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CRYPTOCURRENCIES AS TOOLS OF GEOPOLITICAL COMPETITION: INCREASING THE ANARCHY OF THE INTERNATIONAL SYSTEM

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ABSTRACT

This research intends to provide a deeper insight into the potential of cryptocurrencies as a tool in geopolitical competition. Based on blockchain technology, cryptocurrencies could reshape the international economy and politics in a decentralised manner, challenging centralised money control, transforming trade relations, and offering alternative pathways for international financial transactions. The author employs the theoretical perspective of structural realism, which acknowledges the existence of anarchy in international relations in the absence of a central global authority, to support the main hypothesis that cryptocurrencies have the potential to exacerbate this anarchy. As these digital assets gain prominence, their impact on global trade and financial systems will likely further enhance the decentralised and anarchical characteristics of the international system. Nation-states will seek to control cryptocurrencies through legislative restrictions, regulation, and, most importantly, by creating their own central bank digital currencies (CBDCs). The analysis showed that such processes are already taking place, but states will ultimately fail to minimise the role of cryptocurrencies in geopolitical competition. Some countries have successfully avoided international pressures and sanctions through cryptocurrencies, and secret money flows open up new challenges such as money laundering, war financing, and terrorist and subversive activities.

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Introduction: What are Cryptocurrencies, and What are They Not?

Cryptocurrencies are digital currencies based on blockchain technology, namely a database that is transparent, decentralised, and consists of interconnected blocks. Blockchain, as a completely new digital system, provides enormous opportunities for the development of decentralised platforms and services, of which cryptocurrencies are only one segment (Trivedi, Mehta, and Sharma 2021). This technology has the potential to greatly impact how supply chains manage information, which in turn could lead to more efficient operations. Some experts claim blockchain technology will revolutionise the accounting and auditing professions by offering new ways to record, process, and store financial transactions and information (Schmitz and Leoni 2019). Digital transactions are performed in such a way without a central regulator, except for the blockchain network itself, which records all data and all transactions ever made. The prefix crypto means that cryptocurrencies use cryptographic techniques to secure and verify secure, transparent, and anonymous transactions. Crypto offers data protection by transforming readable information into unintelligible codes. Unlike dollars, euros, yuan, or other official currencies, cryptocurrencies are not governed by central banks. However, it can be said that self-regulating mechanisms are created by all participants in the system.

Bitcoin, the first and most well-known cryptocurrency, was created in 2009, when the first blockchain technology was founded by a genuine or fictitious person named Satoshi Nakamoto. The basic principle of the functioning of Bitcoin as the first cryptocurrency was developed in a document published by Satoshi Nakamoto in 2008 entitled "Bitcoin: A Peer-to-Peer Electronic Cash System" (Nakamoto 2008). The foundation of Bitcoin resides in a decentralised digital ledger that is public, contains all transactions ever made, and is owned by everyone. Each transaction contains publicly available details such as date, time, total value, parties involved, and their identification codes. As soon as a block is added to the blockchain, it becomes permanently available to all interested participants in the network. In the afore-mentioned concept, Satoshi proposes a "proof-of-work" where each node would act independently, contributing to the overall creation of Bitcoin depending on the desire but firmly accepting the immutable rules of the game. "We proposed a peer-to-peer network using proof-of-work to record a public history of transactions that quickly becomes computationally impractical for an attacker to change if honest nodes control a majority of central processing unit (CPU) power. The network is robust in its unstructured simplicity. Nodes work all at once with little coordination. Nodes can leave and rejoin the network at will, accepting the

proof-of-work chain as proof of what happened while they were gone" (Nakamoto 2008).

The creator of Bitcoin originally saw in it a new electronic payment system based on cryptographic evidence. However, over time, Bitcoin has gone from being a means of payment to something like digital gold. Bitcoin and similar assets are private by nature due to the fact that they are not emitted by nation-states and operate without state confirmation of market transactions. The fundamental economic issue surrounding cryptocurrencies is whether they should be classified as a currency or an asset. Currency is a system of money that is widely used. To qualify as a currency, Bitcoin or any other cryptocurrency must meet three conditions. First, it has to be capable of the transaction. Second, it must serve as a unit of account. Third, it must be capable of holding value (Kiyotaki and Wright 1989). The key qualification for a currency is its ability to be used in transactions. Dozens of websites accept Bitcoin, even though those transactions are tiny compared to the most popular fiat currencies.[2] However, the number of bitcoins used in transactions has gradually increased over the last couple of years, with a tendency towards constant growth. There are no widely agreed-upon volume or value criteria for money to be considered a currency. For example, while the currencies of Cambodia, Laos, and Uganda are less active than cryptocurrencies, they are nonetheless considered currencies—albeit weak ones (Parilla and Abadilla 2022, 13). Although the daily volume of cryptocurrencies remains relatively small, they are extensively used and have seen a significant increase in usage. A second criterion for a currency is that it is used as a unit of account. This is also debatable when it comes to cryptocurrencies. They definitely have characteristics of units of account. They are divisible. A cryptocurrency may be disassembled into an infinite number of components, each of which can be reassembled to form a whole cryptocurrency (Bitcoin or other). One of the challenges with Bitcoin is that its total amount is limited to 21 million. However, fractional ownership of Bitcoin is possible. Therefore, 21 million is not a limiting figure for being a unit of account. Also, a cryptocurrency could be traded for other fiat or cryptocurrencies. Some cryptocurrencies have a total supply of billions or trillions, which is more than enough to fulfil the second condition. The third criterion is the most problematic due to the cryptocurrencies' volatile capacity to value goods and services. Cryptocurrencies are more in demand as an asset than as money. Researchers observed that users store coins to accrue value for future use (Parilla and Abadilla 2022, 13). Bitcoin was created in the first place to provide an alternative currency that would not decline as a result of the government's actions

[2] Fiat currency is a traditional currency issued by a government and regulated by a central bank (e.g., US Dollar, Euro, and Japanese Yen).

(Nakamoto 2008). According to some, Bitcoin's volatility reduces its use as a money store. Many investors assess a currency's credibility based on its stability and ability to serve as a refuge when other financial assets are turbulent. Regardless of all the shortcomings, the potential of cryptocurrencies to play the role of currency cannot be disputed.

Overall, cryptocurrencies represent a significant technological and financial innovation with implications for various sectors, including finance, economics, and computer science. The growing interest in this topic has produced numerous articles in technology, economics, and even social psychology. However, not much has been said about the geopolitical implications of the existence and use of cryptocurrencies in scientific and professional circles. Therefore, it is necessary to analyse cryptocurrencies in light of the destruction of the state-based architecture of the Westphalian system, where the nation-state has an undisputed position. The well-known monetary system is based on state money and includes assets with different levels of convertibility into state money. The crypto market has grown since its foundation with the potential to create stateless money.

Growing Interest in Cryptocurrencies and CBDCs in the World's Financial Core and Emerging Risks

If we look at the digitization trend of the entire modern society, it seems quite logical that paper money has been overcome. Today, there are thousands of cryptocurrencies valued at over 2 trillion US dollars, with the maximum value reached in November 2021, when the crypto market reached slightly less than 3 trillion US dollars (Statista 2024). The Security and Exchange Commission (SEC) has granted permission to a number of the most powerful American companies, including BlackRock, Fidelity, and Grayscale, to list and trade spot Bitcoin exchange-traded funds (ETFs) on US exchanges in 2024 (Coinbase 2024). For example, BlackRock, the world's largest asset manager with 10 trillion total assets, jumped into the crypto world by establishing a Bitcoin exchange-traded fund (Brush 2024). ETFs are comparable to mutual funds in a lot of aspects. They often follow the price of a specific asset, such as gold, or a basket of related assets (such as the S&P 500), which enables investors to easily diversify their holdings by giving them access to a wide range of asset classes. They trade on exchanges, as their name implies, and can be purchased and sold using a conventional brokerage account, just like stocks.

Data from March 2024 indicates that BlackRock's exchange-traded fund now possesses more cryptocurrency than MicroStrategy, which was the leader in accumulating bitcoins (Outlook 2024). As of March 8, almost 198.000 bitcoins were held in BlackRock's ETF, valued at over 13.5 billion (Outlook 2024). This

development follows the approval of nine new funds by the US Securities and Exchange Commission, which indicated an increase in institutional interest in Bitcoin and cryptocurrencies generally. The top companies have begun to experiment with taking cryptocurrencies, which could mark the beginning of the entry of cryptocurrencies into the world's financial mainstream.

Cryptocurrencies are not the same as digital money, but the rise in popularity and importance of cryptocurrencies has led to the governments and central banks of the world's most powerful countries considering the introduction of their own central bank digital currency (CBDC). The pioneering Bahamian Sand Dollar was officially released in October 2020 (Sewall and Luo 2022, 2). The US and rich Western countries are lagging behind China in creating digital currency. China has been working on such a currency for almost a decade and will be the first country to widely adopt a retail digital currency (Aysan and Kayani 2022). Until recently, central banks did not work directly with citizens. They were more like wholesalers that worked only with retail (commercial banks) and commercial banks with citizens. With the introduction of digital currency (CBDC), these things are changing. Central banks are starting to work directly with citizens. That will reduce the influence of commercial banks and take away part of their business related to transactions. It is important to understand that CBDC is not a cryptocurrency at all. It is not decentralised money but centralised state digital money. Its competition is stablecoins, privately issued currencies such as USDT (Tether), USDC (Coinbase), BUSD (Binance), and others. Privately issued stable currencies are also not decentralised, have no nodes or consensus protocols, and are centrally managed, the same as CBDC. Being the competition, CBDC will look to eradicate stablecoins, but the more private investors accumulate stablecoins, the more problems will have states in suppressing their influence.

Through participation in open, decentralised, and technologically autonomous processes, anyone can generate and manage private coins without the need for government intervention. As was already mentioned, the primary uses of cryptocurrencies are not as a means of retail payments as they are for value holding and financial speculation. The value of cryptocurrencies as a savings vehicle is limited by their extreme price volatility, even though they can be more alluring than weak national currencies. However, companies have started experimenting with cryptocurrencies. Many governments are discussing regulations to safeguard consumers because they are concerned about the potentially destabilising effects of cryptocurrencies. The crypto market has developed customised tokens known as stablecoins in an effort to combat volatility. These digital currencies assert that they are supported by reserves of fiat money. Concerns regarding excessive risk, such as platform hazards, liquidity risk, and software security vulnerabilities, are raised by central bank authorities.

Additionally, there is concern that the increasing use of stablecoins could make it more difficult to manage monetary policy at the national level. This risk could increase if large international tech companies start issuing stablecoins. As they work to create rules that strike a balance between stability and creativity in the private cryptocurrency market, governments are grappling with these concerns. The great possibility of non-state-dominated international trade and, consequently, politics represents a serious challenge to the power of states in international relations.

There are also potential risks associated with every private digital currency, such as increased cyber threats, money laundering, and the potential to undermine national currencies and financial stability. The most important risk for nation-states is the problem of controlling the flow of money. There is no central authority that determines the rules of the game. Apart from nation-states, banks have a problem as the main lenders of money and mediators of financial transactions for which they receive substantial commissions. Now, they encounter serious competition in the cheap, decentralised financial system offered by the crypto world. To conclude, digital money embodied in cryptocurrencies has several geopolitical implications. The crypto world could disrupt the international financial system, which has greatly benefited the United States and enhanced its global influence. Building on this, cryptocurrencies could create opportunities for states wishing to challenge the *status quo* and potential vulnerabilities for states that thrive in today's architecture and processes. Additionally, digitization of money (private or CBDC), in general, could enable a government to expand the use of its currency beyond its borders, as real-time settlement eliminates reliance on third parties such as credit card companies, SWIFT, or mobile payment platforms. Finally, the blockchain technology that came with cryptocurrencies enables trade without intermediaries and financial transactions without banks and the control of nation-states. Wider use of digital currencies could undermine the importance of free trade agreements, even those with predominantly geopolitical goals like the Trans-Pacific Partnership (Stojanović 2019). Cryptocurrencies are not directly linked to any monetary policy instruments or fundamentals, and they do not have a physical form like traditional currencies. These facts could turn the existing financial (and economic) system upside down. If crypto and CBDC become widely used, the anarchy of the international financial system will increase to unimaginable limits. The international system is anarchic and characterised by the absence of a central authority governing interactions between states (Waltz 1979). It means that nobody can enforce rules over individual states. In addition, states act on the basis of self-help and operate with the aim of survival (Waltz 1979). Cryptocurrencies, by design, operate independently of governmental and traditional financial institutions, embodying a lack of central authority. This

decentralised nature challenges existing power structures in the international economic system and politics. Apart from the financial system, cryptocurrencies could accelerate the conversion of power in politics (Stojanović 2013). The disruptive feature of cryptocurrencies in reshaping international politics and economics still did not reach its full potential.

Potential and Limitations of Cryptocurrencies in the Context of Geopolitical Competition

The emergence of Bitcoin marked the beginning of the disruption of traditional financial services (Koker 2020). This invention has resulted in the quick rise of the cryptocurrency market, with Bitcoin being the largest digital currency and accounting for a significant share of overall market capitalization. The regulation of cryptocurrencies and virtual asset service providers (VASP) was also a significant milestone. The adoption of VASP guidelines and advice, as well as the deployment of a risk-based approach to virtual assets, is a crucial step towards regulating this new asset class (Koker 2020). Furthermore, the introduction of the Bitcoin futures market has been regarded as an important milestone in the evolution of cryptocurrencies into larger financial products, necessitating a better understanding of their behaviour in relation to traditional financial market assets. Cryptocurrencies, including convertible ones, have the potential to impact monetary policy significantly (Tomić, Todorović, and Čakajac 2020). They possess properties that make them attractive as a means of payment, offering a level of anonymity comparable to cash. Control of current cryptocurrencies by private entities raises concerns about their influence on the traditional monetary system. The autonomy of private entities in determining the money supply could potentially hinder central banks' effectiveness in implementing monetary policy (Tomić, Todorović, and Čakajac 2020, 38). While cryptocurrencies are not currently seen as a direct threat to the traditional monetary system, their widespread adoption could lead to a scenario where central banks might lose some control over monetary policy.

These facts raise many questions about the advantages and disadvantages of cryptocurrencies in general. Cryptocurrencies offer several advantages over traditional fiat currencies. First, cryptocurrencies facilitate financial transactions for a large population in a predominantly decentralised manner, competing with traditional fiat currencies (Katterbauer et al. 2022). People can make transactions without access to the traditional banking system. Second, they provide enhanced security, greater convenience, compatibility, and flexibility in addressing the drawbacks of cash. Third, cryptocurrencies have the potential to facilitate faster and cheaper cross-border transactions. When using cryptocurrencies, transaction costs are incomparably lower than the transaction

costs of using currencies issued by central banks. Transaction speed is also faster. On the other hand, the volatility of cryptocurrencies and huge price fluctuations have been identified as a significant disadvantage that undermines their usefulness as a stable currency. In addition, the lack of regulatory control and the problem of the legality of cryptocurrencies in various countries are also weaknesses. Fiat currencies are backed by central banks and are subject to government regulation and oversight, thus providing some level of stability. A lack of oversight of the crypto market could open space for money laundering, illegal trade, and other suspicious activities. All these activities are increasing the anarchy of the international system.

Cryptocurrencies have become inextricably linked with geopolitical dynamics, creating a complicated scenario in which technological breakthroughs and financial crime risks collide with global conflicts (Tiwari et al. 2024). The crypto market responds to global economic policy uncertainty and geopolitical risks, demonstrating a diverse approach to uncertainties in this arena. The relationship between geopolitical risks and uncertainties on one side and cryptocurrencies on the other is bidirectional. Geopolitical risks significantly impact the crypto market due to high speculation and increased volatility, while cryptocurrencies themselves can serve as geopolitical tools or even trigger crises (Neacşu et al. 2022). Prominent cryptocurrencies like Bitcoin or Ethereum exhibit price surges driven by geopolitical uncertainty, demonstrating the interconnectivity between geopolitical events and crypto market movements. The level of geopolitical risk has been found to have a strong predictive power on the price and volatility of cryptocurrencies, positioning them as potential hedging tools against traditional commodities during geopolitical instability (Yuen and Yuen 2022). Bitcoin, in particular, has been singled out as a cryptocurrency whose price spikes are positively connected with increased geopolitical risk levels, emphasising its unique position in response to geopolitical events. (Long et al. 2022).

To circumvent sanctions, a nation-state can potentially use cryptocurrencies as a means of conducting transactions with other countries. Cryptocurrencies offer a level of anonymity and decentralisation that can allow entities to bypass traditional financial systems and avoid detection by regulatory authorities (Rezaeinejad 2021). This ability to operate outside the traditional banking system can provide a way for countries facing sanctions to access international markets and engage in trade without being subject to the restrictions imposed by sanctions. Moreover, the use of blockchain technology, which underpins cryptocurrencies, can provide a high level of transparency in transactions. Blockchain's distributed digital ledger system offers real-time updates on transactions, making it difficult to conceal financial activities. Additionally, smart contracts, a feature of blockchain technology, can automate payments and

other financial processes, further facilitating transactions while maintaining transparency. Countries like Russia or Iran have already turned to cryptocurrencies in response to economic and financial sanctions, using them to conduct transactions with other nations (Katuk, Wahab, and Kamis 2023). By adopting cryptocurrencies, states can potentially mitigate the impact of sanctions on their economies and maintain their ability to engage in international trade. In conclusion, the adoption of cryptocurrencies by national states presents a potential avenue for evading sanctions by providing a means to conduct transactions that are difficult to trace and offering a level of transparency that can help avoid detection. However, it is essential to consider the broader implications of such actions, including the potential for increased scrutiny and regulatory measures in response to the use of cryptocurrencies for sanction evasion purposes.

Also, to leverage cryptocurrencies for financing covert operations, a nation-state could exploit the anonymity and decentralised nature of cryptocurrencies to fund such activities discreetly. By utilising the pseudonymous nature of transactions and the lack of centralised control, a state could obscure the origins and destinations of funds, making it challenging for authorities to trace the money flow. That could be particularly advantageous for covert operations that require secrecy and confidentiality in their financial transactions. To conclude, while cryptocurrencies present opportunities for covert financing, they also pose risks such as money laundering and terrorist financing. The utilisation of cryptocurrencies for financing covert operations by nation-states offers both opportunities and challenges. By capitalising on the anonymity and decentralised nature of cryptocurrencies, states can potentially finance covert activities discreetly.

Negative Effects and Major Crypto Manipulations That Had a Geopolitical Impact

The history of cryptocurrencies has not been without challenges. Cryptocurrencies have faced various criticisms and negative effects. One of the key issues is their immature market nature, which makes them highly susceptible to psychological and sociological factors, leading to high volatility. Additionally, the uncertainty surrounding cryptocurrency prices and policies has resulted in lower returns, affecting the trust of traders and investors in cryptocurrencies (Haq and Bouri 2022). Moreover, cryptocurrencies are extremely vulnerable to cybercrime, posing a significant risk to investors and users. The lack of correlation between stocks and cryptocurrencies indicates that cryptocurrencies do not serve well as hedging or safe haven options against stock market fluctuations (Jana and Sahu 2023). The wild price fluctuations of

cryptocurrencies make it challenging for investors to maintain stable asset values, further adding to the criticism of their reliability. Episodes of online exchange hackings, thefts of wallets, price manipulation, and the use of cryptocurrencies for illegal activities have raised concerns that have led to legal and security issues.

One of the largest hacks in crypto history was the loss of 460 million US dollars from the Mt. Gox exchange, which led to the exchange's bankruptcy in 2014 (Kaminsky 2023). Mt. Gox was once the largest Bitcoin exchange globally but declared bankruptcy after losing approximately 850,000 bitcoins to hacking and internal fraud. The stolen funds were worth a whopping 62 billion US dollars at Bitcoin's all-time high price, possibly the largest heist in human history. Coincheck, a major Japanese crypto exchange, fell victim to one of the largest thefts in crypto history in 2018 when hackers stole approximately 530 million US dollars (Trend Micro 2018). Another prominent exchange, Bitfinex, experienced a security breach resulting in the theft of 120,000 bitcoins valued at around 72 million US dollars (USDOJ 2023). At the time of the seizure, the recovered funds were valued at approximately 3.6 billion US dollars, but looking at Bitcoin's all-time high price, the stolen funds were worth 8.7 billion US dollars. These incidents highlighted vulnerabilities in exchange security measures and raised concerns about the safety of digital assets, not just cryptocurrencies but also CBDC.

Deliberate manipulation of market prices can lead to a similar result as hacker attacks. It can lead to a huge loss of funds in an extremely short period of time. The Terra project was founded in 2018 with a special focus on stable tokens, whose value is tied to the US dollar. TerraUSD (UST), the stablecoin envisioned by its designers as the new peer-to-peer cash system, lost its peg to the US dollar and collapsed. Before its crash, UST was the fourth-largest stablecoin after Tether (USDT), USD Coin (USDC), and Binance USD (BUSD), with a market capitalisation of 18 billion US dollars (Briola et al. 2022, 2). The Terra protocol used a two-coin scheme not completely supported by standard collateral. On the one hand, Terra was an algorithmic stablecoin whose value was tied to several fiat currencies, resulting in fiat-based stablecoins such as TerraUSD, TerraEUR, and TerraKRW. On the other hand, the LUNA token (LUNA) was utilised as a counterweight to eliminate (or at least lessen) volatility from UST. To be more specific, the LUNA-UST protocol was built on two major concepts. First, the protocol stabilised UST pricing by ensuring that supply and demand were in balance through arbitrage, which involved decreasing (or extending) the UST pool while using the LUNA pool as a counterweight. Second, arbitrageurs might trade $1 worth of LUNA for 1 UST using the Terra protocol's algorithmic market module, regardless of LUNA and UST pricing. The vulnerability of this concept lies in the following fact: When the value of UST

coins falls in the market, that would accelerate the LUNA price decrease below one dollar, and users can burn one UST and get a LUNA token worth $1. Thus, they automatically perform the so-called arbitrage trade and earn the difference, in this case, $0.1. Likewise, if the value of UST coins rises above one dollar, users can burn the LUNA token and earn the difference again. If UST is burned, LUNA is minted and sold, prompting additional UST holders to sell their UST. This vicious loop is referred to as the "bank run" or "death spiral". This "death spiral" effectively occurred for LUNA-UST in May 2022. Bank runs are a phenomenon where financial institutions emit money or other fixed-valued liabilities backed by assets with uncertain value (Saengchote 2021, 1). The collapse of the Terra project had a ripple effect on other cryptocurrencies and DeFi platforms that were connected to or dependent on it. According to some estimates, over 60 billion US dollars were wiped out of the crypto space due to this event (Martens 2023).

In November 2022, the third-largest crypto exchange by volume, FTX Trading, collapsed due to a liquidity crisis. FTX Trading had assets worth a maximum of 50 billion US dollars, which is remarkable compared to other classic bankruptcies, such as Lehman Brothers, worth 106 billion US dollars, making this crypto collapse one of the greatest financial events in American history (Bouri, Kamal, and Kinateder 2023, 2). The failure of a major cryptocurrency exchange impacts not just its digital token but also the coins actively invested on its platform. Significant withdrawals from these staked cryptocurrencies, along with other coins held on the exchange, had negative price movements across the broader cryptocurrency market. Unlike traditional banks and insurance companies, crypto firms lack the systemic importance that would prompt government bailouts in the event of failure. Consequently, such failures can exacerbate investor panic and trigger spillover effects on other cryptocurrencies. For instance, the collapse of FTX resulted in contagion effects rippling throughout the entire crypto landscape, instilling fear among the majority of participants in blockchain technology (Conlon, Corbet, and Hu 2023).

The mentioned examples of hacker attacks, manipulations, and crashes of large crypto firms and cryptocurrencies are just some of the huge numbers this market suffers. The great space for manipulations, the instability of prices (even of stable tokens), and the inability of state actors to help as they did during the World Economic Crisis make the crypto universe susceptible to fraud and huge shocks, side by side with the historically largest collapses of traditional financial institutions and instruments. The mentioned facts are significant when analysing geopolitical tensions and the enormous ability to influence financial flows through organised and systematic "attacks" on crypto institutions. Regardless of the fact that states do not have the capacity to control the developments in the crypto market, they can very well influence major shocks, which can

consequently damage individuals, companies, and states as investors. Given that cryptocurrencies, despite the large volume of trade and constant growth in overall importance, are still not mainstream in the financial world, it is clear that the anarchy they offer and the space for geopolitical manoeuvres will increase as their share in the overall financial exchange grows.

States Strike Back? Effects of Government Interference in the Crypto Market

The introduction of national currencies based on blockchain technology (CBDC) could offer a way for states to maintain control over financial flows and prevent the utilisation of private cryptocurrencies in criminal activities (Tomić, Todorović, and Čakajac 2020). Through the issuance of their own digital currencies, states could potentially monitor and regulate transactions more effectively, ensuring that funds are directed towards covert operations without detection. It was already mentioned that cryptocurrencies could be a powerful economic and political tool in private hands. That is why states are not inert during the transformation of the financial market towards a more decentralised system and try to sail into those waters. Advocating for the outright prohibition and proclaiming the complete illegality of all cryptocurrencies represents an inadequate approach for nation-states. It is imperative for governments to assess prevailing market trends and consumer inclinations. Rather than engaging in a direct confrontation with cryptocurrencies, governments could opt to introduce their own viable alternatives, the central bank digital currency (CBDC). The development of CBDC may be driven by diverse motivations. One such rationale is the expeditious execution of financial transactions coupled with the near-instantaneous availability of funds. Conventional payment infrastructures are characterised by their costly and sluggish nature, a reality particularly pronounced within the realm of international commerce. Leveraging blockchain-based connectivity possesses the potential to streamline business integration processes by alleviating the burdens associated with protracted procedures and exorbitant currency conversion expenses.

Some countries decide to create a national cryptocurrency to overcome economic sanctions and international blockades or to simply follow the latest digital technology, which is slowly taking over the primary position in the digital world. The main question is whether national cryptocurrencies will completely replace traditional ones in the future or will be just an additional means of payment. The first option is highly unlikely to happen in the future. However, we must not lose sight of the fact that countries such as Sweden have already announced the abandonment of cash and a complete transition to electronic money, which, in terms of technology, may or may not be based on blockchain

technology (Sveriges Riksbank 2023). Although China banned bitcoin exchange activities in 2017 and prohibited crypto transactions in 2021 due to a lack of monitoring, this country created the digital yuan (CBDC) with the potential to make faster, cheaper, and more secure transactions than conventional ones (Elston 2023). Apart from China, other countries such as Russia, Japan, Estonia, Tunisia, Ecuador, Senegal, and others have introduced their own versions of national cryptocurrencies. Even a small country like the Marshall Islands has launched the project of its own digital currency to stimulate its economy, which will be used in conjunction with the US dollar as a mode of payment (PR Newswire 2020). In 2015, Tunisia announced it would be the first country with a national digital currency. In 2019, Tunisia partnered with Russian firm Universa to introduce the electronic dinar. When it was launched, the head of the Central Bank of Tunisia made a symbolic transfer of one dinar to a representative of the International Monetary Fund (IMF) (CryptoDnes 2019). In 2021, the Central Bank of Tunisia announced successful cooperation with the Central Bank of France in the fifth experiment on CBDC (Unlock Media 2021).

It has already been said that governments facing tough economic sanctions are turning to cryptocurrencies as a means of mitigating these costs. One of these nations is Iran, which is said to be particularly interested in developing digital currency, a significant reversal from its previous position of prohibiting banks from dealing with Bitcoin (IRNA 2018). Iran has already used cryptocurrencies to "smooth trade" with its partners in the event of US sanctions. The Iranian government has utilised cryptocurrencies to access international markets despite facing economic sanctions (Rezaeinejad 2021). By leveraging cryptocurrencies, Iranian entities can engage in cross-border transactions without being hindered by the limitations imposed by sanctions, thereby maintaining economic activities and connections with the global market. Some governments have used cryptocurrency to dodge sanctions imposed by others in the global community, since such transactions may happen without scrutiny or tracking. Perhaps Venezuela is a forerunner in developing a government-backed cryptocurrency to achieve this goal. Venezuela established "the Petro" cryptocurrency in December 2017 with the goal of supplementing the Bolivar currency and overcoming US sanctions (Al Jazeera 2018). It should have acted as a means of protecting value when the national currency, the Bolivar, had lost its role owing to hyperinflation caused by external economic sanctions and pressures. Petro's value was meant to be supported by Venezuela's oil reserves.

Another example of government interference in the crypto universe is North Korea. Although it has not yet launched its own cryptocurrency, the North Korean leadership has been accused of looting cryptocurrency exchanges to steal large quantities of money to alleviate the impact of the sanctions it is

facing. The UN Security Council panel is looking into 17 cryptocurrency heists that occurred between 2017 and 2023. According to the South Korean Yonhap news agency, North Korea-linked cryptocurrency intrusions reached billions of US dollars (Crawley 2024). There were 58 alleged cyber attacks against cryptocurrency-linked companies between 2017 and 2023. According to this report, cyber assaults account for almost 50% of North Korea's foreign currency income, which is used to support its nuclear development. In December, cybersecurity firm Recorded Future estimated that North Korea-linked hacking outfit Lazarus Group stole 3 billion US dollars in cryptocurrencies over the past six years (Crawley 2024). The adoption of cryptocurrencies by nation-states like El Salvador and the Central African Republic as legal tender further exemplifies how countries embrace digital currencies to navigate international pressures (Ogunode et al. 2022). By formalising cryptocurrencies within their economies, these nations are establishing alternative financial systems less susceptible to external sanctions and restrictions.

Nation-states, as the most powerful players in international relations, have certain levers of influence in containing the power of cryptocurrencies. Blockchain technology does not leave much space for state control, but nation-states guided by the slogan "If you cannot beat them, join them" may reach out to create their own national cryptocurrencies. Creating state-backed cryptocurrencies has been suggested as a preventive measure to deter fraudsters and money launderers from exploiting the existing system. These are processes that we are already looking at. Also, nation-states can establish strict laws against cryptocurrencies, as seen in countries like India and China, with the aim of risk mitigation (such as money laundering, financing criminal activities, etc.). Governments can enhance formal regulations on crypto investments and transactions to address the insufficient oversight observed in many countries. However, international cooperation is crucial in developing regulations governing the crypto market because of the transnational and non-territorial nature of cryptocurrencies. This also applies to attempts to suppress and detect criminal activities related to blockchain technology and the financial risks associated with cryptocurrency market fluctuations. Cryptocurrencies have gained importance in geopolitical rivalries because of their potential influence on international trade and economic stability. The war in Ukraine showed the vulnerability of international trade if states relied exclusively on traditional transaction models. The effectiveness of cryptocurrencies like Ripple has already been demonstrated during wars such as the one between Russia and Ukraine (Mnif, Mouakhar, and Jarboui 2022). Their capacity to respond quickly to emergency transaction demands in international circumstances via peer-to-peer networks made them useful instruments in geopolitical manoeuvres.

Conclusion

The rapid pace of technological development has led to the creation of a blockchain system, which became the basis for cryptocurrencies. The potential of cryptocurrencies posed challenges to traditional state-dominated international politics and increased anarchy in international relations. Cryptocurrencies have become a significant factor in geopolitical rivalries, sparking debates on their nature and effects. From a technological point of view, blockchain poses numerous problems for the intentions of nation-states to control financial flows, and the decentralised nature of cryptocurrencies makes it impossible for states to control transactions and implement monetary policy in the crypto money market. Bitcoin and other cryptocurrencies can bypass capital controls and money flows, which increases the covert potential for money laundering, financing wars, and terrorist and criminal activities. At the same time, the decentralised nature of the crypto market increases the chances of cyberattacks and multimillion-dollar robberies organised by state institutions or private organisations.

During the geopolitical "games", nation-states have increasingly turned to cryptocurrencies as a means to circumvent international pressures and sanctions. To counter these restrictions, countries like Russia, Iran, Venezuela, and North Korea have resorted to using cryptocurrencies to conduct transactions with other nations and bypass traditional financial systems. It means that sanctioned countries can continue international trade unhindered despite the imposed sanctions. The formal adoption of national digital currencies by certain nations also signifies a shift towards alternative financial systems that offer more autonomy and resilience in the face of international sanctions. The future will likely bring a battle for supremacy between decentralised cryptocurrencies and centralised ones controlled by states (CBDC). One thing is certain: besides acting as a hedge or safe haven against global uncertainty and a state-dominated world, cryptocurrencies can also cause geopolitical earthquakes and be a powerful tool in the hands of states or private organisations. Because of all the above, blockchain technology and cryptocurrencies will draw more attention from politicians, economists, scholars, and ordinary citizens to learn more about their effects.

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KRIPTOVALUTE KAO ALAT GEOPOLITIČKE KONKURENCIJE: POVEĆANJE ANARHIJE MEĐUNARODNOG SISTEMA

Apstrakt: Ovo istraživanje ima nameru da pruži dublji uvid u potencijal kripto valuta kao alata za geopolitičko nadmetanje. Zasnovane na blokčejn tehnologiji, kripto valute bi mogle preoblikovati međunarodnu ekonomiju i politiku na decentralizovan način, stvarajući izazove centralizovanoj kontroli novca, transformišući trgovinske odnose i nudeći alternativne puteve za međunarodne finansijske transakcije. Koristeći teorijsku perspektivu strukturalnog realizma o postojanju anarhije u međunarodnim odnosima bez centralnog globalnog autoriteta, autor pokušava da dokaže glavnu hipotezu vezanu za potencijal kripto valuta da tu anarhiju dodatno uvećaju. Kako ova digitalna sredstva dobijaju na značaju, njihov uticaj na globalnu trgovinu i finansijske sisteme će verovatno dodatno pojačati decentralizovane i anarhične karakteristike međunarodnog sistema. Nacionalne države će nastojati da kontrolišu kripto valute kroz zakonodavna ograničenja, regulaciju, i što je najvažnije, kroz stvaranje sopstvenih digitalnih valuta centralnih banaka (CBDC). Analiza je pokazala da se takvi procesi već dešavaju, ali države na kraju neće uspeti u minimizaciji uloge kripto valuta u geopolitičkom nadmetanju. Neke zemlje su uspešno izbegle međunarodne pritiske i sankcije putem kripto valuta, a tajni tokovi novca otvaraju nove izazove kao što su pranje novca, finansiranje ratova, terorističke i subverzivne aktivnosti kroz kripto valute.

Ključne reči: Kripto valute; blokčejn; Bitkoin; tehnologija; anarhija; međunarodni sistem; geopolitika; monetarna politika; CBDC.