



Bank of Israel  
April 2023



# Potential Scenarios for Deciding to Issue a Digital Shekel





## Bank of Israel - The Bank of Israel Steering Committee on the Potential of a Digital Shekel Issuance

April 2023

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\* Our thanks to Doron Hershko from the Deputy Governor's Office for his  
assistance in gathering material and in editing this document.



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## Main points

- The Bank of Israel is preparing an action plan for the potential issuance of a digital shekel (SHAKED), despite the fact that a decision has not yet been made as to whether the Bank intends on doing so. The questions of the circumstances under which it would be decided to issue a retail CBDC is a complementary important discussion to the significant work being done on the business and technological specifications.
- This document discusses the conditions that would enable or support a decision to issue a Bank of Israel digital currency at some point, and does not discuss the legal framework and public dialogue that would be necessary.
- This document indicates a number of variables that may have an effect on the Steering Committee's recommendation:
  - **CBDC issuances by other countries** – A decision to issue by the US or the European Union, or by a significant number of other developed economies, would be an important factor to the issuance decision in Israel. The probability of such a development in the next few years is significant.
  - **Decline in the legitimate use of cash and its acceptance<sup>1</sup> in transactions in Israel** – According to our data, cash is still used in Israel as a significant portion of the consumer transactions, but there is some possibility that the use of cash as a means of payment will decline in the future, with the expanding adoption of payment applications and of electronic means of payment in general. The public's payment habits may change more rapidly than what we had previously expected. As a result, the public's ability to make transactions using central bank money may decline rapidly. The public's ability to use central bank money is important both in maintaining the public's trust in other means of payment, since it can always convert those into central bank money, and in order to maintain individuals' and businesses' ability to make transactions while minimizing the intervention of private entities. We must therefore monitor developments in the use of cash as a means of payment, and

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<sup>1</sup> Acceptance- The preparedness of any entity to accept a particular means of payment.



examine the extent to which the ability to make (legitimate) transactions using cash is maintained.

- **Significant penetration of stablecoins or other private means of payment as a broadly used means of payment** might impair the payment system. A stablecoin that isn't pegged to the shekel might also harm the monetary transmission. At this point, there are no signs of substantial adoption of stablecoins as means of payment in Israel. However, there might be a case that the paying habits of the public would change rapidly, for instance in a scenario of an issuance by a major private sector entity.
- **The extent of competition in the domestic payment system-** Continued concentration in some segments of the domestic payments system due to the dominance of a small number of participants, incomplete competition in the deposits market, and relatively high entry barriers may justify the issuance of central bank's digital currency in order to support competition in the payments system and in the financial system in the digital era.
- **Technological developments in the payments system** – It may turn out in the future that there would be significant justification for issuing a digital shekel, since it would be able to serve as an efficient and secure platform for advanced technological use cases.
- The Bank of Israel must be prepared to make a decision regarding the issuance of a digital shekel, if the variables listed above support it. The Steering Committee will therefore monitor the developments in the aforementioned aspects on a periodically basis.



## 1. Background

While about 90 percent of central banks are currently examining the potential issuance of a digital currency (CBDC)<sup>2</sup> at various different levels of advancement<sup>3</sup>. Only a small number of central banks have so far advanced to the point of issuance or performing pilots that include public engagement.<sup>4</sup> The central banks in developed economies repeatedly emphasize that they have not yet decided whether to issue a digital currency. Likewise, the Bank of Israel has not yet made a decision on whether it intends to issue a digital currency.

Alongside the significant work on the business and technological specifications of CBDC should one be issued, and the statement that a decision has not yet been made on whether to issue one, there must be a complementary discussion on the circumstances under which it may be decided on the issuance of CBDC. In the extreme case, there might be an announcement that no digital currency will be issued in the future (under any circumstances). However, in every other case, the central bank must discuss the question of whether there are conditions that in the case that they would occur, they would impose or justify a decision to issue such a currency. Such conditions may be necessary—such that if they do not exist, it would not be right to decide on an issuance, or sufficient—such that if they do exist, it would be preferable to issue CBDC. In other words, we can say that there may be conditions that would require the Bank of Israel to adopt a “defensive” approach, in which it would be necessary to issue CBDC, or an “offensive” approach, in which it would be worthwhile to issue CBDC.

Alongside the discussion of the conditions themselves, we must also attend to assessing the time frame in which those conditions may be met. We must comprehend whether it is likely that the conditions will be met in the very near future—for instance within 1–3 years—or just in the more distant future. This assessment will also have an impact on the work plan and on the urgency that is necessary in order to be prepared to decide on a potential issuance of CBDC in Israel.

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<sup>2</sup> A. Kosse and I. Mattei (2022).

<sup>3</sup> Research only / Technological trials / pilot

<sup>4</sup> CBDC has been issued in the Bahamas and in Nigeria. Other countries are in advanced pilot stages, the most prominent of which is China.



The discussion of the conditions under which it would be decided to issue CBDC involve a discussion on the adjustment of the existing legal framework for such an issuance, particularly regarding the central bank's authority to decide on issuing such a currency. In this context, it should be noted that a BIS survey from 2021 that included 81 central banks from around the world<sup>5</sup> showed that there is variance in the central banks' assessments of their legal authority to make such a decision, and that in only a small number of countries the central banks believe that the current legal situation enables them to issue digital currency. Beyond the legal aspect, the question of deciding to issue is a matter that may require broad public dialogue.

This document focuses on the various conditions that may influence the Steering Committee's recommendation to the Governor of the Bank of Israel on the matter. A decision to issue a digital currency will also need to take into account the inherent risks<sup>6</sup> and the costs of issuing and managing the digital shekel compared to the expected benefits. In addition, it will be necessary to examine the existing and the necessary legal framework in Israel with regard to the issuance of a digital shekel, and the public dialogue that is necessary prior to making a final decision. These are not discussed in this document.

## The situation abroad

Among advanced economies that are at different stages of the examination of a potential issuance, there is a significant variance in their approach to the process and in their attitudes toward the conditions or potential catalysts for making a positive decision to issue CBDC. The following are a number of examples:

- 1.1 The European Central Bank (ECB)** is taking a positive approach to the potential issuance of a digital euro, stating that the issuance of such a currency is essential to the stability and competitiveness of the payments system, economic stability,

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<sup>5</sup> Economies that together cover about 76 percent of the global population and about 96 percent of global GDP.

<sup>6</sup> For instance, the risk of harming the banking system – see Bank of Israel (2021b).



and European sovereignty. Accordingly, the ECB is adopting a multistage approach. Between 2021 and 2023, they are carrying out an examination to define the characteristics of a digital euro, and at the end of 2023, they will begin a process of the implementation of the necessary technological and business aspects, which will last another three years. Toward the end of the process, they are expected to make a final decision on issuing a digital euro.<sup>7</sup>

**1.2 In the US**, President Biden signed an Executive Order on Ensuring Responsible Development of Digital Assets<sup>8</sup> in March 2022, which addressed the principles for the responsible development of digital assets, and ordered the government departments to prioritize the research on the issuance of CBDC. In addition, the Treasury Department published a report in September 2022 that discussed the future of money and the payments systems.<sup>9</sup> The report included a recommendation that clearly encourages the Federal Reserve to continue studying and examining all technological and business aspects of the possibility of issuing CBDC, while involving representatives of various official agencies. The Fed is currently executing and examination of the issue which include technological experiments together with the academic sector (for instance, Project Hamilton, which the Boston Fed is conducting with MIT).<sup>10</sup>

**1.3 The Bank of Canada** announced<sup>11</sup> that it currently does not intend to issue CBDC, and defined their process of examining as a “contingency plan”, with a general definition of two scenarios, that the realization of which would lead to a reexamination: a decline in the volume of the use of cash to the point where citizens would no longer be able to use it as a means of payment, and the other scenario is in which one or more private digital currencies becomes a significant alternative to the Canadian dollar (as a means of payment or as an asset).

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<sup>7</sup> Digital Euro Stocktake, January 16, 2023.

[https://www.ecb.europa.eu/paym/digital\\_euro/investigation/governance/shared/files/ecb.degov230116\\_eurogroupstocktake.en.pdf](https://www.ecb.europa.eu/paym/digital_euro/investigation/governance/shared/files/ecb.degov230116_eurogroupstocktake.en.pdf)

<sup>8</sup> The White House (2022). Executive Order on Ensuring Responsible Development of Digital Assets. <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/>

<sup>9</sup> US Department of Treasury Report (2022).

<sup>10</sup> Federal Reserve Bank of Boston and Massachusetts Institute of Technology Digital Currency Initiative (2022).

<sup>11</sup> Bank of Canada (2020).

<https://www.bankofcanada.ca/2020/02/contingency-planning-central-bank-digital-currency>



**1.4 Sweden** is one of the advanced economies that has progressed the most in the process of examining and designing CBDC. The Sveriges Riksbank has been working on this issue since 2017, and recently completed the second stage of a pilot program that included an examination of technological and legal issues. The main motivation for the examination is the sharp decline in the usage of cash, and the problematic situation that the central bank sees in a decline to the point of potential unavailability of central bank cash to the public. For approximately two years and in parallel to the work done on the project by the central bank, a governmental inquiry was executed in the payments market, and the conclusions of the committee was published last March. The findings show that the need for CBDC in Sweden (e-Krona) isn't strong enough at this point. <sup>12</sup>

**1.5 In England**, a joint task force of the Bank of England and HM Treasury was established to examine this issue. In February the task force published a consultation paper reflecting that the Bank and the Treasury believe that there is a case for proceeding to the next step in the preparedness to issue a digital pound, in light of their evaluation that it will be necessary in the future, among other things due to the advantages that a digital pound would offer. <sup>13</sup>

**1.6 Denmark** displays a slightly different approach. The payment system in Denmark is highly advanced, and for now the central bank opted not to actively engage in an inquiry of a CBDC, as it doesn't see a substantial added value in a CBDC compared to the current situation<sup>14</sup>. Nevertheless, it was noted that future financial services may pose new requirements. Denmark's central bank is continuously monitoring the global development on the topic and is involved in various groups and international forums which examine the technology, the opportunities and risks embedded in launching a CBDC.

**1.7 Australia** presents a similar approach to Denmark. The central bank wasn't persuaded about the need to issue a CBDC as Australia has a well-functioning and advanced payment system. According to their assessment a major part, if not all of the innovation that CBDC would bring, can be achieved by innovation

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<sup>12</sup> Sveriges Riksbank website

<https://www.riksbank.se/en-gb/payments--cash/e-krona>

<sup>13</sup> Bank of England (2023).

<sup>14</sup> Seixas, et al. 2022.



commercial bank money, e-money or stablecoins. The bank is holding a project to explore future use cases for CBDC in Australia. The experiment focuses on future use cases in which CBDC would contribute to the Australian economy, technological aspects and regulatory and legal aspects<sup>15</sup>. The central bank is aware of the global development and that the need for the CBDC may arise, for instance, to protect the status of fiat money and to decrease the risk of dominance of big techs, and therefore will keep monitoring the topic.

This brief review demonstrates that central banks differ in their approaches to the topic. Some central banks follow an approach in which CBDC issuance should be considered only against an undesired scenario ("defensive" approach), while other central banks follow a proactive approach to advance the CBDC issuance while examining the inherent benefits alongside maintaining financial stability ("offensive" approach). Furthermore, most central banks have not decided on specific well defined terms that would lead to a decision whether or not to issue a CBDC. However, the scenario of a decline in the usage of cash that would result in the public losing its ability to use central bank money is a dominant consideration in various countries.

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<sup>15</sup> Reserve Bank of Australia (2022). Reserve Bank and Digital Finance Cooperative Research Centre to Explore Use Cases for CBDC.  
<https://www.rba.gov.au/media-releases/2022/mr-22-23.html>



## 2. Factors and areas with the potential to influence a Bank of Israel decision on issuing a digital shekel

### 2.1 CBDC issuances by other countries

It is important to note that countries that have already issued or are close to issuing CBDC are emerging or developing economies, where the state of the payments system and of the financial system are very different from those in Israel. In addition, the Israeli economy, and particularly the financial system, has relatively little exposure to these countries. Therefore, there is a small likelihood that a decision made solely by one or more of these developing economies would “tip the balance” in favor of a positive decision in Israel. If we look at the possible effects of such a decision by developed economies, we can distinguish two main scenarios that may have an impact on such a decision in Israel.

- **A positive decision by leading economies in the world** in various fields, particularly in payments systems, or at least have a substantial impact on determining standards. This category includes the US, and Eurozone countries who will decide together through the European Central Bank and EU institutions. A positive decision on the part of these economies may be relevant to Israel, since most of Israel’s trade and capital movements are denominated in US dollars or euros, and if digital currency is issued in these countries, it may be possible to make international payments using such currency, with greater convenience and ease and this could have an impact on how international payments are made from Israel.. In addition, an issuance of digital currency by the US or the Eurozone would create standards that it may be necessary to adopt for the main characteristics of a digital shekel should one be issued.
- **A positive decision by other developed economies.** If other countries with similar characteristics to the Israeli economy make positive decisions to issue CBDC, it may support such an issuance in Israel as well, in view of Israel’s ability to learn from their experience. In addition, the question regarding Israel’s place at the technological forefront of the world of payments will come into sharper focus.



A positive decision by one or more countries (leading or others) may “tip the scales” for other countries that already have a basis and an advanced work plan to advance a positive decision to issue within a relatively short time. This may also put Israel in a position where it would need to issue within a reasonable timeframe in order to “fall in line” with the global situation (as a “defensive” approach), or alternatively make it necessary to provide in-depth reasons why the motivations that are suitable for an increasing number of countries are not suitable for Israel. It should be noted that there may also be a scenario in which a number of countries decide to issue CBDC (for instance the Eurozone and Sweden) while other countries do not decide to move forward (such as the US and Britain).

It should be noted that a positive decision to issue among a number of advanced economies and/or those with similar characteristics may also contribute significantly to the level of knowledge and preparedness in the Israeli project, since it will be possible to utilize their tangible experience in various fields: characteristics and features of the currency, technology, policy questions, and so forth. This may support a more “offensive” approach to realize the potential benefits of issuing CBDC while lowering the uncertainty and risks involved in the issue.

**By our assessment**, a development where one of the developed economies decides to issue CBDC and others follow it and issue as well, has a relatively high possibility within a few years. This process may have a significant impact on the dynamic that will develop around the world, which will require the Bank of Israel to be able to make a decision on issuing CBDC (or not) and advancing to action within a relatively short time. In order to be able to make a decision not to issue (for now), we must have sufficient knowledge regarding the costs and benefits.

The Bank of Israel will continue its constant monitoring of developments in the US, Europe, and other major advanced economies. Since the decision process is expected to be gradual and long—both abroad and in Israel—it is important to discuss possible responses to significant developments (for instance, accelerating the examination stage, or moving to the “production stage”) even before making a decision to actually issue CBDC.



## 2.2. Decline in the use and acceptance of cash in Israel

In many countries, the payments field is undergoing a broad digital transformation. The use of advanced means of payment may improve consumer well-being through streamlining, increased convenience, and sometimes lower payment costs, as well as an increased variety of products and services available to the customer (online purchases, purchases from international companies, etc.). In addition, it should help consumers put together a cheaper consumption basket through purchasing goods and services that would not be accessible with cash payments. However, reducing the use of cash may have significant wide-ranging effects:

- As a central bank liability (as opposed to deposits, which are a liability of the commercial bank), cash is an anchor for the stability of the monetary system. The public's knowledge that it can convert money in a bank account to cash and use it for a variety of needs supports the stability of the banking system, and ensures a "one-to-one ratio" between a cash shekel and a shekel in a bank account.<sup>16</sup>
- When the use of cash declines, operating the cash system becomes less economically profitable both from the merchants' point of view and from the standpoint of distribution of cash by the banking system. Once the use of cash declines below a certain level, it is no longer worthwhile to operate or maintain the system for the segment that still uses and wants to use cash. As a result, such an occurrence would cause difficulties for those wishing to use cash, the infrastructure for supplying and using cash would deteriorate, and the ability to use cash as a means of payment would be impaired.
- Merchants' reduced willingness to receive payment in cash may harm population groups that do not have access to advanced means of payment, who might find themselves excluded from the ability to purchase even the most basic goods and services. These population groups might include people suffering from financial exclusion due to the build-up of debts, the elderly, and children, as well as population groups that avoid financial products for religious reasons.<sup>17</sup>
- A decline in the use of cash leads to some impairment in people's privacy since when making any legitimate digital payments through a financial firm, private information is

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<sup>16</sup> Sveriges Riksbank (2020).

<sup>17</sup> For more information, please see Bank of Israel (2022a).



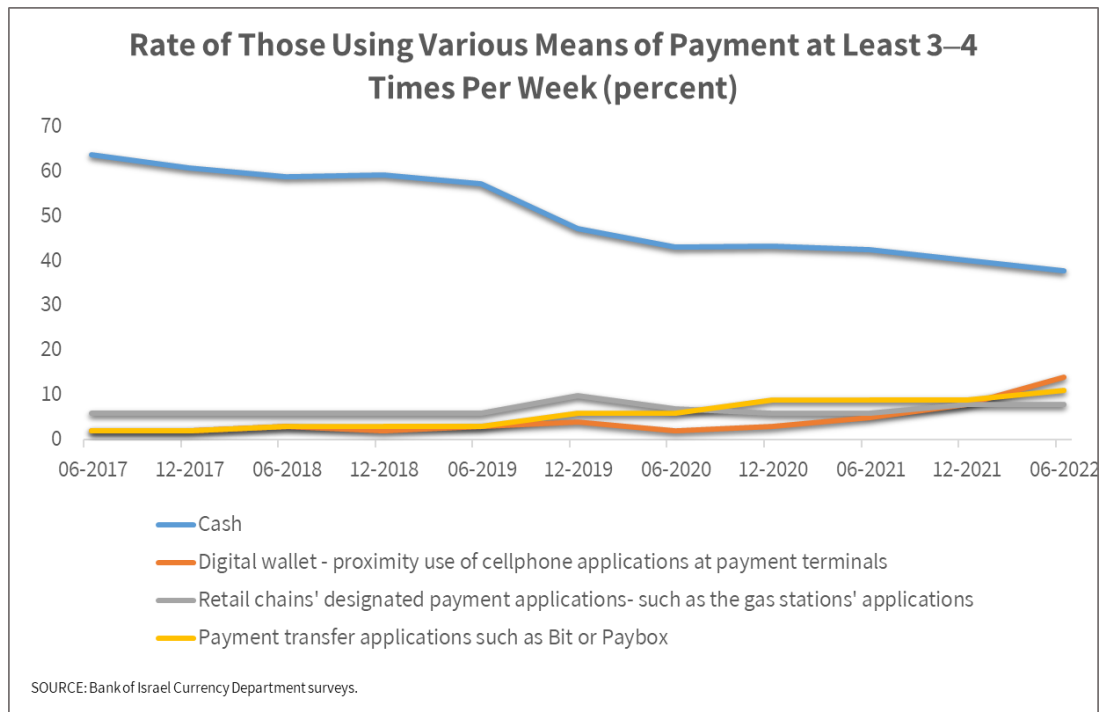
held by the issuer, acquirer, and merchant. While it is not likely that CBDC will enable anonymous payments similar to cash, it will be able to enable a higher level of privacy<sup>18</sup> than the existing digital payments, in various ways.

- A decline in the use of cash and transition to payment only through financial firms creates technological and infrastructural dependence on these firms, which may impair the resilience and redundancy of the payments system. Beyond that, as the dependence on international financial or technological firms grows, it may also harm the sovereignty of countries' monetary systems.

## Trends in the use of cash in Israel

There are a number of ways to examine the rate of the use of cash. A survey conducted by the Bank of Israel Currency Department in 2022 shows that while the use of advanced means of payment is increasing gradually over time, there has been a sharp decline in the use of cash since mid-2019 (Figure 1).

**FIGURE 1**

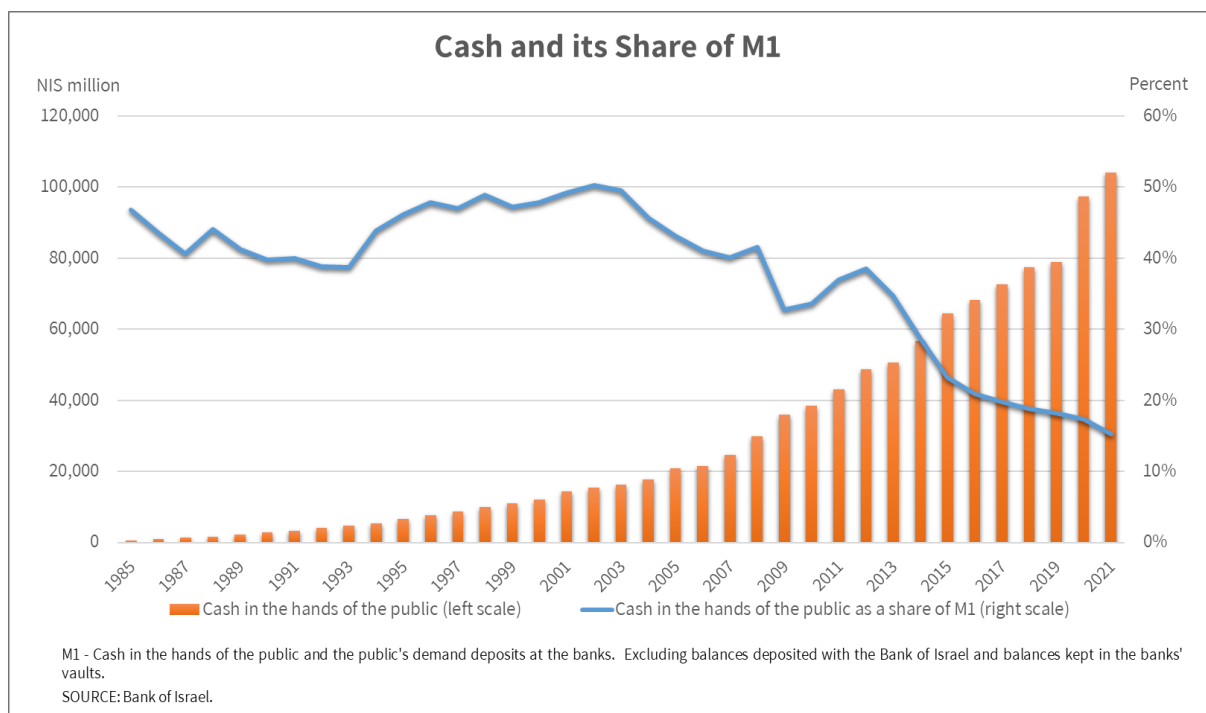


<sup>18</sup> This obviously depends on how the chosen technology is designed. A Bank of Israel technological trial examined technology that may enable limited privacy. See Bank of Israel (2022b).



Cash in the hands of the public as a share of M1 money supply declined gradually from 2000 until mid-2020 (Figure 2). In contrast, total payment card transactions increased from approximately NIS 215 billion per year in 2000 to approximately NIS 347 billion in 2020. In addition to this increase, the rate of transactions with a value of up to NIS 50 increased from approximately 23 percent of all payment card transactions in 2002 to approximately 37 percent in 2020 (Figure 3).<sup>19</sup> Taken together, these figures show an increase in the popularity of using payment cards for day-to-day transactions and the technological inferiority of cash. This inferiority is reflected in the fact that cash is limited to physical transactions, and in the inability to obtain credit. In contrast, payment with cash is immediate against receiving the product or service (DVP). In addition, there are a number of basic consumer goods that cannot currently be paid for using cash (for instance, public transit in Israel).

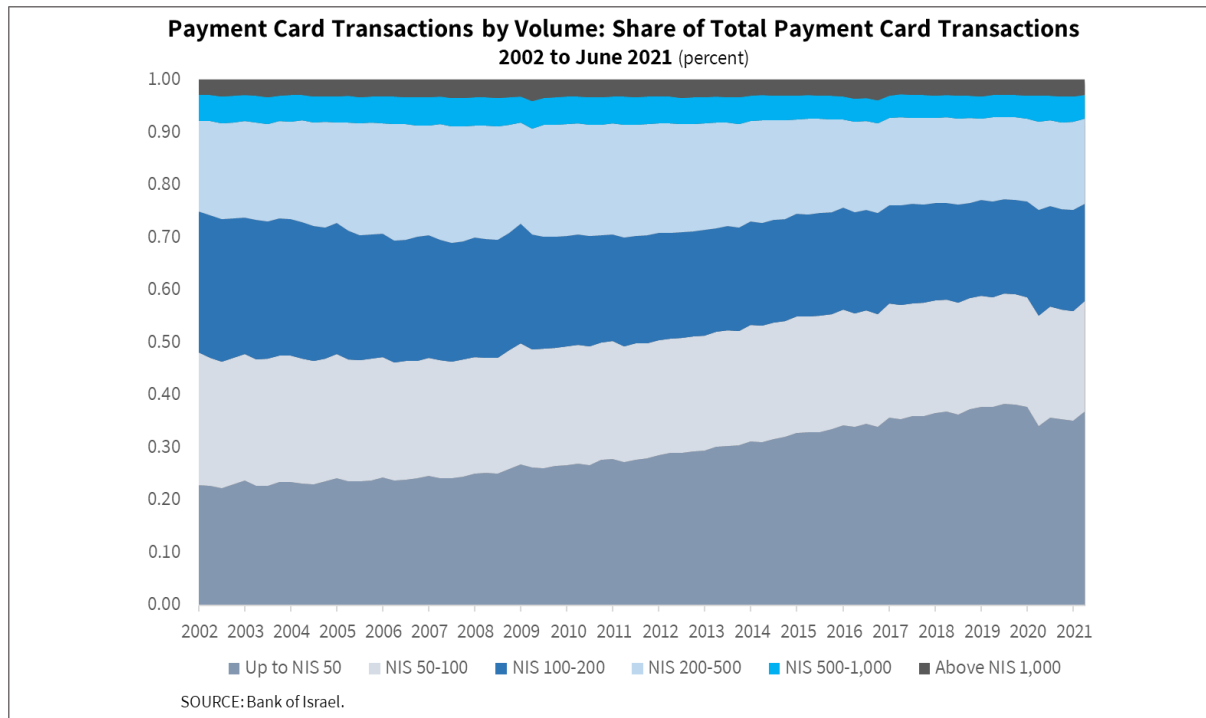
**FIGURE 2**



<sup>19</sup> For more information, please see Bank of Israel (2021a).



**FIGURE 3**



**By our assessment,** despite the fact that cash is still used in Israel for a significant portion of consumer expenses, there is considerable likelihood that the use of cash as a (legitimate) means of payment will decline more rapidly with the expanding adoption of payment applications and of electronic means of payment in general. Therefore, we must prepare for a situation in which it appears, more quickly than we expect, that cash is no longer used as a common means of payment, and that the option of making transactions with central bank money shrinks. Therefore, the Bank of Israel continues to monitor developments in the use of cash as a means of payment.



### **2.3. Penetration of stablecoins or other private means of payment as a broadly used means of payment**

Another factor that should lead to a decision to issue a digital shekel is the penetration of a stablecoin as a broadly used means of payment in Israel. There are two potential main scenarios to look at. A stablecoin that is pegged to the shekel, and a stablecoin that is pegged to foreign currency.

A stablecoin pegged to the shekel that is issued by a supervised financial entity, which becomes a broadly used means of payment, would join the shekel as an additional advanced means of payment that should reduce the usage of cash and raise difficulties similar to those that might occur if the use of cash declines. In order to enable the issuance of a stablecoin without significant risk to financial stability, a regulatory framework is required that has not yet been formulated. The broad use of a private stablecoin might lead to the fragmentation of the payments system and to a major difficulty in making transactions between customers and various issuers. The penetration of a stablecoin pegged to foreign currency raises additional challenges that must be discussed. Economic history shows that when economies are not stable and suffer from hyperinflation, the public tends to use assets that are pegged to foreign currency. It is clear that the Israeli economy is currently stable, and that the domestic consumer has no incentive to use currency that is pegged to foreign exchange as a means of payment in the domestic economy, since that would expose the consumer to the exchange rate and to conversion costs. However, the advantages of using currency pegged to foreign exchange in order to make international transactions might lead to the adoption of such a currency in the domestic economy as well, despite these risks and costs. The broad adoption of a currency pegged to foreign exchange might be reflected in the actual indexation of the price of various goods and services in the domestic market to foreign currency, an increase in the public's exposure to foreign currency, and a decline in the transmission of the central bank's monetary policy.



## 2.4. Technological developments in the payments system

Another possible development that would justify an examination of issuing digital currency is more general, and difficult to measure, but may be significant. The payments system is undergoing significant changes in view of technological developments that enable streamlining, improvement and offering additional new services. In the future, it may turn out that there is significant justification for issuing CBDC, since it would be able to serve as an efficient and secure platform for advanced technological applications.<sup>20,21</sup> It is difficult to assess the expected developments in this context, and it seems that they may be able to provide an incentive for issuing a digital shekel, but would not create a situation in which rapid issuance is necessary.

By our assessment, at this stage, the use of “stablecoins” as a means of payment is very negligible and does not pose a significant risk to the payments system. In particular, the risk of “digital dollarization”—the use of a stablecoin denominated in foreign currency—is very small, in view of the stability of the Israeli economy. The possibility of a domestic stablecoin taking over as a common means of payment exists, but it is difficult to assess the changes of this happening or the time in which it may take place. However, there is concern that in a scenario where such a currency is issued by a leading “player” from the private sector (for instance an international big tech firm), the public’s adoption may be rapid. The Bank of Israel continues to monitor developments in this area, since a massive penetration of such currencies may have prudential implications for the banking system and for the financial system as a whole, for the monetary transmission and for the competition.

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<sup>20</sup> See the chapter on the future of the monetary system in the BIS Annual Report for 2022.

<sup>21</sup> For more information, see Bank of Israel (2021b), pp 22–23.



## 2.5. The extent of competition in the domestic payments system

The dominance of a small number of participants in certain segments of the payments system may justify the issuance of a currency by the central bank in order to support competition in the payments system in the digital era. In addition, a digital shekel may provide an alternative to noninterest-bearing deposits, and thereby increase competition in this field as well. The fact that the digital shekel would be issued by the central bank, and specifications that would enable access to it through a wide variety of private sector participants (in a two-tier system), may increase competition in any field in which the digital shekel would be usable.

The extent of competition in the payments system is an aspect that should be closely monitored in order to prevent a situation in which there would be a significant reduction in competition, which would cause a difficulty to deal with, as a concentrated entity's hold is increasing and the payments system becomes dependent on it. In certain segments of the payments system and of the financial system, the state of competition is such that it already supports a decision to issue a digital shekel. The Bank of Israel continues to examine and monitor developments in the extent of competition in the domestic payments system and in the financial system.



## Conclusion

This document presents main issues to be examined prior to any decision on issuing CBDC by the Bank of Israel and its timing. The five issues examined herein are: CBDC issuances abroad; trends in the use of cash as a means of payment; the adoption and use of stablecoins as a broad means of payments; technological developments in the payments system and developments in the market; and the extent of competition in the Israeli payments system. This document proposes a framework through which the Bank of Israel can examine these questions in order to advance to a decision on whether to issue a digital shekel in the coming years and on the date of its issuance. The document does not propose specific thresholds for any of the subjects discussed that would require or justify a decision to issue CBDC, because it is difficult to assess the quantitative impact of each of the parameters, and because future circumstances may change and make any thresholds decided upon now irrelevant. However, as long as there is no decision that the Bank of Israel will in any case not issue a digital currency at any time, there is a possibility that conditions may call for the issuance of such a currency. A proper examination of these aspects over time is also necessary in order to assess the extent to which there is a chance that such an issuance may become urgent. Such an assessment has a significant impact on continued work on the matter.

The Bank of Israel will properly monitor developments in each of the issues presented herein. The Steering Committee will hold periodic discussions on whether there has been any significant change in any of them that would justify a Bank of Israel decision on issuing a digital shekel at any given time.



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