

# Implementation of National Digital Currencies on the Practical Experience of the Republic of Turkey



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## INTRODUCTION

In 2022, the global economic space is seeing dramatic changes in current economic activity and financial instruments, which are used by both small companies and leading corporate giants. Technological progress in the field of digitalization and the emergence of private digital currencies have accelerated the digital transformation of traditional forms of monetary settlement. There is a need for the prompt implementation of an effective financial project that would help achieve the goals of digitalization of financial services and economic activity, expanding access to financial services, and developing innovative technologies.

Along with the growing demand for fast, cheap and transparent online transfers without geographical and time restrictions and the introduction of instant payment systems, the search for forms of application of artificial intelligence, the development of cloud technologies, electronic payment systems, private digital currencies, biometrics, robotization, peer-to-peer P2P networks, the actual is the creation of its own digital currency, independent of the dollar, the only issuer of which are local central banks.

In this research material, the author's goal is to carefully analyze the key characteristics of a modern reserve means of payment - digital (electronic) currencies of the central banks of the Central Bank Digital Currency (CBDC), assess the effectiveness of their emission in the activities of modern financial institutions and study the directions of their influence on the global monetary and payment systems in general and the Republic of Turkey in particular.

## BACKGROUND

The study set the task of substantiating the reasons that necessitated the transition to a new format of monetary payments, considering the practical experience of the Republic of Turkey in the implementation of the digital Turkish lira, focusing on the specific features of the introduction of digital currency in the country in question and presenting a predictive scenario for the development of digital currencies in the world.

Based on the open reporting data of the Bank for International Settlements (BIS) for 2021, the Islamic Financial Services Board (IFSB) for 2021 and 2022, the large Spanish bank Banco Bilbao Vizcaya Argentaria (BBVA), the international consulting company Deloitte, studies of large foreign and Russian experts in economics, finance, digital technologies, the author will analyze the advantages and disadvantages of the introduction of digital currencies, as well as assess the potential prospects for the further introduction of digital currencies of central banks.

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According to the 2022 BIS Survey on Central Bank Digital Currencies conducted by Monetary and Economics specialists A. Kosse and I. Mattei, out of 81 central banking institutions surveyed in autumn 2021 working on the planning, piloting, testing process, launch of pilot projects of digital currencies, 9 out of 10 central banks are at the stage of researching digital currencies and plan to issue their own digital currencies in the near future, and more than half have already begun implementing programs to introduce new forms of electronic money settlements. In general, according to BIS experts, 90% of surveyed banking institutions are involved in the launch of central currencies “in one form or another.” According to experts, the key factors motivating the rapid implementation of CBDC are the acquisition of financial stability and the solution of one of the “pain points” of the modern economy - an increase in the current chains of cross-border payments.

BBVA experts call one of the factors stimulating the emergence of digital currencies the functioning of the global economic markets of cryptocurrencies. One of the risks of the development of CBDC experts recognize “a significant increase in the size of digital currencies, which will expand the role of central banking organizations” far beyond their current functions.

Deloitte representatives consider digital currencies a “key link” in transferring the values of innovative digital development in the field of payments and note that as of 2022, most central banks are at various stages of evaluating the possibility of launching their own national digital currencies. Deloitte experts also cite the development of cryptocurrencies as a new asset class and overcoming the consequences of the COVID-19 pandemic as factors in the growth of interest in digital currencies. Deloitte recognizes the largest APAC (Asia-Pacific) cities as leaders in the implementation of CBDC, including Shanghai, Hong Kong, Singapore, Seoul, etc.

O. Freiman gives a pessimistic forecast for the development of the digital currency market, according to which “central bank digital currencies may mean the end of democracy” due to the fact that “the authorities will be able to fully control the finances of their citizens”. Despite the fact that the expert recognizes the ability of digital currencies of central banks to influence the renewal of the national financial infrastructure, the possibility of restricting citizens in the purchase of any goods, services and solutions, the expert considers the development of a new format of monetary settlements to be dangerous.

The negative opinion of a colleague is supported by K.O. Peterson, who believes that a central bank digital currency “could lead to the collapse of most private digital currencies that are not issued by a central bank or monetary authority” (Peterson, et al., 2022). As an example of a private digital currency, which will be under threat with the introduction of CBDC, the expert cites bitcoin. According to K.O. Peterson, the credibility of cryptocurrencies with the introduction of CBDC will be undermined.

The Russian expert O.M. disagrees with the opinion of his colleague. Akimov (Akimov, et al., 2020), who considers central bank digital money to be more flexible and reliable for consumers than private cryptocurrencies. V.U. Petrov notes that the latter have serious “security gaps” (Petrov, et al., 2018).

Cautious views on CBDC are still an unpopular trend in the expert and scientific communities. Most experts are of the opinion about the positive impact of new technologies on the financial and monetary policy of the state and the social well-being of citizens. For example, the first step towards the introduction of a “new global monetary system” (Wang, 2021, pp. 18) is the introduction of a digital currency, Deputy Director of the Institute of Economics and Business Administration at the Normal University of Central China H. Wang (Wang, 2021). The expert also notes the deterrent effect of central bank e-currencies on “American financial hegemony” (Wang, 2021, pp. 18).

The point of view of a colleague is supported by analysts R. Auer, J. Frost, L. Gambacorta, C. Monnet, T. Rice, H.S. Shin (Auer, et al., 2022), emphasizing both the growth of scientific interest and

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