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## Digital Currencies: Conceptualization of Risks and Regulatory Opportunities

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### ABSTRACT

The subject of the study is the risks of the development of digital currencies. The study suggests that when solving the existing technological problems of creating a digital currency, Suppose we are talking about digital currencies not controlled by the state and the central bank. The study suggests that after solving the existing technological problems concerning the creation of digital currency, a reorientation of the national entities can occur to make payments in digital currencies to anonymize payments, avoid taxes, and reduce the costs associated with the transfer. As a result, the capabilities of national state bodies in regulating the economic activities of economic entities may decrease. The share of their shadow interaction may also increase. Problems in the performance of the fiscal function of the state may become more acute. The purpose of this research is to conceptualize the risks of the emergence and regulation of the use of supranational digital currencies as a means of payment. The moving of national cash flows to the supranational level – to the sphere of digital currency exchange will negatively affect the completeness of filling the state budget and its ability to perform basic functions. This process will create a real threat to economic security. The study reveals aspects of the development of the digital ruble and the possibility of reducing the risks of using digital currencies by creating new mechanisms for state regulation of economic entities. The research examines the prospects for reducing the attractiveness of supranational digital currencies.

**Keywords:** financial technologies; digital currency; digital ruble; digitalization; economic security; payment systems; money; cash flow; eco-platforms; central bank

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## INTRODUCTION

The research examines potential risks, resulting from the development of supranational digital currencies (then — SDC)<sup>1</sup> as a payment tool. The study suggests that the rise of volume of SDC in settlements could lead to a shift of domestic cash flows to the supranational level. For the moment, there are limitations linked to the high cost of generating new SDC units and its inefficiency. Following the introduction of a new way to produce SDC that allows low-cost generation, we can expect a global “reboot” of the SDC system. Therefore, SDC might gradually become widespread. SDC will demonstrate a maximum trust of economic entities of different countries, reducing the usage of national currencies as a payment tool. The increased attractiveness of SDC may be linked to anonymity of transactions, absence of commission, cross-border restrictions on settlements, a number of other characteristics that make SDC more competitive than national currencies. The upward trend in the use of SDC will also be caused by the further development of the payment infrastructure so that it can be used in settlements. Currently, there are 26K ATMs worldwide that accept Bitcoin,<sup>2</sup> 86% of which are in the US.

The development of the described above situation creates new risks for Russia's economic security. Settlements using SDC outside the national regulatory framework implies a lack of capacity to monitor their movements, obtaining information for the taxation of economic entities and their transactions, the collection of commissions etc. With the transfer of cash flows to the

supranational level, the ability of traditional monitoring of economic interactions between entities on the basis of data on the cash flow is impaired. Since the creation of the new SDC production technology, threats to the state economic security may increase significantly. The chance of a high-tech SDC emergence will increase with the rapid development of information technology and increased competition among financial conglomerates [1].

The SDC problem first emerged with the advent of bitcoins during the global financial crisis of 2008 year. [2] However, the SDC had a very limited distribution. The development of SDC technologies will involve an increasing number of economic actors in the process of using them.[3] As a result, SDC as a form of settlements can strengthen its position by increasing popularity among citizens of different countries. The more people use SDC, the less dependent they are on national currencies.

The situation is exacerbated by the fact that most regulators (central banks) do not have any technical and legal capacity to regulate SDC.<sup>3</sup> In particular, in Russia has adopted the Federal Act from 31 July 2020 No. 259 “On digital financial assets, digital currency and on amending selected legislative acts of the Russian Federation”, to introduce the concept of “digital currency” in the regulation field. At the same time, art. 14 p. 4, of the Act stipulates that the organization of the issuance of digital currency in Russia is regulated in accordance with federal laws. As of September 2021, there are no such federal laws, probably due to lack of clarity: how to establish control by a national regulatory body over processes that are predominantly outside

<sup>1</sup> Supranational digital currencies are monetary surrogates created internationally and not recognized by most central banks, including the Bank of Russia, as a means of payment.

<sup>2</sup> Prevalence of bitcoin-receiving ATMs, by region of the world. URL: <https://zen.yandex.ru/media/pstat/rasprostranennost-bankomatov-prinimaiuscih-bitkoiny-po-regionam-mira-61387f5f4e045b4b82fbd7be>

<sup>3</sup> Regulation of cryptocurrencies. Research of country experiences. 2017. Official website of the Eurasian Economic Commission. Internet-resource. URL: <http://www.eurasiancommission.org> (accessed: 12.09.2021).

national jurisdiction and the perimeter of the national financial system. In the future, the Bank of Russia will still have to establish an appropriate regulatory system, as a number of legal proceedings has already increased in Russian practice regarding the SDC purchase. [4]

Complete prohibition of SDC in a particular country, may not have a significant impact on the volume of transactions using SDC. Moreover, a formal ban can lead to negative economic impact, as one country may restrict the use of SDC while another will support them [5]. The result would be a breach of the principle of establishing an “effective state regulatory system”, since the costs of implementing government regulation should not exceed the benefits of its application. The use of SDC can increase with the development of financial eco-platforms if they decide to settlement in SDC.[6]

In view of the prospects of increasing the volume of transactions in SDC, it is advisable to analyze the main risks associated with their development. It is necessary to identify the factors, determining the increase in demand, and offer tools aimed at regulating and monitoring the use of SDC.

### **RISKS ASSOCIATED WITH THE DEVELOPMENT OF DIGITAL CURRENCIES**

It can be predicted that with the increased user confidence in SDC, the volume of transactions to be performed will increase gradually at first, but then with considerable acceleration. The latter will increase the risks associated with the growth of SDC transactions. Economic shocks can have a significant impact. An example of a similar-scale shock is the COVID-19 pandemic, which creates risks to sustainable economic development.[7] With the pandemic, people in many countries have become wary of making cash payments, which in the

medium term may contribute to an already declining use of cash.[8] Currently, the limitations for widespread use of SDC are their manufacturing technology, requiring huge amounts of electricity; binding of SDC to a certain asset; insufficient level of confidence among most economic actors and some others.

Today's SDC generation technology initially contains internal technological limits for further expanding the use of digital currencies as a payment tool. Removing them will boost the use of innovative SDC. But it should be borne in mind that these limits on the amount of generated SDC are also the internal mechanism of the deficiency of a given asset that supports the value of digital currencies. Therefore, the effective implementation of the new SDC generation technology can only be achieved by simultaneously creating a new internal volume limitation mechanism, for example, by linking the SDC to a group of economic indicators, to a group of assets, etc. Such solutions can spread the SDC risk across several benchmarks and/or assets.

The potential for explosive growth of SDC can be seen in the analysis of their fluctuations on cryptocurrency trading platforms. Against the backdrop of low interest rates, SDC along with new forms of investment, are attractive for investment.<sup>4</sup>

Average volume of transactions of cryptocurrency through Bitfinex<sup>5</sup> from 01 March 2013 to 01 June 2021 was 3.4 bln. USD, which is relatively small compared to the turnover of traditional currencies (e.g., USD, euros and etc.). At certain times, however, cryptocurrency trading platforms experienced a significant increase in transactions, for example, in times of crisis (during the COVID-19 pandemic), against

<sup>4</sup> Digital Disruption in Banking and its Impact on Competition. Organization for Economic. URL: <http://www.oecd.org/daf/competition/digital-disruption-in-financial-markets.htm>.

<sup>5</sup> Cryptocurrency trading platform.

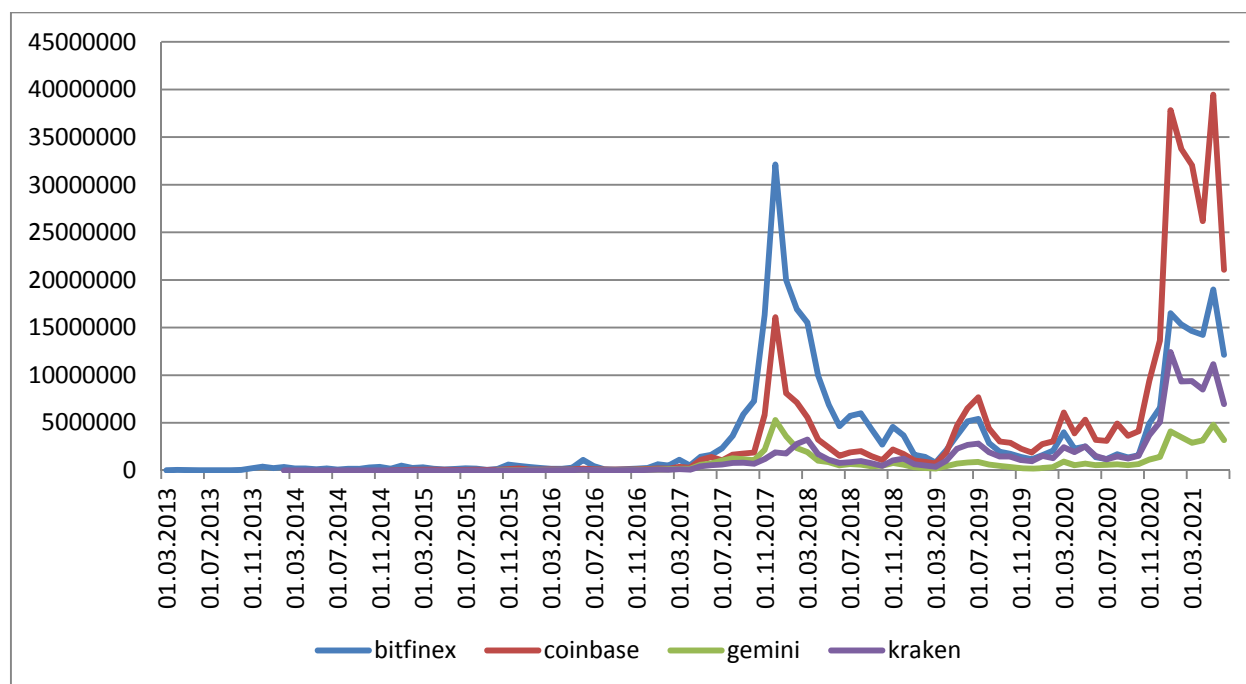


Fig. 1. The volume of cryptocurrency trading through the leading platforms, thousand US dollars

Source: compiled by the authors based on URL: <https://data.bitcoinity.org/markets/volume/all/USD?c=e&t=b&vu=curr>

the backdrop of an overall increase in economic volatility (fig. 1).

Since the attractiveness of SDC depends heavily on the stability of their exchange rate, replacing traditional money with digital currencies is only possible when SDC is used primarily as a non-speculative investment tool, namely as a means of settlements. However, there are SDCs linked to specific national currencies. For example, Tether's digital currency is pegged to the dollar, which determines its exchange rate against the USD and the US economy as a whole, rather than the current speculative mood.

Use of SDC in settlements attracts economic entities without commissions (or minimum commissions) and anonymity in making payments. This is largely due to the fact, that in the last two decades, banking secrecy has been eroding. The old principle "money loves silence" is no longer applicable to traditional banks. The Swiss Federal Court was decided that

banks should transmit to the French tax authority's historical data on taxpayers.<sup>6</sup> Combined with higher taxes and improved tax administration, this has fueled the demand for supranational transactions, uncontrolled national regulators. The development of SDC will entail significant risks in the economy that need to be identified as well as effective management practices developed (see table).

*Reduced effectiveness of state economic regulation.* Rapid changes in payment technology require a corresponding overhaul of state regulation of payment systems. With the projected accelerated increase in SDC payments, public authorities may fail to make the necessary changes to monitoring systems and control the process of the national economy on time. This is because, that the present

<sup>6</sup> The end of bank secrecy? What will change after the decision of the Swiss Federal Court. URL: <https://www.forbes.ru/finansy-i-investicii/381933-konec-bankovskoy-tayny-chto-izmenitsya-posle-resheniya-federalnogo-suda>.

monitoring and control systems are based primarily on the analysis of cash flows, which, if economic agents use SDC for reciprocal payments, would be beyond the government-controlled horizon.

In the absence of effective monitoring tools, state bodies lose a chance to prevent and compensate market crises. It is necessary to develop new tools for early warning of distress on financial market. [9] This is another reason why it is now necessary to start developing mechanisms for state regulation of the economy in relation to conditions, when a viable alternative to the widespread use by national economic agents of supranational payment systems. In parallel, services should be actively developed using digital ruble as a convenient alternative to SDC for the more law-abiding part of national economic actors. Initial testing of the digital ruble platform prototype is planned for Q1 2022.<sup>7</sup>

*Lack of consumer protection.* There is a threat of operational risk related to issues of information theft, use of virus programs, SDC exchange fraud, etc. [10] Although the technology is safe enough at present, the emergence of fraudulent schemes cannot be ruled out in the future. Already now, fraudsters are legalizing obtained money with the help of SDC, which leads to lengthy trials.<sup>8</sup> Without a reliable system of control and regulation, the volume of such fraudulent transactions can become significant. Taking into account the experience of payment systems, SDC smooth functioning should be explored. [11] Since malfunctions are fairly regular in the operation of information services, they can also occur in SDC-based systems, which will have a negative impact not only on the economic agents, who use these systems, but indirectly in the Russian economy as

a whole. In particular, Google's services repeatedly implemented operational risk in 2020–2021 (fig. 2). Even developed ensure continuity systems, which using in Google, are not completely safe from outages (8 service outages were reported in March 2021).

*Dilution of the state budget.* SDC transactions will reduce the effectiveness of fiscal policy. Such cases abound current time for accounts opened abroad. Attempts to levy taxes on accounts that are beyond the control of national Governments do not lead to meaningful results. For SDC payments, the situation will be even worse, as they occur outside the control of any state, and obtain information about them through the conclusion of inter-state agreements it is not possible. That is why it is necessary to find new mechanisms of tax control of economic entities, implying that they can use SDC for mutual payments.

*Loss of the national monetary system.* Increasing demand for SDC as a payment tool will inevitably reduce the use of the national currency by economic agents. This threatens the disappearance of the single monetary system, as well as the stability of the national currency. In this case, the SDC can become an extremely harmful cash surrogate for the state.

*Growth of shadow interaction of economic agents.* Given the fact, that SDC operations are outside the state's control, that is, the probability of an increase in illegal transactions using them, a broadening of the base for financing illegal activities. There is a need for public authorities to develop mechanisms to improve the ability to monitor cash flows in the informal sector. The situation is aggravated by the fact that entities involved in shadow banking are actively involved in the promotion of new financial technologies, which reduces the ability of the state to regulate them. [12]

*Reduced volume of use of national payment infrastructure.* Use of SDC is

<sup>7</sup> Digital rouble concept. Bank of Russia. 2021. URL: [https://cbr.ru/Content/Document/File/120075/concept\\_08042021.pdf](https://cbr.ru/Content/Document/File/120075/concept_08042021.pdf).

<sup>8</sup> Bitcoin on the arm: the seller of the "crypts" has to pay back the money (pravo.ru). URL: <https://pravo.ru/story/230001/>

Table

**Sources of risk associated with the development of IDC (international digital currency)**

Source of risk	Characteristic
Reduced effectiveness of state economic regulation	Economic entities leaving payment systems using SDC will lead to a lower share of payments (of which domestic), available for regulation and control by public authorities
Lack of consumer protection	Since economic entities pay in supranational payment systems, not regulated by the Bank of Russia, mega-regulator has little or no capacity to protect consumers of financial services
Dilution of the state budget	Massive payments between economic agents using SDC will reduce taxes and payments, their contribution to budgets at all levels and to extrabudgetary funds. The latter will reduce the state's capacity to ensure the sustainable socio-economic development of the country and to maintain the necessary level of economic security
Loss of the national monetary system	As the use of SDC for payments increases, the volume of transactions made using the national official currency will decline
Growth of shadow interaction of economic agents	Anonymity of SDC payments provides economic agents with additional opportunities to operate in the informal sector of the economy, which in turn can stimulate the development of shadow banking, but already using digital currencies
Reduced use of national payment infrastructure	Shifting economic actors to supranational infrastructure will reduce demand for national payment infrastructure, reducing its effectiveness and disruption of continuity operation

Source: compiled by the authors.



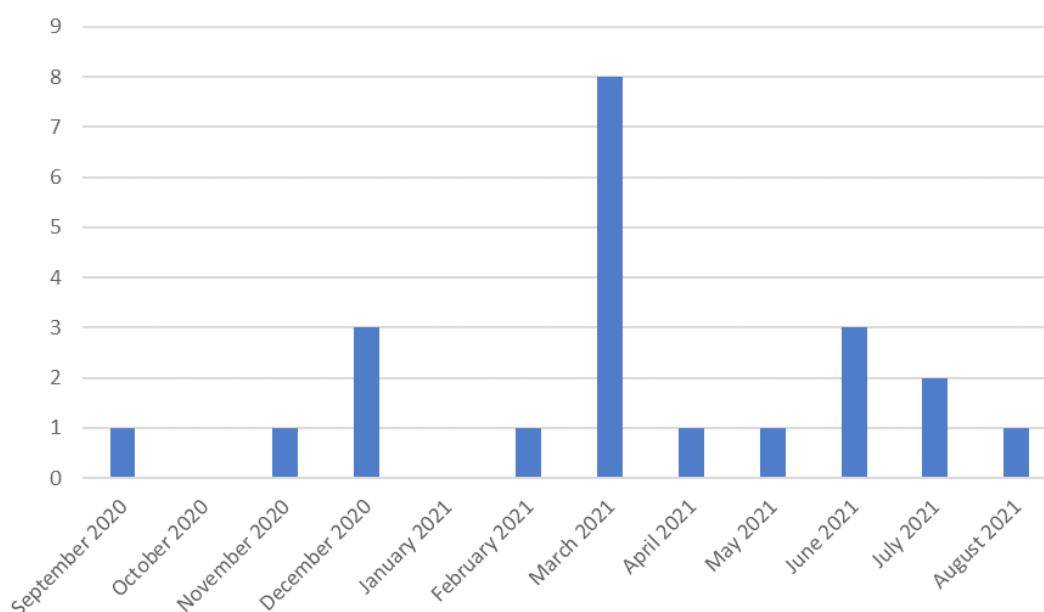


Fig. 2. The number of failures in the work of Google in 2020–2021

Source: compiled by the authors based on URL: <https://downdetector.ru/ne-rabotaet/google/obzor/2020/09/>

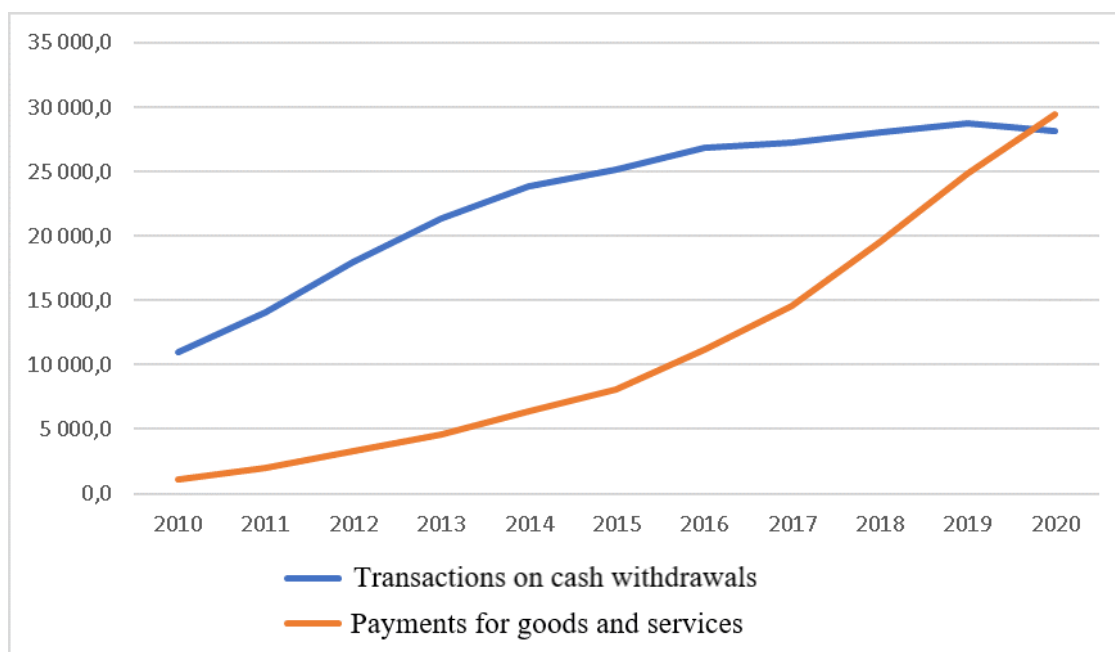
not based on using national payment infrastructure, which determines the decline in profitability of private entities of the national payment system, as well as increased probability of individual participants becoming unstable. In order to neutralize this source of risk, it is advisable to stimulate the development of new efficient business solutions in the sphere of payment systems ensure their functioning. [11]

It should be noted, that the above list of risks is not exhaustive and will be completed both before and after the introduction of high-tech SDC. Reducing the potential negative impact of their implementation is not possible only through appropriate control and regulation, various kinds of prohibitions and repressive measures aimed at encouraging citizens and legal entities to abandon the use of SDC in whole or in part, but also by offering them similar services of digital currencies of central banks. The latter requires an analysis of the factors influencing the willingness of entities to use SDC to make calculations.

### DETERMINANTS OF GROWING DEMAND FOR DIGITAL CURRENCIES BY ECONOMIC AGENTS

Nowadays, SDC is often seen as an investment rather than a means of payment. This situation is related to the existing technological limitations of SDC, and the excessive volatility of their market value, which makes SDC attractive for speculative investment. However, demand for alternative available payment channels is bound to generate a supply supported by fast-growing “fintech”. Therefore supranational payment systems using SDC will come to the fore in the foreseeable future.

The SDC of the future will be free of these disadvantages and will be used primarily as a means of payment. This process is driven by the following factors, encouraging economic agents for the implementation of calculation to SDC: decline in confidence in national currencies, development of financial technologies, in which traditional forms of money “do not fit”, anonymity of settlements in SDC, wide



**Fig. 3. Transactions made on the territory of Russia using payment cards issued by Russian credit organizations, the Bank of Russia and non-resident banks, billion rubles**

Source: compiled by the authors based on URL: <https://www.cbr.ru/statistics/nps/psrf/>.

possibilities of application of international economic sanctions in case of use of SDC,<sup>9</sup> the difficulty of seizing or freezing funds in SDC, low transfer costs and many others.

*Declining confidence in national currencies.* An important factor determining the possibility of money transfers in SDC is the decline in confidence in national currencies. Loss of confidence may be the result of high volatility, economic and political crises and other causes.[13] Fiscal imbalances in many countries were particularly pronounced against the backdrop of the COVID-19 pandemic. The global currency crisis could trigger further expansion of SDC use.

*Advance of financial technologies.* Significantly less convenience of payment in traditional currencies than in digital currencies can lead to the rejection or substantial reduction of payments using money in traditional forms. So far, a similar

movement in Russia is evident within traditional forms: from cash to non-cash payments. For example, payments for goods and services using payment cards in 2020 exceeded transactions on cash withdrawals (fig. 3).

The old technology of paying for goods and services in cash gives way to nothing new and become traditional. It is obviously archaic and has an internal limit for development, to be achieved in the nearest future. The high transaction costs of card payments leave little alternative for transition to more economical calculation technologies. New SDC will have such characteristics, which will have the effect of replacing national currencies with supranational. Partial elimination of this effect is possible due to increasing technological efficiency of “legal” payment channels (of which using digital ruble) at the same time as the cost of their use decreases.

*Anonymity.* Currently, non-cash payments using traditional channels and services are

<sup>9</sup> The absence of restrictions on the application of international economic sanctions.



not anonymous. This increases the need for economic actors to minimize operational risk, related with potential leakage of personalized user information, a certain category of economic entities — and the concealment of information on payments from government regulatory bodies. This encourages the continued use of cash for payments. Since the tendency of economic entities to maintain anonymity in their calculations is unlikely to diminish, the search for a modern alternative to cash will certainly continue. And such an alternative is fully represented by SDC. The digital currency created by the Central Bank should provide a high level of information protection so that only the Central Bank and, in certain cases defined by law, other public authorities have access to transaction data.

*Potential for international economic sanctions if SDC is used.* The growing popularity of economic sanctions imposed by many countries on each other in recent years has increased risks, related to international transfer. As a result, clients lose the ability to freely dispose of their own assets. This was the case in 2019 year when anti-Russian sanctions were imposed on some banks. In particular, the ability to transact through Visa and MasterCard was suspended for clients JSC JSB “Evrofinance Mosnarbank”.<sup>10</sup> SDC are located outside national jurisdictions and therefore outside of political risks.

*The difficulty of seizing or freezing funds in SDC* is similar to the previous factor is an important advantage of the latter over traditional account-based settlements, open to financial organizations of other states. Not only foreign entities but also Russian judicial bodies are becoming an additional attraction for SDC economic entities, if you consider the difficulty in recovering assets.

<sup>10</sup> Evrofinance Mosnarbank — Loans, Deposits, Input, Safety Deposit Boxes, Financing. URL: [https://evrofinance.ru/ru/our-company/news/news\\_640.html](https://evrofinance.ru/ru/our-company/news/news_640.html).

*Low cost of transfer.* The transition to SDC may also be related to the natural tendency of economic agents to save on bank commissions for money transfers. The fast payment system being developed by the Bank of Russia reduces to some extent the impact of the transfer cost factor, encouraging national economic entities to make payments through the Russian financial infrastructure. In addition, ease of use of SDC will promote its active use. In this connection, between the Bank of Russia and credit organizations, on the one hand, and operators of high-tech SDC, on the other hand, there will be a “race” in the development of the system of settlements, improvement and cheaper payment services provided.

### CASH-FLOW MANAGEMENT MECHANISMS TO TAKE INTO ACCOUNT THE ENLARGEMENT OF USE SDC

To manage the risks described above, related to the increased use of SDC as a payment instrument, the state must establish a new system of state control and regulation of the national economy. This system should be appropriate to the scale of the threat and aimed at preventing the free flow of money from state-controlled payment systems to supranational payment systems. It should aim at encouraging economic agents to consciously abandon the use of SDC in their settlements in favor of the national currency, including in the form of a digital ruble. Avoidance of SDC in settlements is more likely for law-abiding economic agents, those who will strive to comply with the state-established rules for the settlement. [14] A wide range of tools is useful for this purpose. Consider some of them in more detail.

*Creation of digital ruble.* The efforts of central banks are commendable, aspiring to create their own digital currencies, including the efforts of the Bank of Russia

to create a digital ruble. The digital ruble can be seen as another form of money alongside traditional: cash and non-cash. Official recognition of the digital ruble by the Bank of Russia and the state forms its fundamental difference from SDC, which is a money surrogate.<sup>11</sup> The key advantage of the digital ruble is that, that its issuer is the Bank of Russia, controlling the volume of digital rubles in circulation.

The digital ruble needs to be made an attractive alternative to SDC in order to prevent the exist economic agents to digital currency-based payment systems. In order to be in demand, the digital ruble must offer at least the same parameters of use as the SDC, including low transfer costs, high payment processing, etc. Of course, the digital ruble cannot be a complete analogue of SDC, because it is inherently linked to the state and does not provide anonymity of payments made in relation to state control bodies, which is of course of interest to a certain category of economic entities. However, a convenient alternative to SDC in the form of a digital ruble will keep within the national monetary system the law-abiding part of economic agents, for which anonymity of payment is not a key parameter determining the choice of payment channel. At the same time, the demand for supranational numerical calculations will be maintained but substantially reduced.

*Improving financial literacy to promote responsible financial behavior among economic agents.* Financial literacy of citizens should be aimed at making them widely aware of possible legal and economic risks, related to the use of SDC in

calculations, as well as to the development of confidence in the digital ruble. Special emphasis should be placed on working with young people who are active in using financial technology — “fintech”.

*Improvements in payment technologies used in state-controlled payment systems.* There is a need for continuous analysis of emerging technologies, forecasting of their development trends with immediate implementation of innovations in the state-controlled payment infrastructure. Only such an approach will give the chance to keep up with the race in payment technology and will reduce the incentive of economic agents to use SDC for settlements.

*Increased liability for concealment of payments using SDC.* In addition to incentives, explicit restrictions on the use of SDC for calculations should also be actively used. There is also a need to tighten the liability of economic entities for not including payments in SDC in accounting and financial reports.

*Monitoring by proxy-indicators.* Given the difficulty of public authorities accessing direct information on payments made to SDC, for implementing the fiscal function of the state will have to transform the existing tax and tax administration system, based primarily on control of cash flows and payments. It is clear that the lack of verifiable information on payments made in SDC will require the collection and comprehensive analysis of non-financial data and its comparison with the declared information on payments made by economic agents. In such a case, the identification of inconsistencies (preferably using artificial intelligence systems) would warrant further study and analysis of the activities of the economic actor.

*Control of commodity flows.* There is a need to develop a system for monitoring the movement of goods and services. Such systems have now been implemented the introduction of mandatory product

<sup>11</sup> A reliable marker differentiating money and cash surrogates is the criterion of “recognition by the state”. The digital ruble is recognized by the Bank of Russia as a means of calculation, which means that it should be considered as a means of payment. SDC (for example, Bitcoin) is not recognized by the Bank of Russia, and is therefore a cash surrogate. One of the key risks to the monetary system of the state is the transition of economic agents to large-scale use of cash surrogates.

labelling. This practice has been applied in Russia since 2017 with the adoption of the Federal Act from 31 December 2017 No. 487 “On amendment of article 4.7 of the Federal Act “On the use of cash control equipment in cash settlements and (or) settlement by electronic means of payment” and articles 5 and 8 of the Federal Act “Principles of state regulation of trade activities in the Russian Federation”. Since that SDC calculations cannot be effectively traced (at the current level of information technology) it will be necessary to track the flows of the goods and services themselves. Monitoring of services may be difficult. At the same time, mechanisms for self-employed citizens monitoring could be used to regulate the provision of services.

*Development of imputed taxes.* Extending the use of imputed taxes is advisable, as when economic agents use SDC for mutual payments it will be difficult to assess the real volume of business transactions. This will eliminate the main motivation for using SDC in settlements for many economic entities.

*Monitoring the digital footprint of perfect payments in SDC.* High-tech ways of moving economic agents into the informal economy must be resisted by equally modern methods of counteracting this dangerous phenomenon. Because the Internet is needed for SDC settlements, it probably, Automated Network Activity Tracking Systems will be useful for monitoring the process, which digital currency converters.

It should be noted that, with a view to active development of digital currencies and

the risks of increasing demand for payments, non-binding government measures are required.

## CONCLUSION

The development of SDC is a significant factor in the development of digital financial technologies and the current trend towards financial eco-platforms (and not just government banks). With technological refinements, SDC will gain competitive advantages over traditional forms of money. The state faces a real risk of losing control over cash flows at the national level. The risks associated with the use of SDC will increase with the growing demand of economic agents to make settlements using them. The main downside to this scenario is the reduced capacity of the state to implement fiscal policies, and, consequently, its core functions financed from the state budget.

Such a dangerous development can be expected on the horizon of 7–10 years. The period can be adjusted to the dynamics of financial technology, political and economic factors. Public authorities face the challenge of finding new approaches to regulating national economic transactions. They also need to offer economic actors new financial instruments comparable to SDC, reducing the attractiveness of payments in digital currencies by all reasonable legal, economic and technological methods.

Further research should seek to identify new regulatory tools and develop each of them individually to determine the optimal parameters for their use.

## REFERENCES

1. Dubinin S.K. The modern financial conglomerates competition. *Mirovaya ekonomika i mezhdunarodnye otnosheniya* = *World Economy and International Relations*. 2021;65(8):14–21. (In Russ.). DOI: 10.20542/0131-2227-2021-65-8-14-21
2. Borkova E. A. Gilmanov D. V. Bitcoin. Historical parallels and development prospects in the world market. *Ekonomicheskie otnosheniya* = *Journal of International Economic Affairs*. 2019;9(1):327–338. (In Russ.). DOI: 10.18334/eo.9.1.39973
3. Bauer V. P., Smirnov V. V. Institutional features of the development of competitive cryptocurrency. *Finansy: teoriya i praktika* = *Finance: Theory and Practice*. 2020;24(5):84–99. (In Russ.). DOI: 10.26794/2587-5671-2020-24-5-84-99
4. Yankovskiy R. M. Cryptocurrencies in the Russian law: Surrogates, “other property” and digital money. *Pravo. Zhurnal Vysshei shkoly ekonomiki* = *Law. Journal of the Higher School of Economics*. 2020;(4):43–77. (In Russ.). DOI: 10.17323/2072-8166.2020.4.43.77
5. Xie R. Why China had to “ban” cryptocurrency but the U.S. did not: A comparative analysis of regulations on crypto-markets between the U.S. and China. *Washington University Global Studies Law Review*. 2019;18(2):457. URL: [https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=1684&context=law\\_globalstudies](https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=1684&context=law_globalstudies)
6. Maslennikov V. V., Larionov A. V., Maslennikov S. V. Conceptual approaches to the development of a new unified strategy for the development of the Russian financial market. *Ekonomika. Nalogi. Pravo* = *Economics, Taxes & Law*. 2021;14(3):6–19. (In Russ.). DOI: 10.26794/1999-849X-2021-14-3-6-1
7. Portanskiy A., Sudakova Yu., Larionov A. Assumptions of the global economic crisis and its inception in the spring of 2020 due to the COVID-19 pandemic. *Vestnik mezhdunarodnykh organizatsii: obrazovanie, nauka, novaya ekonomika* = *International Organisations Research Journal*. 2020;15(2):191–212. (In Russ.). DOI: 10.17323/1996-7845-2020-02-09
8. Auer R., Cornelli G., Frost J. Covid-19, cash, and the future of payments. *BIS Bulletin*. 2020;(3). URL: <https://www.bis.org/publ/bisbull03.pdf> (дата обращения: 12.09.2021).
9. Betz F., Oprică S., Peltonen T. A., Sarlin P. Predicting distress in European banks. *Journal of Banking & Finance*. 2014;45:225–241. DOI: 10.1016/j.jbankfin.2013.11.041
10. Larina O. I., Akimov O. M. Digital money at the present stage: Key risks and development directions. *Finansy: teoriya i praktika* = *Finance: Theory and Practice*. 2020;24(4):18–30. (In Russ.). DOI: 10.26794/2587-5671-2020-24-4-18-30
11. Masino M. N., Larionov A. V., Masino N. N. Uninterrupted functioning of the payment system: Recommendations for managing the continuity of the functioning of the payment system. *Bankovskoe delo* = *Banking*. 2020;(9):44–51. (In Russ.).
12. Usoskin V. M. Shadow banking: Regulatory reform and its effectiveness. *Finansy: teoriya i praktika* = *Finance: Theory and Practice*. 2019;23(4):69–79. (In Russ.). DOI: 10.26794/2587-5671-2019-23-4-69-79
13. Sergeyev V. M. On the deeper roots of the modern financial crisis. *Polis. Politicheskie issledovaniya* = *Polis. Political Studies*. 2009;(3):47–53. (In Russ.).
14. Maslennikov V. V., Larionov A. V. Impact of the behavioral cycle on cash flow formation. *Finansy: teoriya i praktika* = *Finance: Theory and Practice*. 2020;24(5):100–111. (In Russ.). DOI: 10.26794/2587-5671-2020-24-5-100-111

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