1. RULES AND CONSEQUENCES OF THE DIGITAL RUBLE ADOPTION

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The digital ruble law, which is coming into force, essentially means the emergence of a new form of money in Russia. This is the Central Bank’s digital ruble, intended for mass use by households and businesses. In this regard, it is important to assess the features, advantages and, at the same time, limitations of using the digital ruble, as well as the implications for the banking sector.

The digital ruble is a central bank digital currency (CBDC), being a liability of the monetary authorities in non-cash form, more precisely in the form of a digital code, and is part of the monetary base along with cash and reserves of commercial banks. The digital ruble belongs to the so-called retail CBDC, i.e. digital currencies designed for mass use by households and businesses, as opposed to wholesale CBDC, which are designed for large payments by banks and other financial intermediaries. Thus, the digital ruble can be considered digital cash, as CBDC combines the convenience of electronic money and the reliability of banknotes in terms of the absence of default risk of their issuer.

Results of the latest Bank for International Settlements (BIS) survey on central banks which were published in July 2023 show that five full-fledged retail CBDC projects have now been launched: the Sand dollar in the Bahamas, the Dcash in the Eastern Caribbean Economic and Monetary Union, e-Naira in Nigeria, and JAM-DEX in Jamaica. Significant pilot projects in global practice also include e-CNY in China, Digital Rupee in India and E-cedi in Ghana. Separately, Uruguay’s e-Peso is a successful project, according to both monetary authorities and the IMF, but was terminated after the pilot launch: the Uruguayan authorities considered that there was no demand from the population for the new form of settlement in the country as of 2018.

3 URL: https://eccb-centralbank.org/d-cash
5 URL: https://boj.org.jm/core-functions/currency/cbdc/
7 Reserve Bank of India. (October 2022). «Concept Note on Central Bank Digital Currency». Reports.
However, after the COVID-19 pandemic, the global need to maximize the reliability of electronic payments has grown. The 2022 economic shock and the sanctions pressure on Russian banks and citizens to make payments and settlements have once again demonstrated the importance of diversification in payments and the need for greater sovereignty in this area.

The digital ruble is another form of the Russian ruble (along with the cash and non-cash ruble). Its issuance and implementation require amendments to a number of legislative acts of the country. These are, first of all, the Law “On Banks and Banking Activity”, the Law “On the Central Bank”, and the Law “On the National Payment System”. The amendments also concern legislation in the sphere of bankruptcy, currency regulation and currency control, enforcement proceedings and customs regulation.

On July 12, the Bank of Russia released a draft regulation “On the Digital Ruble Platform”. On July 24, the State Duma adopted the Law on the Digital Ruble, which comes into force on August 1. The legislative changes will allow the digital ruble to move to the stage of a full-fledged pilot project, namely, to conduct transactions with real digital rubles with the involvement of clients of banks from the pilot group. Such testing of the digital ruble is a major step towards its widespread use by households and businesses.

According to the Federal Law, the issuance of the digital ruble and its circulation are carried out within the framework of the so-called digital ruble platform – an information system through which three groups of economic agents interact in order to perform transactions with digital rubles and in accordance with a set of certain rules:

1) The operator of the digital ruble platform (Bank of Russia);
2) Participants of the digital ruble platform (money transfer operators, usually commercial banks and non-bank credit organizations or foreign banks);
3) Users of the digital ruble platform (individuals or legal entities, as well as individual entrepreneurs).

The functioning of the digital ruble will be organized within the framework of a two-tier model. Global experience shows that such a model is typical for mainland countries with a developed banking network, which can be effectively used for the implementation of CBDC. The issuer of the digital ruble and the operator of the digital ruble platform is the Bank of Russia, but interaction with end users of the digital ruble in terms of opening digital wallets and receiving payment orders will be entrusted to commercial banks, which will transmit information to the platform operator. The principle of double verification of

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1 Draft Regulation of the Bank of Russia “On the Digital Ruble Platform” (as of 12.07.2023) (drafted by the Bank of Russia), project ID 04/15/07-23/00139958).
3 The pilot group of banks includes 15 banks: Sberbank, VTB, Alfa Bank, Tinkoff Bank, Gazprombank, Rosbank, Promsvyazbank, Sovcombank, Ak Bars, Dom.RF, Sina, Soyuz, TCB, MTS Bank and Qiwi Bank.
4 The draft regulation “On the Digital Ruble Platform” defines platform participants as credit institutions.
5 At the same time, the draft regulation “On the Digital Ruble Platform” states that “the digital ruble platform ... shall open ... digital ruble accounts of money transfer operators, except foreign banks (hereinafter – the digital ruble account of the platform participant)”. In other words, according to the draft regulation, foreign banks may not be participants in the digital ruble platform, at least not direct participants.
6 The law explicitly states that the digital ruble is “an obligation of the operator of the digital ruble platform (the Bank of Russia)”. 

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Information about the payer, payment and digital wallet will apply to payments: first by the commercial bank before sending the payment order to the Bank of Russia and then by the Bank of Russia as the platform operator before executing the corresponding order of the platform user.

The platform users will be able to conduct transactions with digital rubles of three types:

1) Transactions to increase the balance of digital rubles in the digital ruble account by transferring funds from a bank account or decreasing the balance of electronic funds;

2) Operations to decrease the balance of digital rubles on the digital ruble account by transferring funds to a bank account or increasing the balance of electronic monetary funds and transfers of digital rubles;

3) Transfer of digital rubles, which is performed exclusively within the platform by simultaneous equivalent decrease and increase of the balance of digital rubles in the accounts of two users; this moment corresponds to the termination of the transaction.

Let’s analyze the benefits and disadvantages of the digital ruble for end users and system participants.

The digital ruble for individuals has a number of advantages. Firstly, maintenance of the digital ruble account for individuals is free of charge, and no fees will be charged on digital ruble transactions. This will be a clear advantage of the digital ruble over other electronic payment methods (Faster Payment System or card transfers, which may incur fees depending on the terms of service at each individual bank). Secondly, the digital ruble platform implies the possibility of offline transfers in digital ruble, which is not possible for online bank chip cards, but the technical details of such transactions have not yet been determined. These advantages will be especially significant for the end user – an individual living in remote areas with unstable internet coverage and an underdeveloped banking services sector. Thirdly, the digital ruble is more reliable than “money in the bank” because the digital ruble is not a liability of a commercial bank, which may go bankrupt, but of the central bank. Fourthly, the digital ruble platform is expected to function in real time 24/7, i.e. around the clock every day, including weekends, non-working days and holidays. In terms of these parameters, the digital ruble will not be inferior to card transfers.

In the meantime, the digital ruble will be inferior to other settlement methods available to the population in terms of a number of characteristics. Firstly, the law explicitly states that a joint digital ruble account as well as a digital ruble account in precious metals and the formation of a group of digital ruble accounts are not allowed. According to these parameters, the digital ruble will be less attractive than the existing joint accounts on the market (bank card accounts or interest-bearing savings accounts), which give several people an opportunity to use one account. In addition, the principle of “one user – one wallet” will apply. Secondly, settlements in the digital ruble, unlike cash settlements, will not be anonymous. To gain access to the digital ruble platform, a user must be registered in the USIA system (in essence, on the Gosuslugi portal) and receive a simple electronic signature key. Further, it will be necessary to undergo an identification procedure in the bank – a participant of the platform. For some users, the need to bear such additional transaction costs may be an argument against the use of the digital ruble – especially in areas with developed payment infrastructure. Another type of costs associated with use of the digital ruble may include the need to install special software for
banks connected to the digital ruble platform. Such software can be installed, for example, on a smartphone or tablet. Along with that, a convenient option is that the client will be able to see his balance and make transactions through any bank connected to the platform.\(^1\)

The use of the digital ruble will be of great benefit to businesses as the cost of outgoing transactions for it will amount to 0.3% of the payment amount (for comparison, the fee in FPS is 0.5%). In addition, accepting payments from customers for goods and services using bank cards is accompanied by the need to pay acquiring commissions, which on average are equal to 1.2–2.2% depending on the type of card or type of business activity.\(^2\) It is most likely that similar commissions paid by businesses to commercial banks when accepting payments from customers in digital rubles will be lower or even zero.

The digital ruble is in its form a digital code, so another advantage for businesses will be the ability to form smart contracts\(^3\) based on digital rubles. The ability to "tag" digital rubles in order to track the digital footprint of payment transactions, as well as (non)targeted spending, will also be important for the government.

A digital ruble is the same property of an individual or legal entity, individual entrepreneur, which means that digital ruble accounts can be foreclosed by various authorities.

What are the implications of the introduction of the digital ruble for banks participating in the digital ruble platform? Commercial banks will receive certain remuneration for their services, the maximum amount of which will be set by the Bank of Russia. However, it is likely that the potential losses from the launch of the digital ruble for banks will exceed the amount of such remuneration-commissions. The fact is that due to certain advantages of the digital ruble for households and businesses described above, there will be a partial outflow of demand deposits from the banking sector. For example, earlier Sberbank predicted an outflow of up to Rb4 trillion from banks into the digital ruble.\(^4\) To mitigate these risks, the Bank of Russia has the right to set limits on transactions with the digital ruble and the size of balances on digital ruble accounts. This is necessary for step-by-step testing of the consequences of the launch of the new form of the ruble. Bank of Russia officials confirm\(^5\) that "the digital ruble will result in a redistribution of some interest income in favor of holders of current/settlement accounts and deposits. In an attempt to avoid excessive overflow of highly liquid liabilities into the digital ruble and to preserve the opportunity to earn on such liabilities, banks will have to raise interest rates on balances on such accounts (payroll, settlement, current accounts)". Such a policy may lead to an increase in interest rates on loans, and, therefore, to negative incentives for investment, consumer and mortgage lending and economic growth. Thus, setting limits on digital ruble account balances and digital ruble transactions

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1 When closing a user’s digital currency account, the balance of funds will be transferred to the user’s correspondent account. In case of closure of a digital ruble account of a platform participant (bank), user accounts will not be closed, but will be transferred to another credit organization servicing such user. In general, access to the digital ruble platform can be provided to the platform user simultaneously through the software of several banks – platform participants.

2 URL: https://cbr.ru/press/event/?id=12769

3 Smart contract implies automatic transfer of funds when the counterparty fulfills the terms of the transaction.

4 URL: https://www.rbc.ru/finances/15/12/2020/5fd86d47979470af8e7e4f9

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is aimed at reducing the initial potential negative effects of the launch of the digital ruble on the economy.

Moreover, the law states that “a digital ruble account is a separate type of bank account”. The digital ruble can be used to pay for goods and services, as well as transfers between economic agents, but “attraction of digital rubles into deposits” is prohibited, i.e. digital rubles cannot be deposited (exactly in the form of a digital ruble): firstly, the digital ruble will have to be converted into a non-cash form and then deposited in non-cash rubles. Crediting of digital ruble accounts is also not allowed, which means that it is impossible to take a loan in them. This norm is designed to protect the interests of the banking sector, otherwise there will be a problem of interest payments on digital rubles, and the Bank of Russia will “compete” with commercial banks for liquidity or lending to households and businesses. This is one of the reasons why the law prohibits the accrual of interest on digital rubles.

Therefore the only opportunity for commercial banks to try to reduce losses from the introduction of the digital ruble is to be an active part of the payment system based on the digital ruble and to develop new more attractive products for their clients. In general, this should increase the level of competition in the banking services market, which may be beneficial for households in the area of payments, but not in the area of lending, where we expect a certain increase in interest rates due to the decrease in bank liquidity discussed above.

The new legislation on the digital ruble opens up the prospect of using the digital currency in international settlements.\(^1\) Access to the digital ruble platform is granted to non-resident users through member banks or the digital ruble platform operator; and the Bank of Russia is authorized to interact with the operator of the digital currency platform of a foreign country (group of foreign countries). In addition, foreign CBDC are subject to currency regulation.

The changes in Russian legislation required for the introduction of the digital ruble are quite extensive and will require some restructuring of the banking sector and the payment sector as a new form of money is essentially emerging in Russia. However, in any case, the use of digital rubles for end users will be purely voluntary and they will still have an alternative in the form of cash and non-cash rubles.

\(^{1}\) In the context of sanctions, the discussion about the use of cryptocurrencies to ensure settlements at the international level has intensified. However, in our opinion, cryptocurrencies are not a reliable solution to the difficulties at the level of cross-border settlements for a number of reasons:

1) The field of cryptocurrencies is not regulated, and the legislation of different countries regarding cryptocurrencies and other digital financial assets is different; there are no reliable mechanisms to guarantee that counterparties will fulfill the terms of the transaction when paying with cryptocurrencies;

2) There is external pressure on cryptocurrency exchanges regarding the ban on opening cryptocurrency wallets by Russian residents, restrictions on replenishing wallets using Russian cards and bank transfers, etc.;

3) Cryptocurrency rates remain highly volatile. We are talking not only about tokens like Bitcoin, Ethereum and Ripple, but also about stablecoins like Tether, the prices of which are pegged to the value of certain assets or baskets of assets. All this entails significant risks of making payments in cryptocurrencies.