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ŚWIATOWY TREND BANKOWY: CBDC JAKO WYZWANIE DLA KRYPTOWALUT

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Adnotacja. Nowe cyfrowe formy pieniędzy mogą umożliwić tańsze i szybsze płatności, zwiększyć dostępność finansową, zwiększyć odporność i konkurencję wśród dostawców usług płatniczych oraz ułatwić przelewy transgraniczne. W tym celu należy podjąć trudne decyzje polityczne: wyjaśnić role sektora publicznego i prywatnego w zapewnianiu bezpieczeństwa i regulowaniu cyfrowych form pieniądza. Cel badania: ewolucyjny wybór banków centralnych do digitalizacji swoich walut fiducjarnych na tle rozwoju aktywów kryptograficznych. Cel artykułu określa metody badawcze: stosowane są ogólne naukowe metody badawcze i specjalnie prawne metody poznania. Co ogólnie pozwoliło na wyciągnięcie właściwych wniosków. Zrównoważone podejście do wyrotowych technologii FinTech polega na wyeliminowaniu ich szkodliwych skutków. Czekają ich nowy etap istnienia, już na podstawie prawnej, w którym zdominują bardziej odpowiedzialni gracze. CBDC zawdzięcza swemu powstaniu właśnie szybkiemu wzrostowi kryptowalut. To ich zwycięstwa i porażki są satysfakcjonującym doświadczeniem, które tylko przyspiesza proces nieuniknionego wdrożenia CBDC. Na tle rozwoju CBDC istnieje możliwość ściślejszej regulacji kryptowalut i spadku ich popularności.

Słowa kluczowe: bankowość cyfrowa, FinTech, aktywa wirtualne, Bitcoin, pieniądz elektroniczny, pieniądz zastępczy.

GLOBAL BANKING TREND: CBDC AS A CHALLENGE TO CRYPTOCURRENCIES

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Abstract. New digital forms of money have the potential to provide cheaper and faster payments, expand financial inclusion, increase sustainability and competition among payment service providers, and facilitate cross-border transfers. For this to happen, there are not simple policy decisions to be made: clarifying the roles of the public and private sectors in securing and regulating digital forms of money. Research Objectives. The evolutionary choice of central banks to digitize their fiat currencies against the background of the development of crypto-assets. The aim of the article determines the research methods. General scientific methods of research and specially – legal methods of knowledge were used. That in general made it possible to draw the right conclusions. A sustainable approach to disruptive FinTech technologies is to eliminate their harmful effects. A new phase of their existence awaits them, on a legal basis, where more responsible players will dominate. CBDC is grateful for its emergence precisely because of the rapid growth of cryptocurrencies. It is their victories and defeats – it is a useful experience that only accelerates the process of the inevitable implementation of CBDC. With the development of CBDCs, there is a possibility of stricter regulation of cryptocurrencies and a decline in their popularity.

Key words: digital banking, FinTech, virtual assets, bitcoin, electronic money, money surrogate.

СВІТОВИЙ БАНКІВСЬКИЙ ТРЕНД: CBDC ЯК ВИКЛИК КРИПТОВАЛЮТАМ

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Анотація. Нові цифрові форми грошей можуть забезпечити дешевші та швидші платежі, розширити фінансову інклюзію, підвищити стійкість та конкуренцію серед постачальників платіжних послуг, а також полегшити транскордонні перекази. Для цього необхідно прийняти непрості політичні рішення: уточнити ролі державного та приватного секторів у забезпеченні безпеки та регулюванні цифрових форм грошей. Мета дослідження: еволюційний вибір центральних банків щодо оцифрування своїх фіатних валют на тлі розвитку крипто-активів. Мета статті визначає методи дослідження: використано загальнонаукові методи дослідження та спеціально-юридичні методи пізнання. Що в цілому дозволило зробити правильні висновки. Сталий підхід до підривних FinTech-технологій полягає в усуненні їх шкідливих наслідків. На них чекає новий етап існування, вже на правовій основі, де домінуватимуть більш відповідальні гравці. CBDC завдячує своєю появою саме стрімкому зростанню криптовалют. Саме їхні перемоги та поразки – це корисний досвід, який лише прискорює процес неминучого впровадження CBDC. На фоні розвитку CBDC є ймовірність більш жорсткого регулювання криптовалют та спад їх популярності.

Ключові слова: цифровий банкінг, FinTech, віртуальні активи, біткоїн, електронні гроші, грошовий сурогат.

Introduction. Alfred Kelly, CEO of Visa Financial Corporation, believes that blockchain technologies can be integrated into next-generation payment systems. He stated this during the annual meeting with the company's shareholders. According to the head of Visa, the company invests in the development of the payment ecosystem, but has also invested a "small amount of money" in crypto funds and firms: "It's still very early, but we continue to believe that stablecoins and CBDCs have great potential for payments," Kelly said. ("CEO Visa Заявив Про Важливу Роль Стейблкоїнів Та CBDC", 2023)

However, as electronic payments became synonymous with digital payments in many countries, there was still one doubt among much of the population that eventually became the subject of discussion: "But we already make payments digitally, right? So why do we need something called Central Bank Digital Currency (CBDC)?" (Anupam, 2022)

It is true that deposits held in commercial banks today are already digital and can be moved electronically via credit and debit cards and mobile payment applications. However, this form of digital money is the responsibility of private banks, which must maintain reserves and deposits. CBDCs are the responsibility of the government (just like cash is today), which means that the central bank will have to back them up. (Kumar et al., 2020)

New digital forms of money have the potential to provide cheaper and faster payments, increase financial inclusion, increase sustainability and competition among payment providers, and facilitate cross-border transfers. But this is not easy to do. It requires significant investment, as well as complex policy decisions, such as clarifying the roles of the public and private sectors in providing and regulating digital forms of money. Central banks are considering issuing digital currencies – digital money issued in the form of a central bank obligation. (IMFBlog, 2021)

Aims and methods. As with other evolutionary stages in the movement of money, ever since humanity moved from bartering its goods to more formalized units of account. And so today, against this backdrop of evolutionary choices, humanity faces a sobering choice as to whether it is wise for central banks to digitize their fiat currencies or stay behind crypto-assets.

The aim of the article determines the research methods. The research was conducted using: a) general scientific methods of research – deduction and induction, synthesis and analysis, scientific abstraction, systematic approach; b) specially – legal methods of cognition – formal legal method; legal forecasting, retrospective and comparative legal method; methodological substantiation of the essence, nature and structure of the terminology which is the object of research.

Results.

1. Appreciate understanding CBDC. A central bank digital currency (CBDC), or national digital currency, is simply a digital form of a country's fiat currency. Instead of printing paper bills and minting coins, the central bank issues electronic tokens whose value is backed by the full faith and credit of the government. (Kumar et al., 2020)

International Monetary Fund (IMF): «*A digital form of existing fiat money that is issued by a central bank and serves as legal tender*» (IMFBlog, 2021; *International Monetary Fund*, 2023).

European Central Bank (ECB): «*A digital form of fiat money that is publicly available, issued by the state and has the status of legal tender*» (Burlon et al., 2022; *European Central Bank*, 2023a).

Bank for International Settlements (BIS): «An electronic form of a national currency issued by a central bank that is obliged to back it» (Bank for International Settlements, 2023; Central Bank Digital Currencies, 2018).

Board of Governors of the Federal Reserve System of the USA (FRS): «It is a digital form of central bank money that is widely available to the general public. "Central bank money" refers to money that is an obligation of a central bank. In the United States, there are currently two types of central bank money: physical currency issued by the Federal Reserve and digital balances held by commercial banks in the Federal Reserve System. While Americans have long held money primarily in digital form – for example, in bank accounts, payment apps, or through online transactions – CBDC will be different from existing digital money available to the general public because CBDC will be a liability of the Federal Reserve, not a commercial bank». (FRS – Frequently Asked Questions, 2022)

To achieve this goal, let us consider the conceptual models of CBDC implementation proposed in one of the studies of the International Monetary Fund (IMF), which are presented in a grouped form in Table 1.

The IMF offers three models for implementing CBDCs. Because, according to the IMF, there is no one-size-fits-all case for CBDCs, as each economy is different (Georgieva & Council, 2022).

2. Global trends in CBDC implementation. As of the beginning of 2022, according to the Bank for International Settlements (BIS) statistics, there are three fully operational CBDCs in the world and at least 28 pilot projects are at various stages of implementation. And 68 central banks have publicly announced the start of their work on CBDCs (BIS., January 2022).

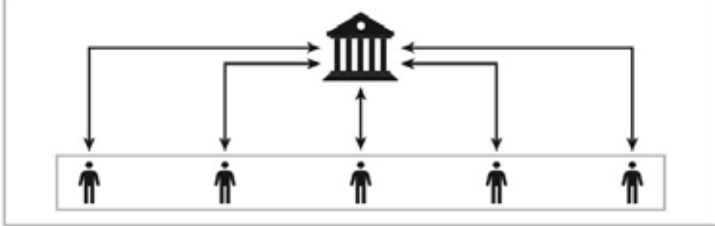
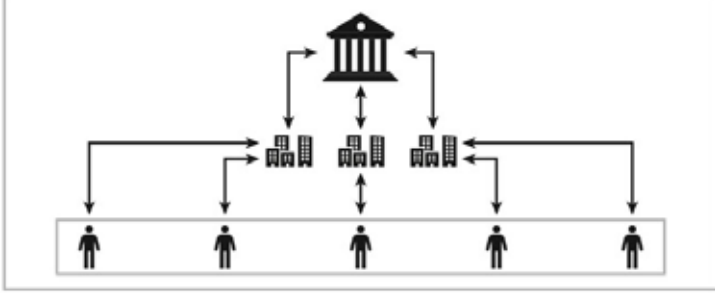
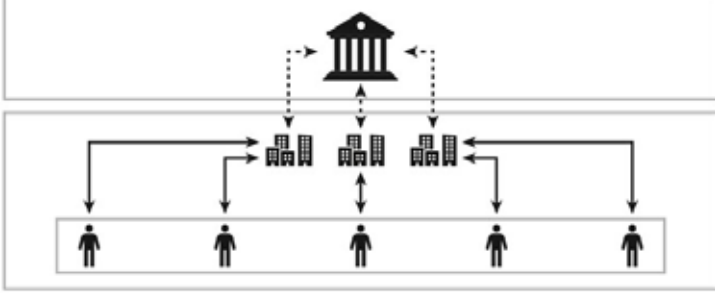
Also, data from another think tank, the Atlantic Council, as of the beginning of 2023, shows that more than 100 countries are actively studying CBDC at the research and development stage. (“Central Bank Digital Currency (CBDC) Tracker,” 2023)

Countries that are exploring CBDC in one way or another (Shumba, 2022) in 2022 can be conditionally classified as: researching CBDC, inactive CBDC (suspended CBDC research), developing CBDC (technical assembly and testing in the laboratory), having a CBDC pilot project, launching CBDC, canceling CBDC (Arslanian et al., 2021; Central Bank Digital Currency Tracker, 2022; Das, 2022):

Researchers: The United States, Jamaica, Chile, Russia, Kazakhstan, Turkey, Iran, Pakistan, India, Israel, Palestine, Lebanon, Tunisia, Ghana, Kenya, Rwanda, Madagascar, Eswatini, Mauritius. Japan, Taiwan, Indonesia, Philippines, Australia, New Zealand;

Table 1

Promising CBDC architectures (Soderberg, 2022)

№	Description	Graphical model
A.	Unilateral CBDC: Central bank issues money and performs all functions, including direct interaction with end users	
B.	Intermediated CBDC: Central bank issues money, but delegates functions to non-central bank intermediaries who interact with end users	
C.	Synthetic CBDC: Non-central bank actors issue money that is backed by central bank assets that they acquire from the central bank (dashed line)	

Source: IMF staff.
Note: CBDC = central bank digital currency.

inactive: Finland, Estonia, Lithuania, Denmark, Italy, Morocco, Egypt, South Korea, Haiti, Trinidad and Tobago. Uruguay, under development: Canada, Venezuela, France, UAE, Cambodia;
 pilot projects: Dominican Republic, St. Vincent and the Grenadines, St. Kitts and Nevis, Antigua and Barbuda, St. Lucia, Grenada, Bahamas, Sweden, Ukraine, China, Thailand, Republic of Korea, Singapore;
 launched for widespread use: Brazil;
 canceled, i.e., decommissioned: Senegal, Ecuador.

Pilot projects of countries implementing retail (China and Ukraine), wholesale or mixed forms (China) can be classified separately.

3. Recent events in the U.S. The US Federal Reserve has not yet reached a final conclusion on the launch of CBDCs. This was stated by the chairman of the agency, Jerome Powell, at a conference dedicated to the role of central banks in digital asset markets. According to him, a "positive decision" on this issue will not be made "for some time." For now, the Fed, in cooperation with Congress and other government officials, will focus on policy evaluation and technological issues. Jerome Powell emphasized that if adopted, the digital dollar will have the following key characteristics: privacy protection; participation of intermediaries; identity verification; compatibility. ("Глава ФРС Заявив Про Відсутність Рішення Щодо Запуску CBDC," 2022)

U.S. lawmakers have drafted a bill that would impose a two-year ban on the issuance of algorithmic stablecoins. According to the draft law, the moratorium would apply to stablecoins whose price depends on the value of another digital asset from the same founding team, as well as those sold as capable of conversion, redemption, or other redemption at a fixed price. The draft law also stipulates that the Ministry of Finance, together with the US Federal Reserve, the Securities and Exchange Commission and other US regulators, should conduct a study on algorithmic stablecoins. In addition, this draft law allows banks to issue stablecoins only with the permission of regulators. For applications of other institutions that want to become issuers of such assets, a separate decision-making process should be established by the US Federal Reserve.

However, its provisions may still change before the final version of the bill is released. (*House Stablecoin Bill Would Put Two-Year Ban on Terra-Like Coins (XUT) – Bloomberg*, 2021; "США Заборонять Випуск Алгоритмічних Стейблкоїнів На 2 Роки," 2022)

4. Recent events in Europe. On January 16, 2023, the European Central Bank released the report "Digital euro – stock take", which reflected the prospects for the introduction of the digital euro. (European Central Bank, 2023b)

In early 2023, Eurozone finance ministers discussed the potential introduction of the digital euro: Euro area enlargement; Digital euro; Energy support to households and firms; Economic situation in the euro area. (<https://t.co/2viPj3HyjU> pic.twitter.com/qcPLuYQDU2— EU Council (@EUCouncil) January 16, 2023).

Members of the so-called Eurogroup (*Eurogroup Statement on the Digital Euro Project, 16 January 2023*, 2023) emphasized that the introduction of the digital euro requires decisions that "should be discussed and adopted at the political level." The creation of the asset requires an appropriate legal framework involving the European Parliament and the Council of the EU based on a proposal from the European Commission.

According to the statement, the digital euro should: complement, not replace, cash; be secure and stable, ensure a high level of privacy; and act as a simple and easy-to-use tool that is widely available to the public.

CBDCs can play a key role in an increasingly digitalized economy, the Eurogroup members noted. They also believe that the asset should prevent money laundering, tax evasion and ensure compliance with sanctions. The Eurogroup supported the study of the CBDC's offline operation. Its members also pointed out the need to limit "potential risks to financial stability, for example by setting limits and restrictions" on the use of the digital euro. The technical basis of the asset should be based on the experience of public and private participants and rely on European infrastructure, the statement said. Compatibility with other CBDCs should be an important feature of the digital euro, in particular for cross-currency transactions, the Eurogroup members noted.

The final decision on the issue of the digital euro has not yet been made. The results of the asset realization study will be reviewed in the fall of 2023. (*Eurogroup Statement on the Digital Euro Project, 16 January 2023*, 2023; "Міністри Фінансів ЄС Оприлюднили Заяву Щодо Цифрового Євро," 2023)

5. Recent events in Ukraine. On 30.06.2021, the Parliament of Ukraine adopted the Law of Ukraine No. 1591-IX "On Payment Services" (hereinafter – Law 1591) (Про платіжні послуги, 2021), which first introduced the concept of "digital money of the National Bank of Ukraine" (hereinafter – digital money, digital hryvnia, e-hryvnia) at the level of law; this law entered into force on August 01, 2022.

On January 13, 2023, Taskombank announced the results of its pilot project to issue electronic money denominated in hryvnia. The report contains information for the National Bank of Ukraine and the Ministry of Digital Transformation of Ukraine on the benefits of issuing electronic money on the blockchain. (Таскомбанк, 2023a, 2023b)

Based on the results of the pilot project, a number of conclusions have been drawn regarding the implementation of CBDC. Distributed ledger technology (blockchain) in the context of its application to the issuance and circulation of electronic currency has two key aspects:

First, tokenization means that money is a physical token, making it impossible for two people to own the same token. This means that the ownership of money is easy to determine (without the need for complex or time-consuming reconciliation) and easy to understand for consumers familiar with cash.

Second, decentralization means that money exists in a distributed infrastructure that is efficient, fault-tolerant, and resilient to single points of failure. Proven consensus algorithms and modern cryptography ensure that the entire network agrees on a single transaction history and that money cannot be stolen or manipulated.

These unique characteristics combine to create a number of important benefits:

a. Real-time end-to-end settlement. Settlement can be made in real time, instead of hours or days as with some other payment methods

b. Significant reduction in the cost of maintaining the transaction network and the cost of transactions for users, as well as connecting merchants

c. Promoting financial inclusion. Using a digital wallet is generally easier than using a full banking service, which means that it should be cheaper and easier for individuals to store and use such money, especially in rural areas outside the banking sector's service area. This could help provide people without bank accounts with access to vital digital financial services

d. The ability to facilitate cross-border transactions in the future. A decentralized infrastructure for electronic or digital money is global, meaning that transactions are efficient regardless of the location of the sender and receiver.

e. Potential elimination of the correspondent bank chain

f. Possibility of using such electronic money in the future in circulation with virtual assets

g. The programmability of money allows for the targeted distribution of assets to achieve the objectives set at the state level, including social benefits and humanitarian programs. (Таскомбанк, 2023а, 2023б)

As part of a further study of the possibilities of implementing blockchain technologies, it is planned to monitor the capabilities of the Stellar blockchain-based smart contract platform, which has been undergoing open testing since early 2022 as part of the Soroban project (<https://soroban.stellar.org/docs>). This open smart contract system can be integrated with any blockchain and provides users with tools for programming their own smart contracts for any token transactions or other purposes, which allows, among other things, to use the platform to customize the rules for issuing and circulating CBDCs. (Таскомбанк, 2023а)

6. Recent developments in other countries.

India. On February 1, 2022, while announcing the Union Budget 2022, India's finance minister Nirmala Sitharaman announced the CBDC project. This along with the FM's announcement pertaining to crypto taxation received an overwhelming response from hundreds of founders, investors including Paytm's Vijay Shekhar Sharma, Cred's Kunal Bahl, Binance founder and CEO Changpeng Zhao and Sriram Krishnan appreciating the government move to launch digital currency and move a step further towards regulating crypto.

Testing of the digital rupee started in November 2022. Reserve Bank of India (RBI) Governor Shaktikanta Das predicted that CBDCs will only grow in popularity among other countries in the future: "[...] This is how the world will develop. Soon, more and more central banks will start using them". (*"Current Credit Growth Is Far From Economic Exuberance", Says RBI Governor Shaktikanta Das – YouTube, 2022; "У ЦБ Індії Попередили Про Фінансову Кризу Через Криптовалюти," 2022*)

Turkey. The Turkish President's program for 2023 contains a plan to prepare for the launch of the digital lira. This is reported by CoinDesk with reference to the State Strategy and Budget Office. The project is entrusted to the Central Bank, the Ministry of Finance, and the country's Scientific and Technical Research Institute. The national digital currency (CBDC) will be integrated with the regulator's digital identification and payment system FAST. The Central Bank of Turkey will conduct research and development, as well as testing in cooperation with other banks. (*Central Bank of Turkey Plans to Launch a CBDC in 2023, 2022; "ЦБ Туреччини Розгляне Можливість Запуску CBDC," 2022*)

Kazakhstan. The National Bank of Kazakhstan is integrating its own digital currency (CBDC) into the BNB Chain blockchain. This was announced by the head of Binance Changpeng Zhao (National Bank of Kazakhstan (NKB) will integrate their CBDC on @BNBchain. #BNB <https://t.co/33WMKwAczm> — CZ Binance (@cz_binance) October 27, 2022). According to him, after obtaining a license from the Astana International Financial Center Committee to manage the digital asset platform and provide custodial services in Kazakhstan, the company's team met with representatives of the country's Central Bank. These meetings focused on testing the integration of the digital tenge being developed by the Central Bank of Kazakhstan with the Binance-backed BNB Chain network. Recently, the Central Bank of Kazakhstan started testing CBDC among real consumers and merchants as part of a pilot project. (*"ЦБ Казахстану Інтегрує Цифровий Тенге з BNB Chain," 2022*)

Discussion. The motivations for issuing CBDC vary across countries and regions, and the policy approach and technical designs will also differ, according to research by Bloomberg Economics. (*"Here's How a Central Bank Digital Currency Could Work," 2021; Yoshinaga, 2022*)

USA. At a conference dedicated to the role of central banks in digital asset markets, US Federal Reserve Chairman Jerome Powell noted that the downturn in the cryptocurrency market gives regulators more time to identify and address weaknesses in industry regulation. The Fed chairman pointed to "significant" structural problems and lack of transparency in the decentralized finance segment. In his opinion, there is a need to regulate "non-custodial wallets and algorithms" as well as "proper supervision" of stablecoins. (*"Глава ФРС Заявив Про Відсутність Рішення Щодо Запуску CBDC," 2022*)

To the Presa (*House Stablecoin Bill Would Put Two-Year Ban on Terra-Like Coins (XUT) – Bloomberg, 2021*), the United States has also developed a draft law that provides for a two-year ban on the issuance of algorithmic stablecoins. (*"США Заборонять Випуск Алгоритмічних Стейблкоїнів На 2 Роки," 2022*)

Lawyer Jack Czerwinski believes that it was the TerraUSD collapse that led to the US regulators choosing a rather tough policy towards the industry. The collapse of the Terra ecosystem affected the entire market. Several large companies that held large amounts of UST, including Celsius, were forced to file for bankruptcy. (*House Stablecoin Bill Would Put Two-Year Ban on Terra-Like Coins (XUT) – Bloomberg, 2021*; “США Заборонять Випуск Алгоритмічних Стейблкоїнів На 2 Роки,” 2022)

Earlier, the White House presented a concept for regulating the crypto industry. Among other things, it envisages strengthening control procedures for providers of digital asset-related services (*Fact Sheet: White House Releases First-Ever Comprehensive Framework for Responsible Development of Digital Assets, n.d.*).

EU. Representatives of the European Parliament's Economic and Monetary Affairs Committee (ECON) have voted to introduce strict requirements for local banks to hold digital assets, Reuters reports. (Jones, 2023b)

The text of the document was obtained by Reuters on the eve of the vote. ECON members agreed on a credit risk ratio for cryptocurrencies of 1250%. This percentage is the highest level of securitization according to international banking standards. When the rules come into force, traditional financial institutions will have to fully provide reserves, and they will not be able to use leverage. (Jones, 2023a)

European Parliament member Marks Ferber said: "Banks will be required to hold a euro of their capital for every euro in cryptocurrency. Such high asset requirements will help protect the financial system from the instability of the crypto industry." (“В ЄС Запропонували Вимоги До Зберігання Криптовалют Банками,” 2023)

But it should be borne in mind that in order for the draft law to enter into force, it must be approved by members of the European Parliament.

The World Economic Forum (WEF) has predicted the future of cryptocurrencies. The forecast was announced as part of the annual meeting in Davos in January 2023. The year 2022 is called a terrible year for crypto due to the loss of 2 trillion in market value. Not without sarcasm, the WEF calls the situation on the market not a "crypto winter" but an "ice age". The era of cryptocurrency speculation is forever buried in the ice. It will be followed by a "Cambrian explosion" of responsible and always accessible online finance.

We are advised to watch closely what the big banks and mature players in the global financial market are doing (not saying). It is about continuing their experiments with blockchain technology and cryptography. Jamie Dimon, Chairman and CEO of J.P. Morgan, comes to mind here. At first, he is known to have threatened to fire employees who trade crypto. Suddenly, J.P. Morgan enters the cryptocurrency market. And not just enters, but starts trading digital assets and launches its own JPM Coin token. And J.P. Morgan is far from the only financial shark exploring the Web3 ocean.

At one time, big business reluctantly agreed to digital transformation and started working on cybersecurity. Gradually, but inevitably, the "money bags" will start using crypto technology. "Crypto technology remains a major actor in the global financial world," the WEF is confident.

The WEF states: "Perhaps 2022 will mark the transfer of crypto technology and blockchain infrastructure into more secure hands." How does the WEF see the responsible use of blockchain technologies?

1. The Forum has helped central banks create, test, and scale blockchain implementation guidelines. The emphasis is on central bank digital currencies.

2. The Redesigning Trust with Blockchain in the Supply Chain initiative is the use of blockchain in the supply chain.

3. The Center for the Fourth Industrial Revolution (UAE) is testing the use of digital assets and tokenization in financial systems. (*ВЕФ прогнозує, що контроль над криптою стане прерогативою глобальних компаній, n.d.*)

Ukraine. In its report on the pilot project, TAMKOMBANK (which participated in the project) also touched upon the topic of CBDC. Among other things, he noted that one of the issues that central banks around the world consider when discussing the design of a CBDC is who will be the entity that will perform the functions of onboarding, studying the wallet owner (KYC), interacting with him, etc. This is a question without an obvious answer. After all, it is closely related to another one – whether the demand for central bank digital money in a wallet at a commercial bank (the so-called two-tier model) will be sufficient compared to the demand provided by the concept of "digital cash" – digital money with a direct claim on the central bank (one-tier model). In other words, where exactly is the niche in which the role of a commercial intermediary becomes economically viable? This is something to think about before selecting the next hypotheses for the following pilot projects. (Таскомбанк, 2023а)

India. Raghuram Rajan, an economist and former governor of the Central Bank of India, believes that regulators should avoid bans on innovative technologies. He told CoinDesk at the World Economic Forum (WEF) in Davos 2022. Raghuram Rajan said that cryptocurrencies as a class of speculative assets have faced problems. However, in his opinion, this does not mean that technology should be restricted: "I think you need to be very careful with bans, because it can stop development. You need to allow controlled freedom, but take measures to prevent fraud." The former official also noted that the future of digital assets depends on whether they can coexist with traditional finance. (Handagama, 2023; “Експолова ЦБ Індії Закликав Регуляторів Бути Обережними Із Заборонами Стововно Іновацій,” 2023)

Reserve Bank of India (RBI) Governor Shaktikanta Das said during the Business Standard BFSI Insight Summit that "private cryptocurrencies" should be banned. In his opinion, they will cause the next economic crisis. The head of India's RBI emphasized that digital assets have no real value, and their proliferation provokes risks to macroeconomic and financial stability: "I believe that the term private cryptocurrency is just a fashionable description of what

is otherwise known as 100% speculative activity." "Current Credit Growth Is Far From Economic Exuberance", Says RBI Governor Shaktikanta Das – YouTube, 2022; "У ЦБ Індії Попередили Про Фінансову Кризу Через Криптовалюти," 2022)

In addition to the aforementioned statements, Reserve Bank of India (RBI) Governor Shaktikanta Das predicted that CBDCs will only grow in popularity among other countries: "It is not a matter of fear of losing something or competing with private cryptocurrencies. [...]". ("Current Credit Growth Is Far From Economic Exuberance", Says RBI Governor Shaktikanta Das – YouTube, 2022; "У ЦБ Індії Попередили Про Фінансову Кризу Через Криптовалюти," 2022)

Conclusions. FinTech and blockchain infrastructure will remain the most important trend-setting tools of the modern economy. A sustainable approach to disruptive technologies is to eliminate their harmful effects. This will lead to the fact that they will definitely have a steady tendency to move to a new historical and natural stage of their existence, on a legal basis that has been actively developed in recent years, where more authoritative and responsible players dominate.

The existence of cryptocurrencies has led to the emergence of CBDCs. And the rapid development of cryptocurrency technologies, and their victories and defeats, is a useful experience, which only accelerates the process of inevitable implementation of CBDCs around the world as a common phenomenon in the near future.

There is already a visible result of this imminent progress. Most global payments are already digital, but a central bank digital currency will provide risk-free, central bank-secured money denominated in the national unit of account – just the same as cash, but updated to meet the requirements of a digital financial system.

Against the backdrop of the gradually growing adoption of CBDCs, it is highly likely that the European Union will introduce stricter regulatory requirements for the banking sector in relation to cryptocurrencies, as evidenced by the current actions of the EU (collateral requirements). These actions will lead to a decline in their popularity, but not to their disappearance from the FinTech arena.

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