment via cash.

²<https://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/15-11-17.aspx>

various entities, some from Israel and some from abroad, focusing on three main categories: (a) development of an infrastructure for immediate clearing of payments, (b) development of services related to the infrastructure's activity with an emphasis on developing a platform that will allow a gateway to the new infrastructure; and (c) general reference to the issue.

2. Some of the recent reforms in the payment system and the publication of the public consultation document led various payment system stakeholders to support the establishment of an immediate payment system as well as to examine the provision of various solutions along the immediate payment transaction chain. The main development in the area is the initiative by Masav (Israel's ACH) **to implement and outline the specifications for an immediate payments solution based on the existing ACH infrastructure**. This project is in advanced stages and the Bank of Israel is accompanying in order to ensure that the service will be stable and efficient, will provide a response to market needs, and will be in accordance with international standards. The Bank of Israel guided the Masav system operator and participants to prepare to enable their customers to receive payments via the immediate payment service, no later than by the end of August 2020.
3. A comprehensive examination conducted by the Bank of Israel indicates that **to the extent that the domestic system operator joins with an international entity with experience**, it will allow an efficient integration of the immediate payments infrastructure in Israel's payment system. This is due to the international experience, shortened timetables, implementation of international standards such as ISO 20022, and the future connection to the immediate payment infrastructure in the world for the execution of cross-border payments
4. **The Bank of Israel is examining additional steps to promote innovation and increased efficiency of the payment system in general and of immediate payments in particular, with emphasis on the following issues:** cross-border payments; the need and the appropriate method for managing a central database/managing identities in the payment system in Israel; the need for a white label application (Generic electronic payment wallet); regulation of the execution of payments at merchants, including the

removal of barriers to conducting them digitally; and assistance with preparing to carry out digital payments in services provided by various government ministries

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Introduction

In recent years, payment systems have been gaining momentum worldwide. We see a wide diversification of services and entry of new players into all levels of the transaction execution chain of the payment system, due to technological and regulatory developments.

In recent years there has been a rapid development in the retail payment system domain for real-time settlement. The use of electronic means of payment has been expanding and increasingly substituting paper-based transactions and plastic cards, such as cash, checks and debit cards. In many countries, immediate payment infrastructures have been set up, and in other countries, such infrastructures are at various stages of planning and development.³

The cross-border payments sphere - which was operated primarily by the banks - has seen the entry of multiple FinTech companies, which offer different target populations cross-border payment transfer services (usually by offsetting and netting between accounts with no actual transfer of funds). Several ventures have also been developed by countries which have set up, using different technologies (such as distributed ledger technology), links between their payment systems (including Singapore, India and Canada, Japan, Thailand and the Scandinavian countries).

The Bank of Israel views the establishment of an immediate payment infrastructure in the payment system as a key milestone to creating an ecosystem to improve the efficiency and stability of the payment system in Israel.⁴ This will allow financial entities simple access to the payment infrastructure, and will also lead to the improvement of the financial services offered to the public in Israel, inter alia, due to the following characteristics:

- ✓ The establishment of the immediate payment infrastructure in Israel's payment system presents an opportunity **to promote a forward-looking infrastructure**, which will also

³According to the global survey, immediate payments are already available in many countries - England, Iceland, Poland, Sweden, Finland, India, China, Japan, Nigeria, South Africa, Kenya, Mexico, Brazil, Switzerland, South Korea, Singapore, Sri Lanka, Denmark, Spain, Taiwan, Turkey, Chile, Colombia, Nicaragua, Thailand, Australia, Hong Kong, the Philippines and the United States; there is also a pan-European system.

⁴The Payment Systems Law, 2008 regulates the powers of the Bank of Israel with regard to payment systems. The Bank of Israel Law, 2010 also states that one of the functions of the Bank of Israel is to "regulate the payment and clearing systems in the economy, in order to ensure their efficiency and stability, including in accordance with the Payment Systems Law, 2008".

take into account future developments and expected reforms. The various services that will be offered on top of the new infrastructure should be implemented gradually.

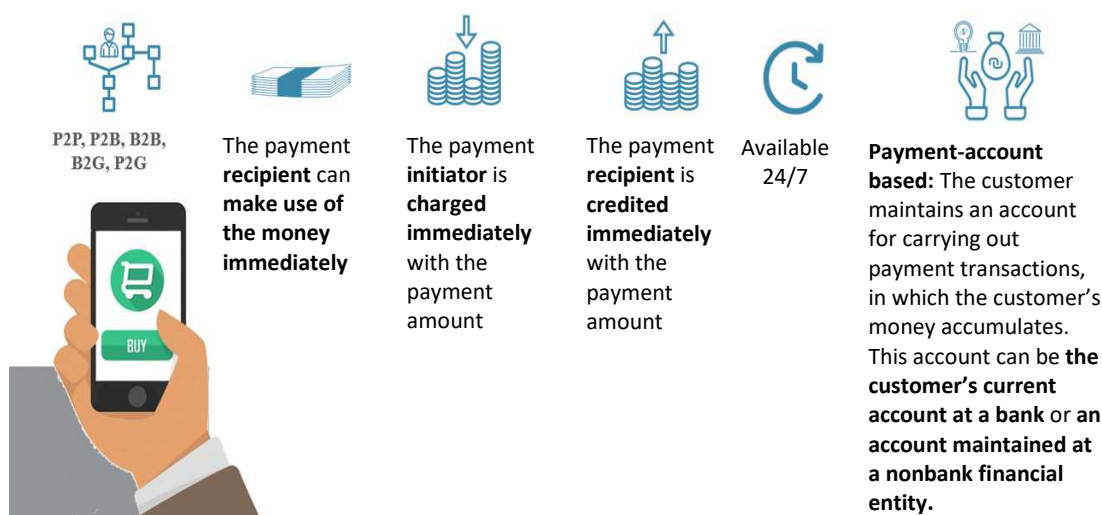
- ✓ **Innovation** - development of advanced means of payment and advanced payment services, including electronic wallets and payment applications for various entities. We believe that the next generation of immediate payments will be realized through the **integration of the infrastructure with Open Banking - for example, through open APIs**, which will enable new business models and an advanced customer experience.
- ✓ **Competition** - providing direct or indirect access to a variety of entities in the payment services area, depending on their characteristics, including payment service providers and FinTechs, which will be able to provide various services along the immediate payment transaction process.
- ✓ Establishing an infrastructure for immediate payments in Israel's payment system is an **opportunity to promote new technologies**, which will enable the development of new services and means of payment in the payment system, streamline business processes and comply with international standards (such as ISO20022). **Implementation of international standards in the new infrastructure** is extremely important, both because of the need to promote competition in the payment system in Israel by the entry of domestic and international players and because of the future need to connect the Israeli immediate payment infrastructure to similar infrastructures around the world, allowing for cross-boarder payments.
- ✓ **Alternative to cash** - an electronic alternative to using cash, which can help implement the Cash Law and reduce the use of the "Shadow Economy". The immediate payment system will also help increase the volume of contactless payments in routine and emergency situations.
- ✓ Support for executing transactions within 5-7 seconds and hundreds of transactions per second, similar to advanced systems around the world.
- ✓ **Quick time to market**, based on existing work interfaces and work processes in the payment system - which may significantly reduce the costs of implementing the infrastructure in the payment system and potential participants, as well as increase the

odds of rapid implementation of the project, given the significant regulatory burden imposed on banks and credit card companies.

- ✓ Adequate solution to **information security and business continuity issues** of the infrastructure, derived from the unique characteristics of immediate payments both on the infrastructure operator side and on the participants' side.
- ✓ The ability to provide overlay services, which are provided by the world's advanced infrastructure - such as the **Mobile Gateway module**, which makes it possible to **initiate payments through commercial applications** directly with the payment infrastructure, while providing an advanced customer experience. For example, a retail chain may provide its customers with an app that provides **an advanced shopping experience**, at the end of which the customer makes the payment immediately, at the touch of a button: the network application contacts a **mobile gateway** service of the infrastructure and initiates payment (similar to the initiation of payments in Open Banking) **without additional mediators**.
- ✓ **Reducing credit costs for businesses** - streamlining the clearing processes in the payment system by crediting the funds to the payee's account on the day the transaction was made, while boosting liquidity and reducing credit costs to businesses.
- ✓ **Redundancy** - the creation of a new payment switch, which will allow to boost the payment system's redundancy.
- ✓ It is important to promote cooperation between various government entities, which will help push **financial education and proficiency for the wider public** and boost familiarity with, and trust in, the new means of payment.

What is immediate payment?

Immediate payment is a new means of payment in which the payer of the payment is immediately charged the payment amount and the payee is immediately credited with the payment amount. This allows the payee to make immediate use of the amount of money credited to his account—similar to cash payment, and as opposed to most means of payments currently in wide use in Israel (such as checks, bank transfers through Masav, deferred debit card, prepaid card, etc.)—in which the payee is not instantly credited with the funds.



Immediate payments provide benefits to both the customer and merchant:

Benefits to customers

1. Payments are made conveniently, efficiently and inexpensively 24/7.
2. Payments are made between people (P2P) and between people and businesses (P2B).
3. Small retail payments are made digitally, without the use of cash.
4. Transition from deferred payments to immediate payments, which can help consumers manage their finances better.
5. Transactions are documented.

6. Receiving value-added services from FinTechs and private companies (cost comparison, customized advertisements, coupons, invoice comparison, etc.).

Benefits to Merchants

1. Boosting liquidity and reducing credit costs by immediately receiving payment for goods or services, unlike other non-cash means of payment, which are commonly used in Israel.
2. Reducing merchant fees and cancelling interchange fees.
3. Reducing fees involved in the use of cash (transfer, storage, checking) and returned checks.
4. Ensuring immediate payment, mitigating the risk of counterfeit money, uncovered checks, etc.
5. Transaction documentation.
6. Receiving value-added services from FinTechs and private companies (sending customized advertisements to customers, coupons for use by the merchant, analysis of transactions made at the merchant, etc.).

The need to promote immediate payments in Israel

The Bank of Israel examined in depth the issue of the immediate payments infrastructure and whether it is necessary to implement a similar infrastructure in Israel, inter alia, by reviewing the activities and business- and technology models of payment infrastructures worldwide, speaking to various representatives of central banks around the world, conducting consumer surveys on the use of payment means and holding dedicated meetings with various stakeholders in Israel's payment system.

The Bank of Israel concluded that the Israeli payment market needs the following:

- **The payment recipient is credited with the funds on the same date on which the transaction has been made.**
- **Ability to make payments conveniently and efficiently 24/7 at low transaction costs,** receive the payment quickly (within seconds) and make small immediate payments from person to person and from person to business.

- **Boost competition in the payment system and improve service** - inter alia through the entry of new players, which will offer immediate payment solutions across the entire transaction execution chain.
- **Decreasing the use of the “Shadow Economy” by reducing the use of paper-based means of payment.** Immediate payments are used as a substitute for cash, since the money is transferred from the payer to the payee very quickly - within seconds - and the payee can use it immediately, much like cash.
- **Boosting liquidity and reducing credit costs for businesses** by immediately receiving payment for goods or services, in contrast to other non-cash means of payment⁵ commonly used in Israel.
- **Creating an infrastructure that will allow the clearing of advanced means of payment**⁶ - Existing and future means of payment - and will allow the clearing of payment orders which were given through payment applications of various entities.

⁵The following are some examples of the date on which the business' account is credited with interbank transfers made by various payment means:

1. Bank transfer through Masav - shows in bank statements the next day (T+1) at the value date of T;
2. Check - shows in the bank statement the next day (T+1) at the value date of T, but the final payment is received at T+3; i.e. - the business can use the funds only three days after the check has been deposited;
3. Deferred debit card - average of 15 to 17 days;
4. Debit card - three days from the transaction transmission date.

⁶In the discussion of whether the ZAHAV system (Israel's RTGS) can be used as an infrastructure for making small immediate retail payments, it appears that **this is impossible**, among other things, for the following reasons:

1. The ZAHAV system does not function 24/7.
2. The ZAHAV system is not used as a switch for making transactions between two parties. The system performs final settlement of payment orders between two bank accounts managed by the Bank of Israel.
3. The ZAHAV system is not connected to points of sale (POS) in businesses for the purpose of carrying out retail payment transactions in the businesses. Thus, there is a need for an infrastructure for retail payments, which will allow, immediate payments at the business which will receive a transaction confirmation, within seconds.
4. According to a review of global trends, there are two main approaches to establishing an infrastructure for clearing immediate payments:
 - Establishment a new, dedicated payment infrastructure for immediate clearing of retail payment orders;
 - Improving and upgrading existing retail payment systems in the payment system.

- **Boosting redundancy in the payment system in Israel** and maintaining continuity of payment means by establishing an additional switch for transactions that will be made by advanced means of payment (which are not based on debit cards).

Following the said process, in November 2017, the Bank of Israel published a public consultation document on the establishment of an infrastructure for immediate clearing of payments in Israel.⁷ The public consultation document was the first step towards examining the establishment of an advanced, efficient and reliable clearing infrastructure in the payment system in Israel, which will be added to the existing payment and clearing systems and used for clearing immediate retail payments, comparable to similar infrastructures in various countries around the world.

The Bank received several responses to the public consultation document from various entities, some local and some foreign.

The public's responses focused on three main categories:

- (a) **Development of infrastructure for immediate payment clearing** - several local and international entities have expressed initial interest in developing an infrastructure for clearing immediate payments.
- (b) **Development of ancillary services to the infrastructure activities emphasizing the development of a platform that will enable connection to the new infrastructure** - Several entities have expressed interest in developing ancillary services for the immediate payment infrastructure, such as implementing international standards and providing services to participants interested in connecting to infrastructure with a straightforward, quick solution, while reducing the changes in the participants' business workflows and core systems.
- (c) **General statement on the issue** - Several private entities, consultants and business companies have sent a general statement on the issue of promoting immediate payments in Israel. These entities have expressed their position on the appropriate way to promote the assimilation of immediate payments in Israel, inter alia, from regulatory, legal, business and technological aspects.

⁷ <http://www.boi.org.il/en/NewsAndPublications/PressReleases/Pages/15-11-17.aspx>

Some of the recent reforms in the payment system and the publication of the public consultation document motivated various stakeholders in the payment system to support the establishment of an immediate payments infrastructure as well as to examine the provision of various solutions across the immediate payment transaction chain.

The main development in the field is Masav's (Bank Clearing Center, Israel's ACH) initiative to develop an immediate payment service, a service that has been launched in recent months. The service was developed on top of Masav's existing infrastructure and is based on a local standard.⁸

The Bank of Israel instructed the operator of the Masav system and its participants⁹ to prepare to enable their customers to receive payments through the immediate payment service until the end of August 2020. The provision of the service by all the banks will help implement immediate payments in the payment system, render payments more convenient, reduce the costs to businesses and also allow to provide liquidity to businesses on the transaction date.

The Bank of Israel regulates the immediate payments service developed by Masav, monitors the progress of the project and takes further steps to ensure that the service is provided in accordance with the Payment Systems Law and the Principles for Financial Market Infrastructures (PFMI), including the implementation of international standards, open and fair access both to banking and to non-banking entities, as well as monitors and supervises the service to be provided to customers of banking corporations.

⁸ According to the Bank of Israel, Masav is prepared to enable support for the conversion of payments made in accordance with ISO20022 for entities which will wish to connect to the system in that manner.

⁹Excluding banking corporations that were cleared for mergers and foreign banking corporations. These may request exemption from the application of the guidance.

Additional, complementary steps for promoting the Immediate Payment infrastructure in Israel

The Bank of Israel will continue to consider additional measures to promote innovation and efficiency of the payment system as a whole and immediate payments in particular, while cooperating with various stakeholders in Israel's payment system. These measures will lead to the development of additional measures, which will help implement the Immediate payment infrastructure in Israel.

In the near future, the Bank of Israel will focus on examining the following topics:

1. Continued monitoring of **implementation of international standards (ISO20022)** at the core of the immediate payment infrastructure and its participants (execution of payment orders under the international end-to-end standard, in order to allow for Israel's payment system to conform with accepted global standards; **extending the services for transferring extensive information or files with the payment**, such as bill payments. In the future, the implementation of international standards will enable **to connect Israel's immediate payment infrastructure to similar infrastructures around the world, enabling cross-boarder payments.**
2. Consider more extensively the need and the appropriate method for **managing a central database / "identity management" in Israel's payment system**, including addressing the management of databases around the world, the right entity to manage the database in Israel, legal aspects and other alternatives.
3. Consider more extensively the need to implement a **white-label electric wallet** application that will allow financial entities to offer various services based on the immediate payment infrastructure in Israel's payment system, including initiating payments and information services.
4. **Regulation of payments for merchants**, including removal of barriers for the use of digital payments by merchants.
5. **Assistance to the government in preparing for implementing digital payments** in services provided by the various government ministries.