Jean Monnet Module for European Monetary Law

Srđan Golubović
Marko Dimitrijević
Editors

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Editors' Note

Three years of successful project implementation of the Jean Monnet module for European monetary law at the Faculty of Law, the University of Niš, which was approved by the Executive Agency of the European Commission for Education, Audiovisual Activity and Culture (EACEA) at the Erasmus+ Program Calls for Proposal 2020 - Jean Monnet Activities, were ceremoniously marked by organizing the Jean Monnet International Scientific Conference titled "The Influence of European Integration on the Development of Monetary Law" at the Faculty of Law, the University of Niš, on 30-31 May 2023.

If we carefully examine the events in international monetary relations in the last decade, we can notice a new wave of European monetary law, which is more intense, richer, and more complex than all the other events on the previous global monetary scene. New tendencies are not only embodied in prioritizing soft legislation in times of crises over primary monetary solutions, new jurisdictions of international judicial instances for resolving monetary and fiscal disputes, new central bank powers, and the evolution of the concept of monetary sovereignty but also in generating more "human" approaches in implementing monetary law. In the circumstances of ongoing technological revolutions, environmental crises, and pandemic shocks, EU monetary legislation requires some modification of the central bank mandate and monetary-fiscal policy coordination mechanism. This professional belief was the starting point for addressing these monetary law issues by the Conference organization and program committee of distinguished scholars.

In this context, the papers presented at the JM Conference covered a wide range of monetary law topics and various aspects of contemporary monetary legislation dedicated to the challenges of European monetary and economic integration: a new model of economic governance in a time of crisis, implementation of the Banking and Fiscal Union concept in the EMU, monetary conduct and human rights protection, green central banking, new competencies of central banks, monetary sovereignty and sovereign debt crises, central bank digital currency issues, changes in the central bank management and legislation, monetary disputes and the role of courts, fiscal rules and
monetary-fiscal policy mix, and challenges of monetary and fiscal Integration of the South East European Countries and Western Balkans.

The Conference brought together respected and credible scholars from renowned domestic and foreign higher education institutions, as well as experts from legal practice and public administration. A total of 27 conference participants presented their papers, emphasizing the importance of a thorough, credible, dedicated and comprehensive study of the basic institutes, principles, and fields of application of monetary law of the European Union. It is a conditio sine qua non for successfully designing a long-term and sustainable economic policy and monetary stability as a pure public good that can only be guaranteed by adopting and implementing monetary legislation that is both normatively and economically efficient. Such legislation is aimed at protecting the rights of citizens to have a “healthy and stable currency” and a regulated monetary system. A joint conclusion refers to the idea that optimal legal regulation of monetary relations is a multidimensional practical challenge for the domestic legislator. In the conditions of globalized economic and financial flows, technical and technological progress, sustainable development, and accession to the EU, monetary relations are immensely gaining new characteristics in terms of their complexity, consistency, parification, expediency and moral, social and political justifications.

The eminent conference participants from diverse scientific fields presented their valuable research and papers closely related to the matter of contemporary monetary legislation. It clearly illustrates the multidisciplinary character of the contemporary monetary law science and a high degree of synthetic-dialectical connection with other legal disciplines. The Conference was attended by: the representatives of the European Central Bank (EU); J.W. Goethe University - Frankfurt (Germany); the National Kapodistrian University of Athens Law School (Greece); the Faculty of Law, University of Zagreb (Croatia); the Faculty of Economics and Tourism “Juraj Dobrila”, University of Pula (Croatia); the Faculty of Law “Iustinianus Primus”, University “St. Cyril and Methodius” in Skopje (North Macedonia); the Faculty of Law, University “Goce Delčev” in Štip (North Macedonia); the Faculty of Economics and Business Administration, University “St. Kliment of Ohrid” in Sofia (Bulgaria); the Faculty of Law, University of Belgrade (Serbia); the Faculty of Law, University of Kragujevac (Serbia); the Faculty of Economics, University of Niš (Serbia); the Faculty of Law, University of Niš (Serbia); the Croatian National Bank; and a number of prominent legal practitioners (lawyers, consultants, public enforcement agents, and public administration officers). Their participation contributed to creating a productive fruitful sci-
entific atmosphere for coherent analysis of both theory and practice, critical observation and reasoned discussion on both traditional and contemporary trends in the development of public and international monetary legal management in the contemporary society.

The Conference was officially opened by a welcome speech given by the Dean of the Faculty of the Law, University of Niš. The plenary addresses were delivered by keynote speakers: Prof. dr Chiara Zililoli (Director General of the Legal Services of the European Central Bank, Professor at the J.W. Goethe University-Frankfurt, and Chair of the Committee on International Monetary Law of the International Law Association) and Prof. dr Christos Gortsos (Full Professor, National Kapodistrian University of Athens Law School and Visiting Scholar at the University of Zurich). Prof. dr Chiara Zililoli delivered a presentation on “The High Integration and the Double Nature of Central Banks within the Eurosystem in the Jurisprudence of the ECJ”. Prof. dr Christos Gortsos had a presentation on “The Multiple Tasks of the ECB and their Exercise within the Various EU Systems and Mechanisms”. The presence of the most prominent experts in the area of European and International Monetary Law indicates the indisputable importance of this branch of law, in academic, scientific and practical terms. Given the fact that contemporary monetary law is an independent and positive branch of law, which is in many many social and economic circumstances manifested as a law of necessity (Fr. loi de la police; the law for the maintenance of public order), its meaning and implementation can significantly differ in periods of economic turmoil and earthquakes as opposed to peace-time circumstances.

The Conference activities were organized out in two thematic sessions. The topics in the first session focused on a number of important issues: the heterogeneous mandate of central banks in the field of environmental protection and the need to preserve natural resources; the experiences of the new member states of the Eurozone, including an argumentative review of current opportunities and challenges on the way to full monetary integration; an overview of institutional and other forms of independence of the central bank as the supreme monetary institution in maintaining monetary and financial stability; the need for legal regulation of the central bank digital currencies, the revolution in the development of these forms of money and the legal definition of digital money, with specific reference to the influence of the Digital Euro Project on the development of the digital money; the features of tokenization as a legal phenomenon, its characteristics and determinants in practice; and the real effects of the coordination of monetary and fiscal
policy measures and instruments on economic development in post-pandemic circumstances and taxation of digital assets.

In the second thematic session, the panelists focused on the importance of establishing a sustainable and permanent macroeconomic dialogue between the European Parliament and the European Central Bank, in terms of discussing both procedural and substantive issues, the challenges of harmonizing and adapting domestic fiscal systems in line with the recommendations and values of the European fiscal and tax system, the challenges of full liberalization of capital movement in the circumstances of accession to European integration, and the multidisciplinary approach of general victimology in line with the concept of green central banking. The Conference participants also focused on determining the domain of legal protection of the virtual property market in the domestic legal environment, the influence of public policies, the scope of regulatory competencies on the efficiency of public management, as well as the issue of gender in the domain of money, prospectus liabilities in the EU, bank credit cost in legal practice, and specific crypto assets as the subject of contractual obligations according to the current trends in European law.

In their reports, the Conference participants confirmed the need to introduce Monetary Law at all levels of legal education. The basic aim of studying Monetary Law as an independent course is the advancement of scientific knowledge, academic and practical skills by taking into consideration of new tendencies in the development of monetary legislation in the contemporary economic, legal, political and business environment, which will promote students' understanding of the nature and importance of optimal public monetary management in light of appropriate legal regulations and economic dimensions in the contemporary market economy system. Upon the completion of the course, students will be able to apply relevant methods and procedures for assessing the impact of various factors that determine the development and structure of monetary sovereignty in globalized financial relations, and understand the monetary jurisdiction of national and supranational courts, legal rules in resolving monetary disputes as sui generis types of administrative disputes, and the implications of monetary and legal relations on human rights protection. They will also acquire specific skills needed for a future career in various monetary institutions, particularly bearing in mind that this field of law is not sufficiently represented in contemporary legal theory and empirical jurisprudence.

In a nutshell, the Conference participants concluded that the emergence of new legal disciplines that have modern nomotechnics and a multi-juris-
dictional approach in regulating complex and challenging socio-economic relations (neither opposing nor strictly insisting on orthodox and often redundant demarcation lines between "hard" and "soft" rules, procedural and substantive sources, but sublimits and transforms them into a creative and constructive synergy) is, if we may say, "an intellectually exciting and immensely inspiring legal spectacle of immeasurable theoretical and practical potential". For this reason, we believe that monetary law and the process of its qualitative disintegration, as a par excellence example of a new branch of law, confirms the thesis about the evolution of the legislator’s awareness of the emerging issues. Thus, the monetary legislator places legal categories and institutes in a contemporary value-based discourse that is extremely expedient and keeps pace with the changes regarding the normative regulation of monetary flows and the economic system. A new and qualitatively different approach to the regulation of the legal-economic factual situation underlying the monetary legal norm avoids the pitfalls of unitarian attitudes and the problem of legal gaps arising thereof; in effect, we must take into account that the economic sphere of social life (including the monetary order) is more prone to changes.

The Conference participants’ research, elaborate reports and the application of diverse and sophisticated methodological instruments have fully confirmed the thesis that monetary legal thought in the EU area is topical and highly valued. In addition to the general discipline of substantive and procedural EU Monetary Law, there are new subject-specific disciplines dealing with EMU Law and Law of the European Central Bank (ECB), which have been established as special legal disciplines in process of disintegration of EU monetary law.

Conference Managers and Editors-in-Chief

Prof. Srdjan Golubović, LL.D.
Prof. Marko Dimitrijević, LL.D.

Niš, October 2023
CBDCS - A (R)EVOLUTION OF MONEY

Abstract: The monetary landscape is changing at a pace that has never been seen before. The incumbent players are faced with challenges coming from international events that are changing the post-war monetary order while technological breakthroughs alter the traditional understanding of money and payments. The process of digitalization of money and the emergence of different forms of private digital money that are decentralized and out of the official monetary system managed or supervised by a central bank is the most serious challenge for the future of the current monetary system. The central banks are well aware of this challenge and are trying to be proactive and to adapt to the new circumstances. They try to use all the benefits from the new technology while providing a state-backed money that has the state authority behind them. Thus, the central bank digital currencies (CBDCs), as a new form of central banks money, are vastly researched by almost all leading central banks. The CBDCs should ensure the existence of a risk-free central bank money in a highly digitalised and cashless economy. The debate on a possible launch of the CBDCs should also include a debate on the legal aspects of introducing this new form of money. This debate is primarily focused on changes in the monetary law, monetary sovereignty, and the effects on the financial and banking system.

Keywords: central bank digital currencies (CBDCs), digitalisation, monetary sovereignty, legal tender, financial system, cryptocurrencies.
1. Introduction

In his book "The Legal Concept of Money," Simon Gleeson wrote: \textit{one of the greatest gifts that the world can give to any analyst is a genuinely new factual context to which to apply an existing set of ideas} (Gleeson, 2018: vi). In this respect, the area of the financial law or more specifically monetary law is facing new events that are fundamentally changing the traditional relations that have existed for many decades. These events are both a great challenge and an opportunity for researchers and decision makers in the field. Changes are triggered by different events and processes. Firstly, in the last fifteen years, we bear witness of an unconventional monetary policy that first started as a result of the global financial crisis and culminated during the pandemic where the central banks were pushed to the limits. With different programmes and actions, they were one of the main actors in preserving the stability not only of the economy but of the entire society (Dimitrijevic, 2023: 256-263). This unconventional monetary policy, which included negative interest rates and an aggressive monetary policy through the \textit{quantitative easing} and other liquidity instruments, fuelled the inflation as a phenomenon which we almost forgot about at least in the last twenty years. Secondly, as a result of the geopolitical turbulences and the conflict at the European soil, we saw an unparalleled level of sanctions that included measures targeting the foreign exchange reserves and the international payment infrastructure. These actions will have unprecedented effects on the current international monetary system built after the Second World War. Some academics and experts (Pozsar, 2022) are already talking about Bretton Woods III that will be quite different from the system that we have today. Thirdly, perhaps the most important challenge in the monetary field comes from the technological breakthroughs and the process of digitalisation of money.

The technological breakthroughs in the payment services and the emergence of a new concept of digital money that is decentralized and outside the regular monetary system is both a challenge and an opportunity for the academia and regulators. The main idea in the concept of the cryptocurrencies is to create a monetary system that will be independent and outside the state powers. The core element is the \textit{blockchain} technology that offers a possibility for bridging the double-spending problem. The decentralised design of the cryptocurrencies makes the third or trusted party in the system of payments and settlements obsolete. In other words, the general public is offered different forms of private digital money that do not need a central bank or any other authority and are outside the impact of the state powers.

The innovation in the field of money and payments has brought many challenges for the monetary authorities. Whereas there a rise in the private digital
money, cash payments are in decline, which narrows the use of the central bank’s money in everyday payments. The main challenge for the monetary authorities is to provide a risk-free central bank money in a highly digitalised and cashless economy. A possible solution might be the launch of a new form of central bank money or central bank digital currencies (hereinafter: CBDCs), which opens a series of questions debated on different levels. This paper, presented at the Jean Monnet International Scientific Conference “The Influence of European Integration on the Development of Monetary Law” organised by the Faculty of Law, University of Niš (Serbia), is a modest contribution to this debate. After these introductory remarks, the author analyzes the design and the key features of the CBDCs (in part 2) and then discusses the various legal challenges deriving from the introduction of digital central banks money (in part 3). The considerations are followed by conclusion.

2. CBDCs: a new form of money

Central bank digital currency (CBDC) may be defined as a digital payment instrument, denominated in the national unit of account, that is a direct liability of the central bank (BIS, 2020: 3). It should be like digital cash that provides direct relationship between the households and businesses with the central bank. In other words, the CBDC as a new type of central bank money offers a unique possibility for preserving the coexistence of sovereign and private money in a digital world (Panetta, 2022). There is an ongoing debate about the need for this new form of money which opened a new round of competition of private and public money on both international and domestic arena (Prasad, 2022). Is there a real necessity for CBDCs, or are they a reaction to the blockchain and technological achievements and ongoing success of the cryptocurrencies as private digital money? Which is the most proper design that will bring more benefits while mitigating the risks coming from the introduction of this new form of digital money?

2.1. The need for CBDCs

Nowadays, there are two types of money in circulation. The first type is public money that is issued by the central bank (i.e. banknotes and coins), the second type are electronic central bank deposits held by banks and other financial market participants. The latter are private or book money or deposits that are held on the accounts of commercial banks. The central banks issue the former while providing infrastructure to support the latter. However, in times of declining use of cash as a medium for exchange and the increased role of the private money that offers fast and decentralized payments out of the control of the state, the public money is losing its importance. The solution
comes in the form of central bank digital money. The central banks have been offering digital money to the banks and other market participants but only for wholesale purposes. The change with the CBDCs is that they should be available to the broader public. This characteristic introduces a great novelty in the monetary landscape that poses numerous challenges for the state authorities.

The primary motivation for research and possible launch of the CBDCs is the use of this new form of central bank money as a means of payment (BIS, 2020: 5). In time when the use of cash is in decline while the transactions of households and businesses are increasingly effected through electronic payments, the need for a risk-free central bank money in a digital form is accelerated.

More than a half of the world’s central banks are in a process of exploring or developing digital currencies. Central banks are conducting research into the CBDCs but their issuance is unlikely on short or medium term (Stanely, 2022; Kosse, Mattei, 2022). There are some documents that provide direction for research of the leading central banks. The European Central Bank (ECB) was the first major central bank to launch a debate on the design and key features of the digital euro. The ECB Report on a digital euro (ECB, 2020) summarizes the main reasons for the research and the main objectives of this new form of public money in the Eurozone. The US Federal Reserve System (FED) has also presented a document about the future of the U.S. dollar in times of digital transformation and rapid changes in the monetary sphere (Board of Governors of the Federal Reserve System, 2022). The authorities in the UK join the debate by presenting a Consultation paper for the possible launch of digital pound (Bank of England and HM Treasury, 2023). However, the launch of the central bank digital currency is a politically charged question which should be addressed cautiously, including debates and consultation with all parties concerned and covering all aspects of possible introduction of this new form of central bank money. In other words, the entire process should be transparent, smooth and efficient, taking into account the interests of the entire society. There are many proposals on how to do it but they have different legal implications.

2.2. The choice of the design

In a joint report (BIS, 2020: 5-10), acting within the framework of collaboration with the Bank of International Settlement (BIS), the major central banks

2 The group of central banks included: the Bank of Canada, the European Central Bank, the Bank of Japan, Sveriges Riksbank/the Central Bank of Sweden, the Swiss National Bank, the Bank of England, the Board of Governors of the Federal Reserve System (US), and the Bank for International Settlements (BIS).
clearly stated that the primary reason for creating the CBDCs should be its use as an alternative means of payment (rather than as a store of value) while all other reasons (such as monetary policy) are secondary. The report also identifies three core principles that should underpin the research and possible design of a CBDC, and lay foundations for the prospective work on the CBDCs. Firstly, the principle do not harm provides that CBDCs should not hamper the delivery of the central banks’ objectives, such as monetary and financial stability. Secondly, the CBDC ecosystem will ensure the coexistence with private payment systems (commercial or bank money) and cash as another form of central bank money, which is an essential element for future smooth operation of the CBDCs. Thirdly, the launch of the central bank digital money should encourage innovation and improve efficiency in the payment system (BIS,2020:1).

The proper choice of the design of a CBDC is essential for its success. There are multiple proposals on how to design this new form of central bank money but each difference in design brings different legal challenges. One of the most important questions in the design of the central banks digital money is who can have access (i.e. access criteria for permitted users). A wholesale CBDC is something very similar to the digital money that are available to the banks and other market participants and will affect profoundly the current system of payments. However, the retail CBDC that will be used by households and companies will make profound changes in the monetary system and will require changes in the legal framework. Depending on the identification requirements for access to CBDCs, they may be account-based or token-based. The account-based CBDC requires the identification of the account holder at the central bank for payment authentication, which poses a great concerns for data privacy and security. The token-based CBDC is anonymous and, like the payments in cash today, does not require user’s identification. Another significant difference in the design of the CBDCs is based on the choice of the transfer mechanism or the ledger structure used. The system might be decentralized without a central ledger, as is the case with the cash and various cryptocurrencies providing anonymity, or a centralized system based on deposit accounts within the central banks which requires a trusted party or an institution that regulates and manages transactions. The second model is more convenient for the authorities but it might have negative spillovers in the financial system in terms of its disintermediation.

The choice of design of the CBDCs will affect the demand for this new form of money. Depending on their preferences, individual users will evaluate the utility and convenience of this form of central bank money in comparison to the existing alternatives such as cash, bank deposits, cryptocurrencies or other forms of private money.
3. Legal challenges deriving from the introduction of CBDCs

The introduction of the CBDCs will have various implication for the entire monetary system and monetary policy. It will also have impact on the financial system and the payment industry. The introduction of this new form of money opens very deep theoretical questions about the relationship between money, the state and the law. The legal foundations for introduction of the CBDCs under the central bank law and its treatment under monetary law are the central issues that should be considered before the launch of the CBDCs alongside with tax law, contract law, insolvency law, privacy and data protection law, etc. (Bossu, Itatani, Margulis, Rossi, Weenink, Yoshinaga, 2020). In the next part of the paper, the author will present three legal questions of paramount importance for the future success of the CBDCs: the prospective changes in monetary law, the issue of monetary sovereignty, and the issue of financial stability.

3.1. Monetary law and the CBDCs

The issue of a new form of central bank money will require adjustments in the legal framework regulating the central bank and the currency. Legal aspects include the legal basis for introducing this new form of central bank money, the question whether they should have the same legal tender status as banknotes and coins, and additional questions concerning privacy, anti-money laundering rules, etc. The level of changes in laws and regulations will depend on the choice of the design of the CBDCs but some general necessities may be underlined in this regard. Firstly, the legal framework should unambiguously provide that the central bank is mandated to issue a CBDC. The mandate of the central bank should include the issuance and oversight of the digital central bank money, which will strengthen the capacity of the monetary authorities to fulfill monetary policy objectives. Here, the question is whether the functions of the central bank include the issuance of the currency in broader terms, which may be used as a legal basis for issuing the digital currency, or whether the mandate for issuing currency is limited to physical currency (banknotes and coins), which limits the possibility for using the existing legal framework and opens the door for changes in the legislation related to the central bank. Another question related to the central bank law is the possibility of allowing the general public to access this payment system. This question is of vital importance in the case of account-based CBDCs. Secondly, the demand for a new form of central bank money and its success will largely depend on the fact whether it has a status of legal tender within the country. The legal tender status implies that a CBDC would have to be accepted as a means of payment at any location and under any condition.
Furthermore, another area for discussion is the relationship between the cash banknotes and coins and the CBDC.

3.2. Monetary sovereignty and the CBDCs

The monetary sovereignty is one of the most important attributes of the state sovereignty. For centuries, sovereigns were entitled to issue money, assuring the quantity and purity of the issued tokens. In modern times, the central banks are responsible for issuing money and its value by conducting monetary policy. However, in times of globalization and different regional processes, the economic boundaries between countries are vanishing while the financial markets are becoming more and more integrated. The goods, services and capital are freely moving across meridians, which makes the exercise of the monetary sovereignty less effective and limited. In its contemporary concept, the monetary sovereignty is limited by both legal and economic constraints. The legal ones are the result of obligations deriving from international agreements or membership in different international or regional organizations. The economic ones are the result of the growing importance of the global financial markets which makes certain state competences in the monetary field difficult to exercise (Zimmerman 2013: 16-17).

The question of monetary sovereignty is essential when analyzing the CBDCs. There are two different aspects concerning the effects on the monetary sovereignty that are linked to the introduction of central bank digital money, and they are in some way contradictory. On one hand, the introduction of the CBDCs will ensure that the central banks or the state will remain an important player in the realm of money in the environment of highly digitalized economy where the use of cash is declining while the use of private digital money is rising. Thus, the digital fiat money issued by the central bank is a natural countermeasure to the digitalization of money and payments that will preserve the monetary independence (Brunnermeier, James, Landau, 2021: 25-26). On the other hand, the lack of capacity to introduce a domestic digital currency will jeopardize the monetary sovereignty. The introduction of the CBDCs could lead to currency substitution and digital dollarization of small economies. That might also be the case with the countries from the Western Balkan region, which are relatively small and without any capacities to conduct research and launch their CBDCs. If non-residents are allowed to have accounts and to use CBDCs for domestic and international payments, as it is the case with cash today, the interest in the local currencies will diminish and they will be used merely as a means of payment while the store of value and the unit of account will be some other currency, such as the digital dollar, the digital euro, the digital yuan, etc.
3.3. Financial stability

The question of financial stability is vital when analyzing the effects of introducing the CBDCs on the banking system and the overall financial system. The CBDCs will affect the functioning of the financial system depending on how successful they are and whether they are in demand. Paradoxically, if the CBDCs are too successful and if there is a high demand for this form of central bank money, it could seriously affect the monetary and financial stability. Thus, the financial intermediation and capital allocation might be affected in normal times, while the financial stability could be jeopardized in times of crisis (Panetta, 2021).

The use of the CBDC by a large majority of the economic agents will reduce the income of banks because of the reduced payments activity. Also, the broad access to digital central bank money will call into question the existing two-tier banking system; thus, instead of being bankers to the national banks, the central banks will have the role of a commercial bank. This will require expanding the personal, technical and overall institutional capacities of the central banks. Disintermediation or the outflow of deposits from banks and other financial institutions is the main risk for the financial system. Depending on the chosen design, the CBDCs may have implication on the monetary policy transmission mechanism, which will provide an opportunity to the central bank to pass the change in the interest rates directly to the deposits of the CBDCs which are much more effective than the existent monetary policy instruments. If the public is allowed to hold significant amounts of money while central bank’s rates are competitive with the commercial banks, it will certainly lead to disintermediating banks and flow of deposits toward accounts at the central bank. However, the leading central banks stated that monetary policy is not the main goal in creating the CBDCs (BIS, 2020: 8).

The CBDCs will enable the public to hold a safe and liquid digital asset which can be held in large volumes at a very low cost. Moreover, as previously mentioned, one of the key principles in the design of the CBDCs should be convertibility of this new form of money into other types of public and private money. These features may enable or accelerate digital runs or transfer of funds from commercial banks towards the central bank in times of crises, thus making the banks and other financial intermediaries more vulnerable.

Traditionally, the authorities have different tools for dealing with bank runs, including deposit insurance schemes, supervision of the financial institutions, and a lender of last resort (LoR) function of the central banks. In the case of the CBDCs, the authorities have further options for mitigating the possible negative effects deriving from the introduction of the CBDCs. Thus, the
authorities could implement quantity-based and quality-based safeguards. The former aims to restrict the use of the CBDCs by imposing limits on the transfers or holdings of the central bank digital money, while the latter tends to disincentivize holdings or large payments in the CBDCs by introducing uncompetitive interest rates on them (BIS, 2021: 14-15).

4. Conclusion

The technological breakthrough with the blockchain technology and the creation of digital private money is one of the reasons for launching digital central bank money (the central bank digital currencies/CBDCs) as a new form of public money which will exist alongside the banknotes and coins and central bank deposits. This process is even more important in times when the role of cash is decreasing amid geopolitical and geoeconomic turbulences that are changing the post-war monetary system. However, the launch of this new form of central bank money is not void of risks for monetary and financial stability. For this reason, the choice of its design is of paramount importance and should be undertaken with great caution. The possible issuance of the CBDCs opens a series of legal question that should be addressed before launching the digital currency. Firstly, the legal basis and the powers of the central bank for issuing digital currency should be assured. Secondly, the monetary sovereignty of the country should be not only preserved but also strengthened. Finally, the financial stability and soundness of the financial and banking system must be preserved.

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CENTRAL BANK DIGITAL CURRENCIES: THE INFLUENCE OF THE DIGITAL EURO PROJECT ON THE DEVELOPMENT OF THE DIGITAL SERBIAN DINAR

Abstract: In this paper, the author analyses central bank digital currencies (CBDCs), from the perspective of the EU and Serbia. After a brief introduction, the second part outlines the main incentives that have led to the current proliferation of national CBDC projects around the world. The third part of the paper examines the arguments for and against the introduction of CBDCs as a new type of central bank money. The fourth part analyses different ways in which a CBDC system can be designed, including the main advantages and disadvantages of particular CBDC designs. The fifth part considers the legal issues surrounding the issuance of CBDCs and their use as a means of payment. Finally, the sixth chapter concludes that Serbia is far from being ready to establish its own CBDC. However, if and when the National Bank of Serbia begins to seriously consider the introduction of a digital Serbian dinar, its design will most likely depend on and be modelled on the digital euro.

Keywords: CBDCs, central bank digital currencies, cryptocurrencies, digital euro, digital Serbian dinar.

1. Introduction

Serbia’s national currency has had a turbulent history due to frequent and fundamental political and economic changes (Nikolić, 2009: 55 et seq.; Logos, 2016: 143, 144; Kršev, 2008: 194 et seq.). After the break-up of the former Yugoslavia, the Serbian central bank responded to a prolonged economic crisis by printing huge amounts of new banknotes without backing, thus causing one of the world’s largest inflations, which lasted from 1992 to 1994

1The first national currency (the dinar) was introduced in the 1870s, when the first banknotes were issued by the Privileged National Bank of the Kingdom of Serbia. See: Nikolić, G., 2009: 55. Vikipedija, 2023; Narodna banka Srbije, Istorijat novca.
(Nikolić, 2009: 69; Crnobrnja, Crnobrnja, 2004: 119 et seq.). This led to a loss of confidence in the national currency and naturally pushed market participants towards certain foreign currencies that were perceived to be the most stable, or at least more stable than the national currency. Although inflation led to the creation of a new national currency – the new dinar (Crnobrnja, Crnobrnja, 2004: 120), the damage had already been done, as confidence in the stability of the national currency was seriously shaken. Since then, Serbia has struggled to rebuild its citizens’ trust in its national currency, which has been a slow and arduous process, given that people in their 40s and older still vividly remember the disastrous consequences of hyperinflation. Today, the challenge of building confidence in the Serbian dinar (RSD) to make it preferable or at least equal to the euro and other (stable) foreign currencies may become even more complicated if developed economies, such as the US or the EU, create their own central bank digital currencies and make them available to foreigners.

If the European Central Bank were to introduce a digital euro open to foreigners, this would give Serbian residents direct access to the ECB’s central bank money, bypassing the Serbian banking system altogether. Such a development in the EU could lead Serbia to consider creating its own digital Serbian dinar to enhance the functionality of the national currency. As in most countries (Mazzetti, 2022: 13; Bindseil, 2019: 2), there are currently two types of central bank money in Serbia: 1) banknotes and coins (i.e. physical currency issued by the National Bank of Serbia), and 2) reserve balances (i.e. digital balances held by commercial banks at the National Bank of Serbia). The idea of adding a new, third type of central bank money to this list is stimulated by various projects in this direction worldwide, but especially in the EU, due to the fact that the euro is often used in Serbia as a so-called secondary currency. Therefore, in view of the European integration aspirations, the most influential project for Serbia in this regard will certainly be the digital euro project. The aim of this paper is to analyse the reasons for and against the introduction of a central bank digital currency (CBDC) from the Serbian perspective, the legal obstacles in this respect, and the possible influence of the future digital euro on monetary law and practice in Serbia.

The paper is structured as follows. Following this introduction, part 2 outlines the main incentives that have led to the current proliferation of national CBDC projects around the world. Part 3 examines the arguments for and against the introduction of CBDCs as a new type of central bank money. Part 4 analyses different ways in which a CBDC system can be designed, including

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3 About euroization in Serbia, see: Narodna banka Srbije, Vlada Republike Srbije, 2018: 5, 6.
the main advantages and disadvantages of particular CBDC designs. Part 5 considers the legal issues surrounding the issuance of CBDCs and their use as a means of payment. Finally, part 6 concludes that Serbia is far from being ready to establish its own CBDC; however, if and when the National Bank of Serbia begins to seriously consider the introduction of a digital Serbian dinar, its design will most likely depend on and be modelled on the digital euro.

2. Paving the way for CBDCs

There is currently no agreed definition of a CBDC (Mazzetti, 2022: 12; Jiang, Lucero, 2021: 1; Bindseil, 2019: 2; Kumhof, Noone, 2018: 4). For the purpose of this paper, a CBDC is understood as a new digital form of central bank money that represents a claim on the central bank, distinct from physical money (banknotes and coins) and commercial bank deposits with the central bank, that can be held, stored and transferred in digital form.

The idea of creating a CBDC arose as a result of several important developments in practice. The most prominent was the development of distributed ledger technology, and in particular blockchain technology, which gave rise to a new type of asset that can be used as a medium of exchange, the so-called cryptocurrencies (or virtual currencies). Cryptocurrencies (such as bitcoin) are not issued by governments; they represent value and can therefore be exchanged for other assets. The main reason for their development was to enable faster, cheaper, peer-to-peer (disintermediated) exchange, even in cross-border situations. The inherently digital nature of cryptocurrencies enabled them to meet the growing demand for an efficient and cost-effective means of exchange in the virtual world.

This trend was further accelerated by the COVID-19 crisis (Gross, Sedlmeir, Babel, Bechtel, Schelling, 2022: 1; Mazzetti, 2022: 12; Didenko, Zetzsche, Arner, Buckley, 2020: 40; Martin, 2021: 110), which made people even more dependent on the Internet and contactless exchange of goods and services (Mazzetti, 2022: 5). However, the existing types of cryptocurrencies (or cryptocurrencies as such) were not perceived as important enough to threaten the traditional banking system due to their extremely high volatility, which prevented them from being used as a unit of account and a store of value (cf. Mazzetti, 2022: 8). To address this issue, the private sector has developed a new sub-category of cryptocurrencies, called stablecoins, whose value is tied to the value of an underlying asset (e.g. precious metals, fiat currency) (Radović, 2023: 227 et seq.). The price stability of stablecoins makes them a potentially viable alternative to existing fiat currencies. In addition, their global acceptance could make them a ‘global money’, acting as a universally
accepted medium of exchange, store of value and unit of account, thus fulfilling the three main functions of money (Didenko, et al., 2020: 6) without being fully controlled by any one state.

The threat posed by the development of such a global stablecoin became imminent when Facebook announced its plan to create its own stablecoin, initially called Libra and later Diem, to be distributed to users of its social network (Mazzetti, 2022: 10; Jiang, Lucero, 2021: 11; Kumhof, Allen, Bateman, Lastra, Gleeson, Omarova, 2020: 2; Ricks, Crawford, Menand, 2020: 1). Considering the global reach such a stablecoin would instantly have, including its potential to become more important than any national fiat currency, potentially threatening the status of the US dollar in international payments, this acted as a wake-up call for central banks to get on track with digital transformation in the modern age (Mazzetti, 2022: 11; Jiang, Lucero, 2021: 11; Didenko et al., 2020: 21-23; Ricks et al., 2020: 1).

Another reason for central banks to actively consider creating their own digital currencies was China’s advanced development of a digital yuan (Jiang, Lucero, 2021: 2 et seq.; Ekman, 2021: 2, 4; Didenko et al., 2020: 28). China’s intention to develop a digital yuan that could be used in cross-border payments more easily, quickly and cheaply than traditional fiat currencies was a cause for concern not only for the US Federal Reserve but also for the European Central Bank (ECB), as it threatened to undermine the dominant role of their currencies in international trade (Ricks et al., 2020: 1; Didenko et al., 2020: 39; cf. Jiang, Lucero, 2021: 12). China’s vigorous pursuit of the digital yuan project provides an additional incentive for others to join the race and offer their own central bank digital currencies.

There are currently more than 80 projects around the world exploring the possibility and different models of introducing a national CBDC, while around 11 countries have already launched their CBDC, such as Jamaica, the Bahamas, the Eastern Caribbean, and Nigeria. In the EU, the ECB started to explore the development of a digital euro back in 2014. Over the past nine years, different models of a digital euro have been discussed, leading to the currently prevailing idea that the digital euro should be open to the public (a so-called retail CBDC), including foreigners, created in addition to (and not instead of) banknotes and coins (physical money), and so on.

As far as Serbia is concerned, the National Bank is well aware of the ongoing projects to create CBDCs around the world. However, despite some news reports to the contrary (Biznis.rs), it seems that the development of a digi-
Serbian dinar is not currently on the National Bank’s list of priorities. Certainly, the situation for Serbia could change dramatically if the EU indeed introduce a digital euro in 2026. Depending on the design features of this future digital currency, it could act as a catalyst for Serbia to accelerate the introduction of its own CBDC in order to improve the functionality and attractiveness of its national currency compared to other foreign currencies, especially the euro.

3. Pros and cons of setting up a CBDC
The introduction of a new type of central bank money is a complicated undertaking that may fundamentally change the monetary system as we know it today. Therefore, it is necessary to analyse all the possible benefits and risks associated with CBDCs in order to determine whether, on balance, their introduction would add value to the current financial system. If, on the other hand, the risks outweigh the benefits and cannot be properly managed, it would obviously be more prudent to refrain from entering this terra incognita and instead encourage the further development of private digital currencies while placing them within clear and protective legal boundaries.

In the literature, several main benefits of CBDCs are usually highlighted (Didenko et al., 2020: 34, 35). These are: a) financial inclusion; b) payment efficiency; c) control of illicit payments; and d) additional monetary policy tools.

a) Financial inclusion. The CBDC is intended to bring digital money to all people, including those who are currently unbanked or underbanked (i.e. who do not have a bank account and do not have access to electronic payment instruments) (Mazzetti, 2022: 23; Siklos, 2021: 8; Jiang, Lucero, 2021: 8; Ricks et al., 2020: 8 et seq.; Nabilou, 2019: 13). This is particularly important in areas where there are no bank branches. However, for a CBDC to improve financial inclusion, it is necessary that households and businesses are technically equipped to use this form of digital money (Siklos, 2021: 8; Jiang, Lucero, 2021: 9). For example, they would not only need access to the Internet and a smartphone but they would also need to have sufficient skills to use these technologies. Unfortunately, vulnerable groups in Serbia often lack these prerequisites for using digital money, which is why financial inclusion does not seem to be as strong an argument for introducing a digital Serbian dinar as it would be in some other countries.

b) Payment efficiency. It is often argued that the widespread use of CBDCs would contribute to faster and cheaper payments (Jiang, Lucero, 2021: 7; Bindseil, 2019: 3; Fung, Halaburda, 2016: 2 and 3; Ricks et al., 2020: 11 et seq.; Nabilou, 2019: 14). However, from a Serbian perspective, this argument
(at least in part) does not seem very convincing. Serbian banks participate in an instant payment system operated by the National Bank of Serbia (known as the IPS NBS system), which allows for the execution of domestic payment transactions within a few seconds after they are initiated. Therefore, it is hard to imagine that a digital Serbian dinar could significantly improve the speed of domestic transfers of funds that are already covered by the instant payment system. These include payments of up to 300,000 Serbian dinars and thus largely meet the needs of everyday retail transactions. For this reason, payment efficiency could be an important argument for introducing a Serbian CBDC only in cases where the IPS NBS system cannot or is not used in practice, such as payments above 300,000 Serbian dinars or Internet payments. On the other hand, as far as the cost-effectiveness of CBDCs is concerned, it goes without saying that a CBDC system providing direct access to central bank money without the intermediation of commercial banks or other payment service providers would certainly reduce the cost of making payments.

c) Improving cross-border payments. One of the major problems of current payment systems is the inefficiency and cost of cross-border payments (Didenko et al., 2020: 14). Due to the fact that monetary and payment systems are developed separately in different countries, any cross-border payment currently involves an expensive and time-consuming execution through a number of interconnected financial intermediaries. In Serbia, the execution of a payment to a foreign account can in some cases take up to three days or cost more than 20% of the transaction amount. It is often argued that a national CBDC could improve cross-border payments by making them faster and less costly (cf. Siklos, 2021: 6). This would indeed be the case if holders of CBDCs issued in different countries had direct relationships with central banks, so that any cross-border transfer of a CBDS would be disintermediated and rely solely on the interconnectedness of those central banks. Consequently, improving cross-border payments through CBDCs requires international coordination between central banks to develop common standards and infrastructure (cf. Nabilou, 2019: 14).

d) Better control of illicit payments. Keeping an electronic record of CBDCs and their holders would enable the central bank to monitor and control every payment transaction made in this currency (Jiang, Lucero, 2021: 8; Bindsel, 2019: 2, 3). Especially in the scenario where CBDCs would completely replace physical money (banknotes and coins), anonymity in payment transactions

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6 Narodna banka Srbije (2023). IPS NBS system

7 Narodna banka Srbije (2023). IPS NBS system
could be significantly reduced. Such increased oversight of payments could be used to combat money laundering and terrorism financing, but also to fight corruption more effectively (Siklos, 2021: 8).

e) Additional monetary policy instruments. The introduction of a CBDC as a new form of central bank money could, depending on its specific design, have important implications for monetary policy. Characteristic features of a CBDC could provide the central bank with a whole new set of monetary policy instruments for achieving and maintaining price stability and, consequently, financial stability (Mazzetti, 2022: 22, 23). If a CBDC is designed in such a way that it bears an interest rate, the central bank could influence private money demand and creation simply by changing the interest rate on the CBDC (Bindseil, 2019: 3, 20). In addition, some studies consider the possibility and effects of allowing a negative interest rate on CBDCs, below the zero lower bound (ZLB), in order to encourage spending and thus stimulate the economy (Mazzetti, 2022: 22; Bindseil, 2019: 3-4, 20; Nabilou, 2019: 11, 12). Finally, as a digital form of publicly available central bank money, CBDCs would allow the central bank to more easily use “helicopter money” as a monetary policy tool by distributing new CBDCs directly to households and businesses that already have their CBDC accounts with that central bank (Siklos, 2021: 10; Bindseil, 2019: 4, 5).

Notwithstanding the obvious benefits of CBDCs, there are also significant arguments against their introduction, or at least against certain ways in which they can be designed (Didenko et al., 2020: 36, 37). These include: a) privacy issues; b) disintermediation of banks; c) operational issues; and d) monetary and financial stability.

a) Privacy issues. Although CBDCs would allow central banks to combat illicit payments by monitoring all transactions in that currency, this obviously raises privacy concerns (Siklos, 2021: 8; Jiang, Lucero, 2021: 21; cf. Ricks et al., 2020: 38). If detailed data on payment transactions in CBDCs is concentrated in one entity (i.e. the central bank), there is a risk that such data could be misused for purposes other than combating illicit payments (Gross et al., 2022: 2). Furthermore, the creation of a CBDC as a complete replacement for physical money could remove the possibility of making legitimate anonymous payments with central bank money, thus destroying any privacy surrounding regular, legitimate payments.

b) Disintermediation of banks. Currently, in countries where there are no CBDCs, the demand for digital money is primarily met by bank deposits and various payment services associated with them, which are offered by commercial banks. However, if the CBDC model is developed to be accessible
to everyone and not only to certain financial intermediaries (the so-called “retail CBDC”), this would significantly reduce the demand for electronic payments offered by commercial banks and, consequently, the amount of money held in bank sight deposits (Bindseil, 2019: 3, 5; cf. Kumhof, Noone, 2018: 5). Provided that a CBDC can be transferred digitally to a payee with at least the same ease and efficiency as current commercial bank money, it is logical to expect that households and businesses would move away from bank deposits and towards direct holdings of central bank money (Bindseil, 2019: 10). Such a reduction in the role of commercial banks would reduce their ability to provide credit and increase the role and responsibilities of the central bank in the overall financial system (cf. Mazzetti, 2022: 35; Ricks et al., 2020: 20 et seq.). In other words, the central bank would be forced to take over many functions that are currently performed by a large number of commercial banks, a task that is difficult to perform efficiently and reliably by a single entity, especially in the case of the euro area.

c) **Operational issues.** The creation of a CBDC, together with the concentration of all or the vast majority of digital payments in the central bank, raises a number of operational concerns (Siklos, 2021: 11). The fact that all data relating to CBDCs and their transfers would be in the hands of a single entity leads to a system with a potential single point of failure, where the central bank’s inability to process payments or protect all data could cause the whole system to collapse. In addition, keeping all CBDC records in one place would appear to make the central bank an easy target for cybercriminals and hackers (Siklos, 2021: 10; Jiang, Lucero, 2021: 23; Gross et al., 2022: 1, 2).

d) **Monetary and financial stability.** Last but not least, the impact of the issuance of CBDCs on monetary and financial stability is still under discussion. There is a serious risk that a successful and attractive CBDC model available to the public would lead to structural changes in the financial system as we know it today. Since a CBDC represents central bank money which is free of credit and liquidity risk, and which can be acquired and transferred “at the speed of a click”, it would not only reduce the role of commercial banks in the financial system in general but could also facilitate so-called “digital bank runs” in times of crisis. The main problem with such a digital bank run is that the conversion of bank deposits into CBDCs could happen much faster and easier, leading to a severe and sudden impact on monetary and financial stability that could not be easily resolved.

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8“The excessive use of the digital euro as a form of investment and the associated risk of sudden large shifts from bank deposits to the digital euro should be avoided.” (European Central Bank, 2020: 16).
4. Different CBDC models

Many of the arguments against the introduction of CBDCs can be overcome by choosing the optimal CBDC design. In this respect, there are a number of options for central banks and governments to consider, the most prominent of which include CBDC models that are: a) wholesale or retail; b) account-based or token-based; c) based on DLT technology or central records; d) interest-bearing or non-interest-bearing; e) replacing or coexisting with cash; and f) for domestic payments only or also for international payments.

a) Wholesale or retail CBDCs. In the case of a wholesale CBDC model, this type of central bank money would be accessible only to a limited group of professional market participants, such as commercial banks and certain non-bank financial intermediaries (Mazzetti, 2022: 15; Bindseil, 2019: 2; Kumhof, Noone, 2018: 5; Gross et al., 2022: 4). Others might be able to hold and use such wholesale CBDCs only indirectly, through these financial intermediaries, in what has been described in the literature as a hybrid solution – between a pure wholesale and a pure retail model. This way of designing a CBDC system would be very similar to today’s access to central bank reserves through sight deposits with commercial banks. On the other hand, in a retail CBDC model, also known as a “general purpose” CBDC, this digital currency would be available to everyone (i.e. the general public), as is the case with banknotes and coins (Mazzetti, 2022: 15; Bindseil, 2019: 2; Didenko et al., 2020: 29; Kumhof, Noone 2018: 5; Gross et al., 2022: 4). According to some statements made by representatives of the ECB, a digital euro is planned to be designed as a retail digital currency accessible to all households and businesses (Mazzetti, 2022: 39; Martin, 2021: 112).

b) Account-based or token-based CBDCs. A CBDC system can be structured as either an account-based or a token-based system. In an account-based CBDC model, holders of CBDCs are required to hold an account with the central bank, in which the amount and value of the CBDCs, including all transactions relating to them, would be recorded (Mazzetti, 2022: 17; Bindseil, 2019: 2; Gross et al., 2022: 5; Nabilou, 2019: 16). The focus here is on the account relationship between the CBDC holder and the central bank, as any transfer of CBDCs necessarily involves changes to the ledger held by the central bank, where a certain amount of digital currency is removed from the account of the transferor and added to the account of the recipient. As an account-based CBDC model relies on centralised record keeping and the active involvement of the central bank in the verification and execution of each payment transaction, this type of CBDC design is inherently centralised (Nabilou, 2019: 17). In addition, it serves primarily as an enhanced payment system.
In contrast, a token-based CBDC model requires CBDCs to be treated as digital representations of value that can be held, stored and transferred in digital form (cf. Nabilou, 2019: 17; Mazzetti, 2022: 18). When CBDCs are tokenised, the central bank is only actively involved in their issuance, but not in their subsequent transfers between market participants (Nabilou, 2019: 17; cf. Gross et al., 2022: 5). In this sense, a token-based CBDC is very similar to banknotes and coins, acting as their digital equivalent. Given that the central bank does not maintain a centralised record of CBDC holders and/or does not use a centralised verification system to execute payment transactions, this type of CBDC design is sometimes referred to as decentralised (Bindseil, 2019: 2; Nabilou, 2019: 17). Tokenised CBDCs with such features would indeed become a new type of central bank money that is clearly distinguishable from physical money and reserves, unlike account-based CBDCs that would function on similar principles as reserves. Thus, the introduction of a tokenised CBDC would lead to significant changes in the current monetary system.

c) A CBDC system based on DLT technology or central records. Although the idea of introducing CBDCs was spurred by the development of cryptocurrencies using blockchain technology, a CBDC model does not necessarily require the use of such technology (Kumhof, Noone, 2018: 5). Therefore, CBDCs could be based not only on distributed ledger technology (DLT), including blockchain technology, but also on centralised records maintained by a single person (Mazzetti, 2022: 19; Didenko et al., 2020: 30 and 31; Raskin, Saleh, Yermack, 2019: 6; Fung, Halaburda, 2016: 16; Gross et al., 2022: 5; cf. Ricks et al., 2020: 29). Given that DLT technology involves decentralised record keeping and verification of transactions, it raises a number of specific concerns regarding the control and decision-making powers, as well as the liabilities, of the individuals who enable the network to function. For this reason, a fully decentralised blockchain is probably not the best infrastructure on which to build a CBDC system. The central bank would want to maintain control over the system; thus, keeping central records or at least building a permissioned (i.e. closed) blockchain would be the preferred option (cf. Martin, 2021: 113; Mazzetti, 2022: 20).

d) Interest-bearing or non-interest-bearing CBDCs. With regard to the payment of interest on CBDCs, there are two main options: either to create an interest-bearing CBDC or a non-interest-bearing CBDC. At present, the two existing types of central bank money, physical money (i.e. banknotes and coins) on the one hand and reserves on the other, are treated differently in this respect. While physical money bears no interest, as it pays a fixed nominal interest rate of zero, reserves pay a positive nominal interest rate (Kumhof, Noone, 2018: 10). In designing national CBDCs as a new type of central bank money,
governments could choose whether to make CBDCs equivalent to cash or to make them more similar to reserves with regard to the payment of interest. In the former case, the nominal interest rate on CBDCs would be zero, which is why this type of CBDC is called non-interest-bearing. Conversely, in the latter case, CBDCs that pay a rate of interest (i.e. so-called interest-bearing CBDCs) offer a whole range of new possibilities, starting with adjustable (variable) or fixed interest rates, exclusively positive interest rates or also allowing a negative interest rate (below the zero lower bound), etc. (Kumhof, Noone, 2018: 8). The economic implications of each model are currently being analysed and debated, but one thing is clear – an interest-bearing CBDC would allow the development of additional monetary policy tools in the hands of the central bank. This is important because in times of crisis, CBDCs would obviously become the preferred option to bank deposits, as they are risk-free and at the same time meet the need for electronic payments.

e) **CBDCs replacing or coexisting with cash.** A further issue to be considered when deciding on an appropriate CBDC model is whether CBDCs should be issued to replace cash entirely, or whether they should coexist with cash as a distinct new type of central bank money (Fung, Halaburda, 2016: 13). This consideration is of particular interest in countries where the use of cash in the economy as a whole is in extreme decline, so that a digital form of central bank money acting as an equivalent digital substitute for cash would meet the obvious needs of households and businesses. However, the same is not the case in Serbia, where people still rely on paper money for a large number of transactions, so that cash is still far from being completely replaced by electronic payments. It is worth noting that the EU’s Digital Euro project is also considering a CBDC model, where this type of digital currency would coexist and not fully replace cash (Martin, 2021: 112).

f) **CBDCs for domestic or international payments.** If a CBDC is designed to be open to the general public, access to this digital currency can still be restricted to residents of the issuing country. In such a scenario, the use of national CBDCs would be limited to domestic payments, allowing central banks to better control their impact on financial and monetary stability and to use various monetary policy instruments more effectively. In contrast, a CBDC system could be fully open to all, both residents and non-residents, so that such a digital currency could also be used for cross-border (i.e. international) payments. Although allowing cross-border payments with the national CBDC raises many concerns (Mazzetti, 2022: 21), especially from a monetary and financial stability perspective, it may become imperative for some countries, such as the US, if they want to compete with China’s digital yuan and maintain their currency’s leading role in international payments.
In addition to the alternative models mentioned above, there are a number of other options to consider when designing a CBDC system, such as whether CBDCs should be convertible into reserves or non-convertible (Bindseil, 2019: 21; Kumhof, Noone 2018: 8, 9), whether banks should guarantee on demand convertibility of sight deposits into CBDCs or not (Kumhof, Noone, 2018: 14 et seq.; Bindseil, 2019: 22), whether the total amount of CBDCs held by any one person should be limited or unlimited, whether CBDCs should be held directly or only indirectly through intermediaries, etc. (Kumhof, Noone, 2018: 5; Fung, Halaburda, 2016: 16).

As regards the digital euro project, the latest information available suggests that it will be designed for retail payments in the Euro area and issued as an additional type of ECB money, complementing cash and central bank deposits. In order to minimise privacy concerns and over-centralisation, the digital euro will be intermediated by banks and other prudentially supervised intermediaries (e.g. payment service providers) (Panetta, 2023). Finally, the total amount of the digital euro held by any one person would be limited (currently to 3,000 Euros) in order to avoid its primary use as a store of value and the unexpected negative consequences this would have on the financial and monetary system (Panetta, 2023).

It can be concluded that the EU is still cautious about the digital euro and will not allow it to have a sudden and unexpected negative impact on financial stability. A tentative timetable shows that the search for the optimal model is underway and should be completed by the end of 2023 (Panetta, 2023). It will, of course, take some time to actually implement the project and distribute the digital euro to citizens and businesses. Europe’s cautious approach, coupled with the lower average level of digital literacy in Serbia, will certainly influence the Serbian legislator to postpone the introduction of the digital Serbian dinar, at least until other CBDC projects – including the EU digital euro project – start to work well in practice.

5. Main legal issues relating to CBDCs

The introduction and design of a CBDC system is not only challenging from an economic perspective but also raises a number of legal concerns. The main legal concerns relate to: 1) the authority of the central bank to establish a CBDC; and 2) the legal tender status of a CBDC.
5.1. Central bank authority to establish a CBDC

The first issue to be resolved is whether the central bank is authorised under the current legislation to create a CBDC as a new type of central bank money (Mazzetti, 2022: 25). Even in the EU, there is a debate on how the relevant provisions of the TFEU and the Statute of the ESCB should be interpreted in this respect.

On the one hand, Article 128 TFEU gives the European Central Bank the exclusive right to authorise and approve the issue of euro banknotes and coins. Since banknotes and coins are commonly understood as physical (i.e. tangible) money, such a literal interpretation would certainly not allow the ECB to issue a digital currency equivalent to cash. However, a teleological or purposive interpretation of Article 128 TFEU could lead to a different conclusion, provided that an ECB digital currency serves the same purpose and logic as existing banknotes and coins (Mazzetti, 2022: 40, 41). This could, of course, only be achieved if a CBDC is designed as a token (Mazzetti, 2022: 26), so that the anonymity of its holders is preserved and transfers between market participants are possible without the involvement and intermediation of the central bank.

On the other hand, it is undisputed that an account-based CBDC model cannot be read into Article 128 TFEU. Therefore, the ECB’s power to create an account-based digital euro cannot be derived from this Treaty provision. Given that current EU legislation does not explicitly prevent the ECB from opening accounts for all households and businesses, some argue that an account-based digital euro available to the general public would indeed be legally possible without any legislative reform. This view is directly supported by Article 17 of the Statute of the ESCB, which allows the ECB to open accounts for credit institutions, public entities and other market participants in order to conduct their operations. Provided that ‘other market participants’ is interpreted broadly to include all households and enterprises, this provision could serve as a basis for opening CBDC accounts with the ECB for the general public (Mazzetti, 2022: 44).

In Serbia, the regulation of the central bank’s powers regarding the creation of a digital Serbian dinar is similar to the one in the EU and therefore faces almost identical problems. According to Article 4(1)(4) and Article 53(2) of the Act on the National Bank of Serbia⁹, the National Bank has the exclusive right to issue banknotes and coins. As in the EU, this provision is currently interpreted literally to cover only physical money. However, it is possible to

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apply a broader teleological or purposive interpretation to the wording of the cited provision, which would authorise the National Bank to issue not only physical banknotes and coins but also their digital equivalents – i.e. a specific model of a token-based digital Serbian dinar. As far as the account-based CBDC model is concerned, the problem in Serbia is that the National Bank currently holds accounts only for a limited number of entities (mainly banks and public institutions)\(^\text{10}\) and is therefore not accessible to the general public in this respect.

### 5.2. Legal tender status of a CBDC

The second important legal issue related to the establishment of a CBDC concerns its legal tender status. Currently, in both the EU and Serbia, legal tender status is granted to banknotes and coins denominated in the national currency (i.e. the euro and the Serbian dinar, respectively) (Martin, 2021: 119).\(^\text{11}\) Although the essential characteristics of legal tender are not explicitly regulated in the EU, the European Commission has adopted a non-binding Recommendation on the legal tender of the euro,\(^\text{12}\) according to which the legal tender status of euro banknotes and coins means, in principle, that:

(a) the creditor of a payment obligation cannot refuse to accept them as means of payment (the so-called ‘mandatory acceptance’ rule);

(b) their monetary value is equal to the amount indicated on them (the so-called ‘full face value’ rule); and

(c) the debtor may discharge himself from the obligation to pay by tendering them to the creditor (the ‘discharging effect’ rule) (EC Recommendation, 2010).\(^\text{13}\)

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\(^{13}\) Point 1, Commission Recommendation of 22 March 2010 on the scope and effects of legal tender of euro banknotes and coins, Official Journal EU, L 83, 30.3.2010, p. 70–71. The same characteristics of a legal tender are recognized by the European Court of Justice. See: Judgment of the Court (Grand Chamber) of 26 January 2021, Joined Cases C-422/19 and C-423/19, Johannes Dietrich and Norbert Häring v Hessischer Rundfunk, para. 46. Retrieved
Exceptions to these rules are only possible if the creditor and the debtor have agreed otherwise or if such exceptions are justified on the basis of the “principle of good faith”.\textsuperscript{14}

Unfortunately, there is no legal act in Serbian law, not even a non-binding one, defining the main characteristics of legal tender. Nevertheless, the rules set out in the cited EU Recommendation also reflect the common understanding of the meaning and effects of legal tender status in Serbia (Radović, 2016: 28). As banknotes and coins are now the only type of central bank money available to the general public, their exclusive legal tender status is undisputed. Yet, the situation could change dramatically after the introduction of a CBDC, provided that this new type of central bank money would also be available to all households and businesses, thus functioning as a digital counterpart to physical money (i.e. cash).

Should a digital euro or a digital Serbian dinar have the same legal tender status as banknotes and coins? There are conflicting views on this issue in the literature. On the one hand, the majority of authors seem to agree that a CBDC should not have a legal tender status. The main argument in support of this view is that payment and acceptance in CBDCs requires a certain level of technical sophistication and equipment (including a CBDC wallet or account) on the part of both the creditor and the debtor (Mazzetti, 2022: 29). It is therefore concluded that the application of the ‘mandatory acceptance’ rule to CBDCs as legal tender would not be justified.

On the other hand, if CBDCs are designed as a digital functional equivalent of banknotes and coins, there is no reason why they should not be granted a legal tender status. Indeed, the creditor should in principle not have the right to refuse payment in CBDCs, since this type of money is issued directly by the central bank and, thus, carries no credit or liquidity risks. Therefore, the ‘mandatory acceptance’ rule should in principle apply to CBDCs in the same way as to banknotes and coins. Of course, if either the creditor or the debtor does not fulfil all the technical conditions for accepting or making payments in CBDCs (e.g. does not have a CBDC wallet or account), this should constitute a justified exception to the ‘mandatory acceptance’ rule under the principle of good faith.

Finally, it is debatable whether a broad interpretation of the term “banknotes and coins” should also be applied to the legal tender provisions of the current

EU and Serbian legislation, as it is sometimes suggested in connection with the central bank’s authority to issue this type of money (Mazzetti, 2022: 47). If such a broad interpretation were to be applied, CBDCs would enjoy a legal tender status without the need for legislative amendments in this respect. However, in view of the different opinions on this issue, it seems advisable to explicitly regulate the role of a CBDC as a means of payment in order to avoid any doubt as to its legal tender status.

5.3. Other legal issues

Given that the introduction of a CBDC would represent an important monetary reform, there are a number of additional legal issues that would need to be addressed in order to ensure the smooth functioning of this type of money. One of the most important issues relates to the privacy concerns associated with CBDCs (Mazzetti, 2022: 30, 50), which would most likely need to be addressed by strengthening and upgrading existing privacy protection mechanisms. The same applies to anti-money laundering and combating the financing of terrorism in the case of CBDC payments. Depending on the degree of anonymity of CBDC holders and transactions, the current AML/CFT legal regime would also need to be amended and improved to adapt to the new possibilities for illicit payments in CBDCs.

Apart from these public law issues, from a private law perspective, different CBDC models raise numerous questions, such as: a) whether CBDC holders would have a claim against the central bank to request the conversion of CBDCs into cash; b) whether CBDC account holders would have a contractual relationship with the central bank and with what rights and obligations; c) whether CBDCs held indirectly through a financial intermediary (e.g. a bank) would be treated as the property of the ultimate account holder, etc. It is important to note that these issues would only be the tip of the iceberg if CBDCs were to be created and distributed to the general public.

In conclusion, the previous analysis has shown that the current EU legislation is not clearly accessible and supportive of any kind of CBDC design. For this reason, a legislative reform will certainly be necessary to fully take into account the specificities of the final digital euro project (cf. Mazzetti, 2022: 45). Given the complexity of creating a viable CBDC system, it seems prudent for the Serbian authorities to continue with their ‘wait and see’ approach and eventually learn from what the EU and our other major economic partners are achieving in this area.
6. Conclusion

The introduction of a national CBDC is a complex undertaking that requires thorough preparation and analysis, especially by economic and legal experts. There are currently many ideas and alternatives on how a CBDC system should be designed. Sufficient financial and intellectual resources are needed to test these models and predict their full impact in practice as accurately as possible. However, Serbia not only lacks such adequate resources but also does not consider the modernisation of the monetary and payment systems in this way as a top priority at the moment. For this reason, it can be expected that Serbia will follow the example of highly developed countries, especially the EU, rather than take the lead with its own digital Serbian dinar project. Thus, the digital euro project, once completed, could push the Serbian government to introduce its own national CBDC, which would in all likelihood be modelled on the CBDC design chosen by the EU.

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**Case law**

TOKENIZATION AS A LEGAL PHENOMENON: DETERMINANTS AND FEATURES

Abstract: There is no generally accepted and established definition of "tokenization". Substantively, tokenization is a form of digitization of assets. The essence of tokenization is the expansion of the possibility of exchanging assets between entities directly without intermediaries and other restrictions. Consequently, tokenization shall find its place in legal discourse. In order to provide most relevant answers to the issues raised by tokenization applied at different set of circumstances, values and subjects of tokenized transaction, the legal analysis shall be part of a multidisciplinary approach with balanced and blended attitudes. The benefits of tokenization are multifaceted (democratization and facilitated access to financial processes, increased liquidity, process optimization). The typology of tokens is consolidated in general. However, the very nature of the token phenomenon has in-built innovativeness resulting in new forms of tokens. Therefore, the tokens taxonomy has to stay vibrant and openness-driven in order to present a viable framework for the systematization of tokens.

Keywords: tokens, tokenization, Bitcoin, Initial Coin Offering-ICO, blockchain, smart contracts.

1. Introduction

There is no generally accepted and established definition of "tokenization". Yet, there is a consensus about its main feature: it is a digitized process of issuing tokens; a token is essentially a digital file that represents the right contained in it.

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2 The article is a result of scientific research funded by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (contract registration number 451-03-47/2023-1/200120, dated 3 Feb. 2023).
Substantively, tokenization is a form of digitization of assets. The right contained in the token can be the right of ownership over a movable or immovable thing, a share in a company, an intellectual property right, a financial instrument, the right to participate in profits (the right to dividends), the right to an interest, the right to demand the fulfillment of a certain act, etc. The essence of tokenization is the expansion of the possibility of exchanging assets between entities without existing restrictions. Participants in transactions meet directly, without intermediaries and transaction costs, without geographic and time restrictions, and with significantly more liquidity and transparency, which simplifies real-time auditing.

Legal community has recognized the importance of the phenomenon. Consequently, tokenization shall find its place in legal discourse. The factors shaping and determining the distinctive features of tokenization are as follows:

The phenomenon concerned has at least threefold perspective: technological, economic and legal one. Therefore, the legal analysis shall be part of a multidisciplinary approach, including balanced and blended attitudes, in order to provide most relevant answers to the issues raised by tokenization applied in different set of circumstances, values and subjects of tokenized transaction.

Given that tokenization is a relatively new phenomenon, values which have to be protected and secured in the tokenization process shall be identified in order to formulate relevant legal rules and principle properly. The illustrative list of those values includes:

- democratization and facilitated access to financial processes (since tokenization is the manifestation of peer-to-peer transactions);
- increased liquidity by simplifying the transaction (e.g., collectibles such as wine, old-timers etc.) and efficient (24/7 market access);
- disintermediation: tokenization has the potential to reduce the need for trusted intermediaries (i.e. it is based on peer-to-peer trading);
- increased transparency: tokenization increases transparency and traceability of token ownership;
- process optimization (e.g. automated dividend payments through smart contracts).

Tokenomics is an emerging field that studies the economics of cryptocurrency coins and tokens. Just as in regular economics that we are all familiar with, the field fundamentally looks at the supply and demand of cryptocurrencies. For more about Tokenomics, see: Kampakis, 2018:1.
Tokenization enables the transfer of tokens through peer-to-peer connections, without the intervention of a third party. This form of asset is very liquid, as it is possible to sell or buy it at any time on the trading platforms. Although in principle any form of property could be tokenized, there are areas where the process of tokenization is much simpler in comparison with other ones. Certain assets are easily replaceable. For example, intangible assets are easier to tokenize precisely because they do not exist in a physical form; yet, certain differences in processes and jurisdictions, such as copyright, can make these transfers difficult. Fungible assets are also more amenable to the token conversion as it is generally possible to divide them into several units (e.g. parts of a certain amount of value).

With tokenization, the right to and part of the property can be more easily transferred (in comparison with existing, non-digital methods) since the tokenization technology allows for the fragmentation of rights to the smallest possible level. For illustration, in the case of real estate tokenization, the subject can be the owner of a thousandth part of some immovable property, or rights stemming from immovable property. The possibility of trading arise as the consequence of more possibility to participate in such trading (i.e. more subjects can buy or sell small fragments of the asset in accordance with their own interests and available means), thus contributing to the higher level of liquidity of asset concerned (Kull, Naumann, 2022:37-38)

Tokenized assets can be distributed more efficiently. In addition, tokenization creates new sources of value (income) by automating the exchange process, without mediation and validation by third parties, with the additional possibility of connecting to Big Data from the digital environment and digital systems.

2. The ICO procedure

Tokens mostly became popular with the emergence of the ICO procedure (Initial Coin Offering), where teams (using white papers and sometimes highly

4 “Big data” is understood as the possibility, based on the digitization of large parts of the economy and society and the associated rapid growth in available data, to obtain value-adding and decision-relevant knowledge by collecting, storing and evaluating any data at low marginal costs and, if possible, to automate such data and use it in real time. Big data can be used to create a data-driven basis for decision-making, which may lead to better results than traditional data analysis. Data is the smallest unit of machine-readable coded information. The amount and quality of such data is decisive for the quality of the result of Big data analysis. Big data is based on four “V” features: 1) Volume of data; 2) Velocity of data processing; 3) Variety of data; 4) Veracity of data (Herbert, (2014: 728).
debatable business ideas) issued tokens on the basis of which they collected huge amounts of money. An ICO is a way for a company or organization to create their own cryptocurrency and then offer it publicly for purchase. In an ICO, buyers of the new token exchange cryptocurrencies with the company for newly created tokens. The company gets capital; the buyer gets the tokens and all the promises that come with it.

The key document of the ICO project is a white paper. It is a document issued by the company behind the ICO project. White paper is the main channel to inform potential ICO investors: this document entails voluntary disclosure of information that typically consists of a business idea description, a roadmap including key milestones, the intended use of proceeds, the team beyond the project at stake, and a time schedule for the token sale (Florysiak, Schandlbauer, 2019:13, *passim*). More specifically, it informs potential investors about the perceived possible problems, the manner of problem solving, the number of tokens issued, the price of tokens, how the tokens will be issued, how they will be used, how much capital they plan to raise, etc. The information contained in the white paper is of immense importance; namely, during the ICO process, there are no specialized intermediaries, such as investment banks to assume the risk of the issue. White paper is the key resource for the decision making about risk taking or risk adverse behavior.  

When it comes to the ICO procedure, at the very outset of entering the tokenization process, it is necessary to create a token and a smart contract. There is no ICO without them; the token distribution is realized through a smart contract pre-programmed on the blockchain. Once created, the smart contract cannot be modified; the slightest error in the code means the collapse of the entire system. When sending funds, investors need to provide their crypto wallet address where they will receive tokens. In practice, the larg-

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5 Every ICO project has a soft cap and a hard cap. A soft cap is a predetermined minimum amount of money that the project must collect in order to start implementing the plan. A hard cap is the maximum amount that the project plans to collect from investors.  

6 Blockchain and smart contracts are two different technologies that are closely related to each other. Smart contract is a blockchain-based computer program (hereinafter: code) that authenticates, enables and implements the contract norms contained in the program code. It is based on a cryptographic process that enables the execution of contracts once the assumptions contained in the code have been met. The smart contract automatically fulfils the obligation, in accordance with parties’ agreement. Once the smart contract (in the form of the program code) is entered into the Blockchain, the only way in which the execution of the program can take place is according to the code loaded (Cvetković, 2020:89-90)  

7 Crypto wallets are applications, devices or ways to store, send and receive cryptocurrencies. As they only exist in digital form, cryptocurrencies are not held in a physical wallet, but in
The number of issued ICOs are created on the Ethereum blockchain. The reason for this is that it is faster and cheaper to use the Ethereum blockchain than to build your own. In most ICO projects, the issued tokens do not give investors the right to share in the company and the right to make decisions.

3. Token classification

There is no single and generally accepted classification of tokens. A token is a digital presentation of value on the blockchain, and tokenization is the process of transforming value into digital form by using blockchain technology. The key criterion in both cases is the value that is in digital form and resides on the blockchain. Tokens content or value can be freely defined (within the scope of what is technically possible as well as the legal, tax or administrative restrictions). In this capacity, the tokens differ from many conventional units of value, securities and above all from fiat currencies.

First and foremost, it is important to make a distinction between a token and a coin.

Coin is a label for a means of payment (as gold once was). Coin is used to buy and sell things. Coins are therefore digital money: exchangeable, divisible, a blockchain. They are accessed through the mechanism of cryptography, i.e. public and private keys (Imfeld, 2022: 8-11). The public key is an address on the blockchain where cryptocurrencies reside; it is available to everyone. On the other hand, there is the private key which is visible only to the holder of the crypto wallet and has a similar function as a credit card pin number. The private key enables access to the crypto wallet. As a backup option, there is a random set of words (in case the private key is lost), i.e. “seed phase”. In case the private key and seed phase funds are lost, they are still on the blockchain, but they are inaccessible (Erinle, Ketepalli, Feng, Xu, 2023). There is a well-known case of a billionaire James Howell, who threw away the old hard drive where he collected 7,500 bitcoins (worth over 200 million Euros at the time).

Ethereum is a public distributed “open source” development platform based on blockchain technology created to enable developers to develop decentralized applications. It is based on blockchain and Bitcoin experiences. It has its own programming language (“Solidity”) and compensation system (Ether). The principles of the Ethereum protocol are simplicity, universality, modularity, flexibility and non-discrimination (Dannen, 2017: 89-111).

In addition to the white paper, two common documents are blue-paper and light-paper. A blue-paper is an official document that contains detailed specifications of products and services offered to the public. Light-paper is an abbreviated version of a white paper that contains relevant information necessary for investors when making a complete investment decision, such as an abbreviated prospectus.

Fiat money refers to currencies that have no intrinsic value but whose value was “artificially” created by an organization/institution. The term “Fiat” comes from Latin and describes something that is in the making.
portable, permanent and with a limited volume (there is only as much money as it is printed; there are as many bitcoins as they have been mined). Their only function is to imitate money.

On the other hand, a token can be a representation of the company’s property, or a representation of the right to access services or products. Bitcoin (and any other coin) can be used to buy a token, but the token cannot be used to buy Bitcoin (or any other coin). Tokens can be used as a means of payment but within the ecosystem of the project (then, they have the function of a coin). In addition, they give the right to the holder of rights on the token to participate in the network (project) in which the token functions. A token is similar to a concert ticket: it can be used at a certain time, at a certain place, and in a certain project; it is only valid in a concert hall and cannot be used, for example, to pay a bill in a restaurant. Digital tokens are just that: they have a use within a specific project.

The typology of tokens is consolidated in general. However, the very nature of the token phenomenon has in-built innovativeness resulting in the new forms of tokens. Therefore, the tokens taxonomy has to stay vibrant and openness-driven in order to present a viable framework for the systematization of tokens. The basic taxonomy of tokens is threefold:

- Payment Tokens
- Utility Tokens
- Security Tokens.

3.1. Payment Tokens

Payment tokens\textsuperscript{11}, such as Bitcoins, can be used as a means of exchange; the initial purpose of Bitcoin was to serve as a currency. Having the function of money, payment tokens can:

- **store the value** (they may be traded for goods and services at any time in the future);
- **be used as a unit of an account** (as a tool for measuring market value of goods, services and debt).

On 9 June 2021, El Salvador was the first state in the world to adopt Bitcoin as the legal tender in its jurisdiction. In April 2022, the Central African Republic

\textsuperscript{11}Payment tokens are basically coins. Here we are using the term „token” more broadly, including coins as the type of tokens (see supra in part 3 of this Article) in order to make a coherent taxonomy of type of tokens.
became the first African country to adopt Bitcoin as the legal tender, and the second state in the world, after El Salvador (Miato, 2023:38-41).  

3.2. Utility Tokens
Utility tokens are tokens traded within a given ecosystem, while they have no value outside it. They are paid for using the product or service itself. They do not provide holders with ownership rights, voting rights, or dividend rights. All token buyers have an expectation that the business venture (where they participate in the tokenization process) will lead to an increase in the value of the token and profits for them. Utility tokens do not represent any ownership or security rights, but merely rights of use. Therefore, they are not to be understood as an investment but rather as an instrument offering their holders access to services or products. A utility token is a “virtual voucher” intended to provide the holder with a functional benefit in the form of access to a network, with the option of later exchanging these tokens for products or services. These tokens usually have no connection to values outside of this specific ecosystem of the respective platform; therefore, they only have a limited, speculatively driven value.

- Utility tokens are commonly provided as
- means of payments within a network/ecosystem;
- methodology for governance and decision making.

Utility tokens are often referred to as ICO tokens because the ICO procedure is beyond their issuing. Utility tokens give incentive to the issuer to provide a better quality of the object of tokenization. Namely, the token ecosystem communicates with the broader framework and, depending on the quality of the network, increases or decreases value. For instance, a restaurant with 50 seats issues one token for each seat; the price of the token will rise/fall depending on the quality of the service.

3.3. Security Tokens
Unlike utility tokens of limited value applicable within a specific ecosystem, security tokens are associated with values from the non-digital world.

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12 As far as payment tokens or “cryptocurrencies” are concerned, it should be noted at this point that these can also be created and issued by central, public bodies or authorities. Central banks worldwide, including the ECB, are currently examining the introduction and use of a virtual currency, Central Bank Digital Currency (CBDC).

13 See more about ICO supra in part 2 of this Article.
and are also used outside of the narrow ecosystems defined by the offering start-ups (Hill, 2019).

In the case of security tokens, asset components with securities or equity-like properties are mapped to the digital blockchain through the process of tokenization. The idea behind this is that assets can be transferred more easily in this way. Security tokens are issued via security token offerings (STOs) and offered to the public, also known as “crowd” in technical jargon. Due to their specifics, STOs are also seen as an alternative to classic crowdfunding and crowd-investing because transactions can be carried out faster and more securely.

Security tokens tend to be less volatile (i.e. exposed to value and price fluctuations) than cryptocurrencies or utility tokens. This stability is due to the assets on which they are based, and which have a comparatively stable value. Therefore, security tokens are the right choice when it comes to digitally mapping and transferring securities and shares in companies on the blockchain. In contrast to traditional digital transmission, for example of stocks via traditional digital banking, transmission via blockchain has the potential to be significantly simpler and more secure. On the classic route via traditional banking and stock exchange business, a considerable amount of technical effort is required to meet a comparable security standard required for this type of transaction.

3.3.1. Asset-based Tokens

Asset-based tokens are a subtype of security tokens; the terms refers to the designation of all those tokens that can be linked to real economic goods. It is done by creating a “cryptographic analogy” with a traditional asset to increase the underlying liquidity of that asset.

Asset-based tokens thus have the potential to give illiquid assets and real economic goods the characteristics of highly liquid values, such as stocks or bonds. In principle, the assets that can be the subject of a tokenization process naturally include: real estate, precious metals, raw materials, company shares, works of art, etc. Assets such as real estate, company shares, precious metals or works of art cannot usually be sold without a considerable investment of time and money. Therefore, they are usually sold in large quantities (in bulk) or as a unit (real estate, art, vehicles) in order to keep the effort and costs of a transaction in relation to the goods transferred. The illiquidity of these goods also has advantages for investors: the returns are usually higher because it is also the investment time horizon in which the investors’ capital is tied up.
In connection with asset-based tokens, we should also mention the issue of “due diligence”, which can be integrated with this token form. It entails the examination of a person, a company, a product or a project from a legal, tax, financial or technical point of view. In this process, special consideration has to be given to the measures on the origin of funds, corruption, and prevention of money laundering, which are becoming increasingly important worldwide. All these verification mechanisms can be taken into account and built into asset-based tokens by using smart contracts. If these digitized assets are successfully and thus widely used, access by small and private investors to illiquid assets, capital goods or company shares could be greatly facilitated, given that the due diligence process is usually very complex. As they come with real value, asset-based tokens have the potential to add credibility to the more discredited ICOs.

There are several subtypes of asset-based tokens:

- **Stablecoins**: their price is pegged to fiat currency or commodity (e.g. the U.S. Dollar; stablecoins could also be pegged to the Mexican Peso, the Euro or gold);

- **Wrapped tokens**: their price is pegged to the price of other cryptocurrencies and tokens (examples: wrapped Bitcoin; wrapped Ethereum);

- **Non-Fungible Tokens (NFTs)** denote ownership of non-fungible assets, unique assets of limited quality (such as physical or digital art, tickets, and collectibles), which are valued differently based on their unique features and scarcity; thus, they are not interchangeable.

4. "Synhronization" issue

The synchronization of tokens and law must always be observed. The "synchronization issue" labels the contradiction between the logic of law and the logic of software; for example, if the token has already been transferred, this transfer cannot be subsequently deleted due to the immutability of a blockchain. The above position is in conflict with the canonical legal principle that successfully contested legal transaction is to be regarded as void from the outset. Invalidity of the contract does not automatically lead to the invalidity of the token transaction. The critical question is whether reverse processing is legally possible due to the immutability of a blockchain. It is argued that a token undergoes change in the course of transaction; this change is viewed in the transaction history. However, the change does not affect the claim for return. For example, if a car has a changed mileage which is regularly entered
in the registration certificate after the reverse transaction, such car is still the same car despite the described changes. The same shall be valid for tokens.

5. Conclusion

Digitalization is more than just a regulatory object: its effects change the form and structure of law, forming the new ontology of law. Tokens and tokenization are the examples of that process. Tokenization is based on a technology that is autonomous and insufficiently adapted to the law: it is revolutionary and disruptive. Thus, the regulation of tokens and tokenization requires a multidisciplinary approach, a blend (not only interaction) with technological and economy-driven considerations.

As tokens are newcomers in the legal field, “learn by sailing” principle applies to the process of developing appropriate legal framework. Given that tokenization is a vibrant and flexible phenomenon, the legal regulation shall combine the regulation and governance approach: the issues with clear legal profile, critical features and applicability criteria shall be regulated in the form of a statute; the issues which demand flexibility (as the principal attitude) shall be delegated for resolution to relevant government bodies/agencies. The regulation cannot be based to the regulatory analogies only: a fresh “out-of-the-box” approach is needed, including consideration of multidisciplinary elements (IT and economy) as constitutive parts of legal framework. No “Grand Design” approach is preferable; instead, the use of “bottom-up” methodology and cooperation with industry (“private regulation”) is more suitable.

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**SUMMARY**

Tokenization is based on a technology that is autonomous and insufficiently adapted to the law: it is revolutionary and disruptive. The disruption is caused by (at least) threefold perspectives of tokenization: technological, economic and legal one. Thus, the legal analysis and regulation of tokens and tokenization shall be part of a multidisciplinary approach including a blend (not only interaction) of legal, technological and economy-driven considerations. The balanced and blended approach is needed to provide most relevant answers to the issues raised by tokenization applied to different circumstances, values and subjects of tokenized transaction.

As tokens are newcomers in the legal field, “learn by sailing” principle applies to the process of developing appropriate legal framework. The regulation shall overcome the division and bridge the gap between law and technology (blockchain and smart contracts as technological tools beyond tokenization). The illustration of this task is the synchronization issue: this term denotes the existence of contradiction between the logic of law and the logic of software: for example,
if the token has already been transferred, this transfer cannot be subsequently deleted due to the immutability of a blockchain. The above position is in conflict with the canonical legal principle that successfully contested legal transaction is to be regarded as void from the outset. Invalidity of the contract does not automatically lead to the invalidity of the token transaction. The critical question is whether reverse processing is legally possible due to the immutability of a blockchain. In order to address this issue properly, it is not enough to have proper legal interpretation; a fresh “out-of-the-box” approach is needed, including the consideration of multidisciplinary elements (law, IT and economy) as constitutive parts of the legal framework. In addition, the use of “bottom-up” methodology and cooperation with industry (“private regulation”) is preferable to the “Grand Design” approach.
THE EFFECTS OF MONETARY AND FISCAL POLICIES ON ECONOMIC GROWTH: SOME IMPLICATIONS FOR POST-COVID-19

Abstract: The effectiveness of monetary and fiscal policy, as a topic that has been actualized in economic history among monetarists and Keynesians, has gained importance again today due to the consequences caused by the COVID-19 pandemic. Bearing in mind that there is disagreement in academic circles on whether fiscal or monetary policy should be given priority in stimulating the economic activity of a country, the paper examines their effects on economic growth. In order to determine the impact of monetary and fiscal policy on the economic growth of the Republic of Serbia, the statistical method of linear regression was implemented on a series of quarterly data for the period 2002–2022. The obtained results showed that fiscal policy, compared to monetary policy, is more effective in stimulating economic growth. Therefore, the final conclusion of the paper is that the government of the Republic of Serbia must pay more attention to increasing the efficiency of the fiscal policy instrument in the future.

Keywords: monetary policy, fiscal policy, economic growth, Republic of Serbia.

Introduction
The monetary and fiscal systems are the fundamental components of the financial system (Djurović Todorović, 2014). Therefore, the effectiveness of monetary and fiscal policy instruments is crucial for achieving economic growth. The Republic of Serbia’s economic activity is determined by effective monetary policy in conjunction with implemented fiscal policy, and vice
versa. Given that the effectiveness of monetary and fiscal policy was at the center of the debate between Keynesians and monetarists, this question remains open in academic circles even today. There are theorists who prioritize monetary policy, but the vast majority believe that fiscal policy has the greatest impact on economic development.

There is a significant amount of disagreement among economists regarding the role that money plays in determining the flow of economic processes (Mankiw & Taylor, 2007). This is due to the fact that some economists believe that money controls economic processes, while others believe that money is a factor that has no influence on those processes. "According to the views of inactive money, it is usually assumed that the amount of money is adjusted to the real needs of economic development" (Komazec, Ristić, 1992). In this view, "money is reduced to a passive element of the system." On the other hand, the concept that different instruments of fiscal policy have a potential to affect changes in the composition of the economy is not a novel one. The instruments of fiscal policy are beginning to receive an increasing amount of attention and importance in today’s modern economies. The question of the effect of fiscal policy on economic development is primarily reflected in the question of how to best mobilize the potential for accumulation.

Recognizing the complexity of effects of these policies, it is evident that monetary policy cannot produce results without fiscal policy. In other words, a monetary policy that is only partially managed is typically ineffective (Gali, 2008; Hoover, 2015). The coordination of monetary and fiscal policy for the purposes of stabilization and development is, therefore, of vital importance for any nation. However, achieving both economic stability and a high rate of economic growth at the same time is a very complex matter.

In response to the crisis induced by the COVID-19 pandemic, the Republic of Serbia activated its monetary and then fiscal policies. The government enacted a number of monetary and fiscal measures to combat the economic crisis. As the initial step, the National Bank of Serbia reduced the reference interest rate. Immediately following the monetary measures, a “range” of fiscal measures were implemented (Đordević, Đurović Todorović, Ristić Cakić, 2020).2 As the primary objective of monetary policy, price stability was then threatened. Among those responsible for monetary policy, the question remains: Is the central bank solely accountable for price stability?

The interaction between monetary and fiscal policy has often been modeled

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2 For more information, see: Đordević et al., 2020.
as a "non-cooperative game". The central bank and the government undoubtedly have their own priorities. However, the premise of their coordination is unquestionably the Pareto enhancement of a set of policies. In academia, for the last 30 years, priority has been given to fiscal policy. Fiscal policy is considered to have a more fundamental influence on prices. As a consequence of such an attitude, the interaction between monetary and fiscal policy became even more important. Therefore, a query arose among theorists: what kind of coordination of monetary and fiscal policy would be desirable? (Canzoneri Cumby, Diba, 2010).

The subject matter of research in this paper is the monetary and fiscal policy of the Republic of Serbia. The starting point in the research was the fact that there is still no consensus regarding the impact of monetary and fiscal policy on economic growth in developing countries, and particularly the fact that the Republic of Serbia lacks empirical analyses that test monetary and fiscal policy. The main goal of the research is to assess the impact of monetary and fiscal policy on economic growth in the Republic of Serbia. In particular, the research aims to assess trends in monetary and fiscal policy variables, assess their impact on economic growth, and make recommendations for further research. Therefore, two basic hypotheses are set forth:

- **H₁**: Monetary policy variables have a significant effect on economic growth;
- **H₂**: Fiscal policy variables have a significant effect on economic growth.

The paper is divided into four parts. In the first part, the author provides an overview of current research on the subject matter of this paper. In the second part, the effectiveness of monetary and fiscal policy in the Republic of Serbia in the last 20 years is reviewed. Based on quarterly data for the 2002–2022 period and relevant statistical methods, the third part presents the results of the research. In the conclusion, the author provides guidelines for the creators of monetary and fiscal policy, and suggestions for increasing the efficiency of their instruments.

1. Literature review

In the field of economics, one of the topics that has generated the greatest discussion and controversy is the effect that monetary and fiscal policies have on economic growth. The findings of the vast empirical literature that examines the relative effectiveness of fiscal and monetary policies and their influence on economic growth in both developed and developing countries are inconclusive. This is the case despite the fact that the studies were con-
ducted in both developed and developing nations.

“There is considerable debate over the effects of government fiscal policy on economic growth, especially in developing countries” (Engen, 1992: 1). The stance of the government’s fiscal policy did not shift until the global economic crisis of 1929 began to emerge on the horizon. Prior to that time, it had been unchanged. It can be noted that the significant fiscal policy developments stem from the major contribution to the greats economist John Maynard Keynes in his book *The General Theory of Jobs and Interests and Income*, which emphasized the weakness of market mechanisms alone in coping with economic problems, especially the Great Depression crisis, and the consequents need to follow Keynes views of state intervention in economic activity. Since that time, fiscal policy has assumed a more critical role and has become a major instrument of economic policy tools to guide the course of the economic entity and address what it is exposed to in the way of shocks and crises, in addition to their impact on the development of the economy, in particular in the countries that are growing (Hoover, 2015; Al-Kasasbeh, Alzghoul, Alghraibeh, 2022).

In addition, the direction of monetary policy may indirectly influence the direction of fiscal policy. For example, if the goal of monetary policy is to eliminate unneeded fluctuations in production, then the fiscal policy tools should be geared at achieving social goals and improving efficiency at the microeconomic level.

Andersen and Jordan (1968) conducted an empirical investigation of the links between measures of fiscal and monetary activities and overall expenditure in the United States. They applied regression analysis on quarterly data to get their findings. The GNP served as the primary measure of economic activity; money stock and monetary base served as measures of monetary actions; high employment budget surplus, high employment expenditure, and high employment receipt served as measures of fiscal actions. As a result, they came to the conclusion that monetary actions should be given more confidence than fiscal actions.

During the late 1960s and early 1980s, Batten and Hafer (1983) compared the relative impact of monetary policy and fiscal policy in the following countries: the United Kingdom (UK), the United States (US), Canada (Canada), Japan (Japan), and France (France). Their findings were supportive toward greater monetary policy over fiscal policy influence across countries. Ajisafe and Folorunso (2002) investigated a series of yearly data for the years 1970-1998 and came to the conclusion that monetary policy has a higher influence
on the level of economic activity in Nigeria than fiscal policy.

The economists argue on the influence that fiscal policy and monetary policy have on economic growth (Jawaid, Arif, Naemullah, 2010), but most contemporary economists agree that both of these strategies have some effect on the economy's level of stability. Al-Kasasbeh (2023) has conducted a literature review on the research that has been done on fiscal policies and economic growth. In his opinion, it is important to keep in mind that there are three different tools that can be used in fiscal policy. The first tool is government expenditures, the second tool is taxation, and the third tool is debts (Al-Kasasbeh, 2023: 16). In addition, recent research indicates that the link between fiscal policy and economic development is not crystal clear and constant. While there is sometimes a positive association between the two, there are also times when there may be a negative relationship between the two.

Baum and Koester (2011) studied quarterly German data from 1976 to 2009 by using threshold SVAR methodology (2002). The threshold model presented novel thinking on the effects of fiscal shocks on the stability of the economy. Noman & Khudri (2015) examine how changes in fiscal policy and monetary policy in Bangladesh have affected the country's overall economic development. The data were gathered on a yearly basis beginning in 1979–1980 and continuing through 2012–2013. The research used line diagrams, correlation matrices, and multiple linear regression models. The primary goals of their research was to assess the developments that have occurred in policy variables and investigate the effect that fiscal and monetary policies had on the expansion of the economy (GDP). According to the results, narrow money, wide money, the exchange rate, as well as government income and spending, all show a positive correlation with RGDP. This indicates that an increase of one unit in any of the aforementioned variables will lead to a rise of one unit in RGDP. On the other hand, the rate of inflation as well as the interest rate on deposits have a detrimental effect on RGDP.

According to Wu, Xu & Yan (2022) coordination of fiscal and monetary policy has the potential to boost market confidence and dampen economic volatility in the near term, while also laying the groundwork for structural changes in the medium and long term. Once there is a breakdown in the coordination of fiscal and monetary policy, it will either lead to a superposition of negative effects, causing progress to become stalled as a result of more regulation, or produce anarchy as a result of excessive decentralization. Both fiscal policy and monetary policy, which are crucial tools for short-term demand-side stability, have parallels and variations in the policy aims that they seek to
achieve. In the face of economic slack, if the fiscal authority adopts steps to boost production, it may be accompanied by rising debt. At the same time, expansionary monetary policies may lead to the danger of inflation (Wu, Xu & Yan, 2022:151).

The situation is further complicated, therefore, when it comes to developing countries that have to harmonize monetary and fiscal policies in the period after the COVID-19 crisis in order to minimize the consequences of the crisis. Karaman (2022) used daily data to investigate the impact that the Covid-19 pandemic and monetary policy measures adopted by the European Central Bank. The findings of the empirical study indicate that the Covid-19 shock significantly increased the sovereign risk in the countries that are a part of the periphery of the European Monetary Union, and the measures that have been taken by the monetary policy have been effective in easing financial conditions in these countries. On the other hand, understanding how changes in government income and expenditures affect overall production is a crucial component of any examination of fiscal policy, and this topic often comes to the fore after COVID-19 (Mertens & Ravn, 2010; Parker, 2011; Ramey & Zubairi, 2018).

Monetary and fiscal policy are very important for economic recovery. In light of the premise, the following issue naturally arises: to what extent have the government's monetary and fiscal policies been successful in fostering economic expansion? In a developing nation such as Serbia, the major objective of monetary and fiscal policy should be to encourage resource accumulation (in the form of investment) in both private and governmental sectors.

2. Factor output and economic growth in the Republic of Serbia

From the empirical studies that have been discussed so far, we may draw the conclusion that a variety of methods and variables are used in order to assess the effect that monetary and fiscal policies have on the economic activities. The factors are:

- interest rate;
- inflation rate;
- exchange rate;
- money supply;
- public revenues;
• public expenditures;
• government investments; and
• budget deficit.

In this part of the paper, the author will evaluate the relative effect of monetary and fiscal policies on economic activity in the Republic of Serbia, by using some of the variables and relevant methodology.

In the last 25 years, the trend of economic growth in the Republic of Serbia has been prominently cyclical. Chart 1 shows the trend of economic growth in the 1996–2022 period. The fact is that there is an inadequately managed economic policy and a mismatch between monetary and fiscal policy instruments in the Republic of Serbia. Although these are some of the reasons for such prominent cyclicity, conditions at a certain point in time, both economic and political, also play a significant role.

Bearing in mind the movement of GDP as a dependent variable, we can conclude that the highest growth was recorded in 2021. Namely, that is when the highest percentage of GDP was reached. It is necessary to emphasize that certain monetary and fiscal measures were implemented in 2020 in response to the crisis caused by the COVID-19 pandemic. Therefore, it can be considered that economic growth in 2021 was the result of those measures.

**Chart 1:** GDP trends in the Republic of Serbia (in millions of dinars), 1996–2022.
Note: The GDP amount is given in millions of dinars at constant prices from the previous year, reference year 2015.


In order to assess the effectiveness of applied monetary and fiscal policy instruments on economic growth in the Republic of Serbia, Chart 2 shows the movement of the gross domestic product in the 2019–2023 period

**Chart 2: GDP movement (in %), 2019–2023**


Negative GDP growth was recorded in 2020, due to the consequences caused by the COVID-19 pandemic. After this decline, the economy of the Republic of Serbia recorded an increase in gross domestic product in 2021. The last quarter of 2022, however, saw a significant reduction in the GDP growth rate. Therefore, the question of the effectiveness of implementing policies is raised.

The author of this paper further analyzed the indicators of monetary and fiscal policy shown in Table 1. Narrow money (M1), liquid assets (M2), broad money (M3) and the repo rate are used to measure the effect of monetary policy on economic growth, whereas government income and government expenditures are used to measure the impact of fiscal policy.
### Table 1: Factors of monetary and fiscal policy

<table>
<thead>
<tr>
<th>Code</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>Gross Domestic Product (in constant prices where 2015 is the reference year).</td>
</tr>
<tr>
<td>M1</td>
<td>Narrow money supply</td>
</tr>
<tr>
<td>M2</td>
<td>Liquid assets</td>
</tr>
<tr>
<td>M3</td>
<td>Broad money supply</td>
</tr>
<tr>
<td>R</td>
<td>Repo rate</td>
</tr>
<tr>
<td>GR</td>
<td>Government revenues</td>
</tr>
<tr>
<td>GE</td>
<td>Government expenditures</td>
</tr>
</tbody>
</table>

*Source: Author (2023)*

3. Testing the impact of monetary and fiscal policies on economic recovery: data and methodology

The empirical findings of his study were generated by using the SPSS Statistics 26 software for econometric data analysis and estimation. The data were collected from the websites of the National Bank of the Republic of Serbia and the Statistical Office of the Republic of Serbia. The estimated database includes quarterly data from the first quarter of 2002 through the fourth quarter of 2022.

In order to examine the influence of monetary and fiscal determinants on economic growth (GDP), the author used regression analysis.

The main idea was to model the dependence of GDP on monetary determinants by the following regression equation:

$$\ln(Y) = B_0 + B_1 \ln(M_1) + B_2 \ln(M_2) + B_3 \ln(M_3) + B_4(R)$$ (1)

or equivalently

$$Y = e^{B_0 + B_1 \ln(M_1) + B_2 \ln(M_2) + B_3 \ln(M_3) + B_4(R)}$$ (2)

where, $Y$ is GDP, $M_1$ is narrow money, $M_2$ is liquid assets ($M2$), $M_3$ is broad money ($M3$) and $R$ is repo rate.

Also, the author wanted to model the dependence of GDP on fiscal determinants by the following regression equation:

$$\ln(Y) = B_0 + B_1 \ln(GR) + B_2 \ln(GE)$$ (4)
or equivalently
\[ Y = e^{B_0 + B_1 \ln(GR) + B_2 \ln(GE)} \] (5)
where, \( Y \) is GDP, \( GR \) is government revenues, \( GE \) is government expenditures.

First, the author checked the individual influence of fiscal determinants on the GDP by simple regression models:
\[ \ln(Y) = B_0 + B_1 \ln(X) \] (6)
The following results were obtained (Table 2).

### Table 2: Regression analysis results

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
<th>R²</th>
<th>F</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>11.544</td>
<td>0.105</td>
<td>0.000</td>
<td>0.856</td>
<td>488.278</td>
<td>.000</td>
</tr>
<tr>
<td>lnM1</td>
<td>0.183</td>
<td>0.008</td>
<td>0.925</td>
<td>22.097</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>lnM2</td>
<td>0.188</td>
<td>0.007</td>
<td>0.946</td>
<td>26.354</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>lnM3</td>
<td>0.169</td>
<td>0.007</td>
<td>0.932</td>
<td>23.351</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Repo rate</td>
<td>-0.015</td>
<td>0.002</td>
<td>-0.725</td>
<td>-8.358</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>10.445</td>
<td>0.152</td>
<td>0.000</td>
<td>0.881</td>
<td>519.640</td>
<td>.000</td>
</tr>
<tr>
<td>lnP</td>
<td>0.294</td>
<td>0.013</td>
<td>0.939</td>
<td>22.796</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>lnR</td>
<td>0.294</td>
<td>0.014</td>
<td>0.925</td>
<td>20.296</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Note: \( \ln = \) natural logarithm.
Source: Author (2023)
Each of the determinants shows a significant impact on GDP. At the same time, each of them describes a high percentage of variance of the dependent variable (over 85%, except for the Repo rate, 52.6%).

But, due to the presence of a correlation between the determinants, models (1) and (4) showed poor performances. In order to optimize the suggested models, a stepwise optimization algorithm was used. The following results are obtained (Table 3).
Table 3: Regression analysis results of Model 1

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>R²</th>
<th>F</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>11.733</td>
<td>0.151</td>
<td>0.000</td>
<td>77.866</td>
<td>0.000</td>
<td>.770</td>
</tr>
<tr>
<td>lnM2</td>
<td>0.164</td>
<td>0.011</td>
<td>0.878</td>
<td>14.532</td>
<td>0.000</td>
<td>.000b</td>
</tr>
</tbody>
</table>

Source: Author (2023)

After optimization, only the variable lnM2 remained in the predictive model as the most important factor, while lnM1, lnM3, and the repo rate were excluded from the model as predictors that do not have a sufficiently good individual predictive potential.

Table 4: Regression analysis results of Model 2

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>R²</th>
<th>F</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>10.445</td>
<td>0.152</td>
<td>0.000</td>
<td>68.778</td>
<td>0.000</td>
<td>.881</td>
</tr>
<tr>
<td>lnP</td>
<td>0.294</td>
<td>0.013</td>
<td>0.939</td>
<td>22.796</td>
<td>0.000</td>
<td>.000b</td>
</tr>
</tbody>
</table>

Source: Author

In the second model after optimization, only the variable lnP remained in the predictive model as the most important factor, while lnR was excluded from the model as a predictor that does not have a sufficiently good individual predictive potential.

Tables 3 and 4 provide the regression analysis outcomes for the calculated regression models. The first model evaluates the effect of liquid assets on economic expansion. The fundamental assumption of the model is that the regression coefficient has a positive value. Based on the numbers in Table 4, it can be seen that the fundamental assumption is met since the regression coefficient value indicates a positive connection.

If we raise liquid assets by 1%, the GDP will grow by 0.16%. This model implies a positive relationship between monetary policy and economic development since it explains 77% of the variation in economic growth. The second model assesses the effect of government income on economic expansion. The fundamental assumption of the model is that the regression coefficient has a positive value. The coefficient of government revenues has a positive association with economic growth and is statistically significant, indicating that a
1% rise in government revenues would result in a 0.294% increase in GDP. This model's variables account for 88% of the variance in economic growth.

4. Conclusion

The findings of the regression analysis point to the existence of a long-term connection between the variables of monetary and fiscal policy and GDP. The regression models demonstrate that the variable representing monetary policy (M2) has a favorable impact on the expansion of the economy. Therefore, liquid assets (M2) play a significant role due to the stimulating impact they have on the expansion of the economy. In terms of the factors that pertain to fiscal policy, the level of revenue collected by the government is statistically significant. The findings suggest without a doubt that, in comparison to monetary policy, the effectiveness of the fiscal policy in boosting the economy of Serbia is considerably higher. These results may be partially explained by the unsatisfactory level of coordination that exists between monetary and fiscal policymakers. Monetary and fiscal policymakers will be faced with a number of challenges, particularly when considering the achievement of macroeconomic stability and economic growth in the wake of the Covid crisis.

As a result, throughout the subsequent time period, the fiscal policy need to get a particular amount of focus in order to improve its effectiveness.

References


Canzoneri, M., Cumby, R., & Diba, B. (2010). The interaction between monetary and fiscal policy. *Handbook of monetary economics, 3*, 935-999.


Summary

The Republic of Serbia’s economic activity depends on effective monetary policy in conjunction with successfully implemented fiscal policy, both of which are necessary for economic growth. The coordination of monetary and fiscal policy for the purposes of stabilization and development is of vital importance for any nation. In response to the COVID-19 pandemic, the Republic of Serbia activated its monetary and then fiscal policies. As the initial step, the National Bank of Serbia reducing the reference interest rate.

The subject matter of this research is the monetary and fiscal policy of the Republic of Serbia. The main goal of the research is to assess the impact of monetary and fiscal policy on economic growth in the Republic of Serbia. Two basic hypotheses are set forth in the paper: H$_1$: Monetary policy variables have a significant effect on economic growth; H$_2$: Fiscal policy variables have a significant effect on economic growth. The research is divided into three main parts: an overview of current research, the effectiveness of monetary and fiscal policy in the last 20 years, and the results of the research.

It is evident that monetary policy cannot produce results without fiscal policy, and that conditions at a certain point in time, both economic and political, also play a significant role. Negative GDP growth was recorded in 2020 due to the consequences caused by the COVID-19 pandemic. After this decline, the economy of the Republic of Serbia recorded an increase in gross domestic product (GDP) in 2021, but the last quarter of 2022 saw a significant reduction in the GDP growth rate. The estimated database includes quarterly data from the first quarter of 2002 through the fourth quarter of 2022. Data was collected from the National Bank of the Republic of Serbia and the Statistical Office of the Republic of Serbia, and the estimated database includes quarterly data from the first quarter of 2002 through the fourth quarter of 2022. Narrow money (M1), liquid assets (M2), broad money (M3), and the repo rate were used to measure the effect of monetary policy on economic growth. Government income and government expenditures are used to measure the impact of fiscal policy. This study used SPSS Statistics 26 software to measure the effect of monetary and fiscal policy on economic growth.

The results are as follows: if we raise M2 by 1%, the GDP will grow by 0.16%. This model implies a positive relationship between monetary policy and economic
development since it explains 77% of the variation in economic growth. The second model assesses the effect of government income on economic expansion. The fundamental assumption of the model is that the regression coefficient has a positive value. The coefficient of government revenues has a positive association with economic growth and is statistically significant, indicating that a 1% rise in government revenues would result in a 0.294% increase in GDP. This model's variables account for 88% of the variance in economic growth. The findings indisputably suggest that, in comparison to monetary policy, the effectiveness of fiscal policy in boosting the economy of Serbia is considerably higher.
INDEPENDENT CENTRAL BANK BETWEEN PRICE AND FINANCIAL STABILITY

Abstract: The primary objective of an independent central bank is price stability, as well as financial stability in broader sense. For a long time, it was believed that the achievement of price stability implies financial stability. The global financial crisis of 2007/2008 confuted such a belief. During and after the crisis, the responsibility for financial instability was transferred to central banks. The question is not only of theoretical, but also of practical importance. Unlike price stability, financial stability is not defined and is very complex. The role of the central bank is extremely important for preservation of financial stability and fight against the financial crisis, because it provides the necessary liquidity when panic occurs. That is its natural role. Effective supervision and regulation play an important role in the fight for financial stability. All of the above motivated the author to choose this topic.

Keywords: independent central bank, price stability, financial stability, financial crisis.

1. Introductory notes
The central bank is the supreme monetary institution in a sovereign state. It is the bank of banks and the lender of the last resort. Its role is extremely important for the normal functioning of the economy. The central bank is a macroeconomic entity which should ensure, together with commercial banks, both internal and external liquidity of the economy (Vacić, 1988: 266; Vukadin, 2003: 199), which means that it has very important macroeconomic tasks. It is responsible for conducting monetary policy and foreign exchange policy. It has a monopoly, i.e. the exclusive right to issue money,

1Monetary policy may have an anti-cyclical and stabilizing effect. Stabilization can be based on monetary policy, but it must be supplemented by others. Fiscal policy also plays an important role (Ćirović, 1982: 17).
high-powered money, which sets it apart from other institutions. It manages foreign exchange reserves, arranges and controls payment transactions in the country and abroad, performs certain tasks for the state. The central bank is an institution which does not ensue from the election process; thus, it is supposed to be characterized by transparency\(^2\), and responsibility towards those who are legitimately elected by the voters (Cukierman, 2007: 387). The most important goal of the central bank is to ensure price stability. Without questioning this goal, the central bank contributes to preserving and strengthening the stability of the financial system and supports the implementation of the government’s economic policy. When required by specific circumstances, the central bank is the lender of the last resort (LoR).\(^3\) In normal times, it should be a dam which limits the abuse of the state's financial power (Goodhart, 2010: 1).

The first central banks were established more than three and a half centuries ago.\(^4\) With the evolution of central banking, the functions and instruments used by central banks kept changing. The changes were influenced by the macroeconomic environment and leading economic theories (Fabris, 2006: 35). The central bank used to finance wars, perform commercial activities, and act as a lender of the last resort. Without questioning the primary goal, it supported economic growth and full employment. Maintaining both the internal and external value of the national currency used to be the main task of central banks, although its meaning has changed over time (Capie, Fischer, Goodhart, Schnadt, 1994: 1). Maintaining the value of the national currency was difficult in situations where the state, i.e. the government required the central bank to provide it with cheap financing, especially in case of imminent war danger, and during a war. During the gold standard, the value of

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\(^2\)With greater independence and autonomy, central banks have become more transparent, and their accountability has increased. Although there are several definitions of transparency, there is no consensus on a single definition. There is political, economic, procedural, policy-related, decision-making and operational transparency (Crowe, Meade, 2008: 763).

\(^3\)Central banks performed the role of a lender of the last resort in the 19th century, during the Victorian financial crises when it was very important to ensure liquidity (Kuttner, 2010: 108). In his famous book Lombard Street, Walter Bagehot gives advice, i.e. the rules for creditors in the last instance: to lend at a high interest rate freely, to lend on the basis of quality bank securities; to lend to solvent banks. Analyzing how the Bank of England behaved during various 19th century crises, Bagehot discovered that it did not respect these rules, that its conduct was inconsistent, and that it had to recognize the importance of ensuring liquidity in times of crisis (Bagehot, 1873:97-98). We should bear in mind that the moment when central banks began to perform the role of the last-resort lenders (from the mid-19th century) is the moment of the creation of central banks in the true sense (Fabris, 2006: 34).

\(^4\)As a reminder, the first central bank (Riks bank) was founded in Sweden in 1668.
the national currency on the one hand and the value of gold on the other were in a fixed relation. The achievement of development and stabilization goals became very important after the Great Economic Crisis and the Second World War. During the 1960s, the central bank influenced the increase in full-time employment by conducting an expansive monetary policy. Monetary and fiscal policymakers were able to choose different combinations of inflation and unemployment by looking at the Phillips curve. The main goal of central banks then was to achieve the optimal relationship (settlement) between inflation and unemployment reduction (Fabris, 2006: 36). A higher inflation rate implied a decrease of unemployment and economic growth.

Over time, price stability has become the main goal. Since the 1980s, there has been a growing trend of central banks independence. The existence of an independent central bank is very important in countries where the authority to decide on fiscal spending is relatively decentralized (Cukierman, 1993: 289).

At the time of a financial crisis, the central bank is said to have a comparative advantage over numerous other subjects of economic policy. Then, the need for liquidity grows, which is melted away by the financial crisis. Hence, the role of the central bank is irreplaceable because it provides the necessary liquidity in times of panic (Cukierman, 2013:7) by acting as a lender of the last resort. When there are no other sources of credit and there is no other creditor able or willing to lend, in amount sufficient to prevent or stop a financial panic, then the central bank provides what is needed5. However, the negative consequence of this role of the last-resort creditor is that it can lead to the emergence of moral hazard. It means that banks and other financial institutions that receive help from the central bank feel protected and consciously take on more risk in their business because they know they will get help from the central bank.

The global financial crisis of 2007/20086 and the new macroeconomic environment presented many central banks, as well as many governments, with new tasks and new challenges (Borio, 2019: 2). The crisis engendered many challenges: the independence of central banks, the conduct of monetary

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5 In the context of the analysis and eventual reform of the “international financial architecture” aimed at reducing global financial instability, Stanley Fischer considered the possibility of introducing an international lender of the last resort even though that institution would not be able to issue money. These considerations were preceded by the collapse of the American hedge fund Long-Term Capital Management in 1998, which caused great danger and threat to many other financial institutions (Fisher, 1999: 94,96; Rogoff, 1999: 21).

6 The subprime mortgage crisis spread from the USA to Europe; in the Eurozone, it had some specific features due to increased public (state) debts and high deficits.
policy and the application of unconventional instruments, responsibility for financial instability (in the EMU and the responsibility of the ECB for the survival of the euro), the relationship between price and financial stability, the relationship between monetary and fiscal policy, etc. The crisis also contributed to the cooperation and agreements of central banks in order to ensure stability on the global level. That is why the academic public wondered whether the so-called pre-crisis model of central banking is sustainable in new conditions (Borio, 2014:191), or whether some adjustments are necessary (“a new compass to sail in largely uncharted waters” (Borio, 2011: 1)) or maybe even a radical change. Hence, there is the question of whether a new (fourth) era in the development of central banking has begun.\textsuperscript{8}

The preceding questions and dilemmas are serious. Addressing all of them would go beyond the scope of this paper. Therefore, considering that the responsibility for financial instability during the financial crisis shifted to central banks, we will focus only on the relationship between price stability and financial stability.

2. Independence, price stability and financial stability

The independence of the central bank is a reflection of the public legitimacy that it has gained through its credibility, performance of its tasks, successful management of monetary policy, achievement of set goals, transparency and responsibility. Even though independence is proclaimed and secured by law, it can be taken away or significantly reduced. Legal independence does not imply actual independence. Yet, this independence of the central bank does not mean that the central bank will always be infallible and that it is sufficient for its success to be free from political interference and other inappropriate influences (Marcel, 2021: 17).

Until 2007, central banks enjoyed high credibility thanks to the successful fight against inflation in the previous period. There was non-inflationary...
economic growth and there were weak macroeconomic oscillations. That is why the period from 1985 to 2007 is called the Great Moderation in the economies of developed countries. Conventional monetary policy implied the use of the real interest rate as the main instrument, while inflation targeting was applied as a strategy. The central bank has been fighting bubbles that are pushing current inflation away from the targeting. Price stability comes along with an independent central bank (which implies that it has freedom in conducting monetary policy and that it is free from any political influences). It is one of the necessary conditions for a balanced and non-inflationary development of the economy (Alesina, Summers, 1993: 152; Jakšić, 2001: 132). In addition to being free from political influences, the independence of the central bank also refers to freedom in relation to financial markets because the basis of the functioning of financial markets are private interests that can be opposed to the public interest (Goodhart, Lastra, 2018: 59). The central bank is an institution which must work in the public interest.

Until the 2007/2008 crisis, it was assumed that achieving and maintaining price stability also means achieving financial stability, which unfortunately turned out not to be true in practice. Since then, financial stability has been relegated to the background. Little attention has been paid to systemic financial risk. Unlike price stability, which is the primary goal of an independent central bank and which is clearly defined, financial stability is a more complex term that is more difficult to define.

The pre-crisis model of central banking is characterized by independence, price stability, and an appropriate monetary policy strategy. This implied an inflation targeting strategy. It was applied for the first time in New Zealand in 1990, and was later adopted by many other countries (Canada, Australia, Great Britain, Sweden, Finland, etc.). This strategy was also accepted by the ECB (not under that name) but in a somewhat specific variant called the stability-oriented monetary policy strategy, which combines the monetary aggregate M3 on the one hand and the so-called price movement assessment, on the other hand, which resembles inflation targeting (Golubović, 2007: 95).

2.1. Price stability

In the independent central bank model, price stability is singled out as the most important goal for several reasons. First, with the abolition of the gold standard...
standard, there was poor control over price growth, i.e. over inflation, until control was given to an independent central bank whose primary task is price stability (Papadia, Välimäki, 2018: 2). Shifting the Phillips curve towards a less desirable inflation-unemployment relationship (i.e. when higher inflation is accepted in economic policy in order to achieve a lower unemployment rate) is another reason why price stability is singled out as a primary goal (Papadia, Välimäki, 2018: 22). The fact that unstable prices can threaten economic growth is another reason why price stability has been singled out as the primary goal of an independent central bank.

By singling out price stability as a primary goal, the legislative and executive authorities, as well as the public, could more efficiently control the achievement of this goal by the central bank than it could be done if the central bank had more goals of the same rank\(^1\) (Golubović, 2018: 73). If the central bank has multiple goals, it is easier for the central bank to change its policy than when it has only one goal. On the other hand, if the goals are not ranked, it is more complicated to raise the question of the central bank responsibilities (Goodhart, Lastra, 2018: 55).

Harmonized index consumer price (HICP), designed by the Eurostat and the national statistical institute in the Euro-zone countries, is used to define price stability. The ECB defines price stability as HICP growth of up to 2%. The defined price growth range or target is 0-2%. In order to maintain this

\(^{1}\)There are two central banking models: the Anglo-Saxon model and the German model.

In the Anglo-Saxon model, the central bank should achieve three stated goals: price stability, financial stability and high employment. All these goals are equal and none has priority over the other (De Graauwe, 2004: 7). In this model, the central bank is characterized by dependence on the executive power (political dependence). This kind of institutional design implies that the most important decisions in the domain of monetary policy are made by the government, i.e. the Minister of Finance. In such a constellation of relations, the realization of price stability can be called into question. The literature states that until 1997 the Bank of England was one of the most dependent central banks in the world. It could not decide on the increase and decrease of interest rates. After the political changes in 1997, the situation changed, but still there was no complete instrumental independence (Mishkin, 2006: 349).

In addition to the Bank of England, the central banks of Australia, France, Italy, Belgium, the Netherlands, and Sweden also had a greater degree of dependence at the end of the 1980s. It has been established in many studies that a lower inflation rate is a characteristic of countries with more independent central banks (Bade, Parkin, 1988: 4, 25). In the German central banking model, price stability is the primary goal. Central banks organized according to this model (e.g. Bundesbank, ECB, etc.) are independent in relation to the executive power and they make independent decisions regarding the primary goal. Neither economic growth and development nor high employment rate are the focus of the central bank; they are both achieved primarily through the action of fiscal, i.e. budget policy. The central bank can help the realization of these goals as long as it does not jeopardize its primary goal, price stability.
price stability, the medium-term inflation rate should be below or close to 2%. Hence, price stability is explicitly defined as a goal. It is much more clearly defined for subjects, i.e. central banks that take measures to achieve this goal, which is not the case with financial stability. Financial stability was ranked somewhat lower, not only in relation to price stability but also in relation to maintaining maximum employment (Papadia, Välimäki, 2018: 67).

However, it should be emphasized that after the crisis it became clear that low and stable inflation cannot be a guarantee of macroeconomic stability (Borio, 2011: 3). Low interest rates are not enough to pull economies out of crises, or to avoid their huge costs.

Price and financial stability are characterized by a different time horizon, i.e. temporal inconsistency (Smets, 2014: 292). Namely, monetary stability is usually projected for a shorter period (2-3 years), which usually coincides with the duration of the economic cycle. On the other hand, risks accumulate in the economy for a longer period, creating financial cycles, which can last several economic cycles. In order to overcome this problem, the proposed solution is to prolong price stability, i.e. to project it for a longer period (Criste, Lupu, 2014: 224).

2.2. Financial stability

In the pre-crisis period, it was expected that financial stability would be achieved by maintaining the price stability (Bordo, Wheelock, 1998: 41; Cukierman, 2007: 368). Before the global financial crisis\footnote{Financial instability became particularly dangerous after the collapse of Lehman Brothers in September 2008. There were several causes: subprime loans in the USA and the discovery of Greece’s large budget deficit in Europe, as well as the low profitability of banks during the crisis. The financial crisis affected the real economy by increasing the cost of borrowing from banks. These events had an impact on the monetary policy transmission mechanism, i.e. channels through which monetary policy affects the real economy.}, the issue of financial stability was not given enough attention; nor was it explicitly explained what was meant by that term and how the central bank should treat it (Papadia, Välimäki, 2018: 65). The concept of financial stability is extremely important because it is a goal of public policy; thus, defining something that is a goal of public policy is a matter of great importance (Allen, Wood, 2006: 153). However, there is no universally accepted definition of financial stability. Besides, financial stability is variable.

According to the ECB, financial stability is “a state in which the financial system is able to withstand shocks, disturbances and crises, to maintain...
itself when financial imbalances occur, thereby reducing the likelihood of disruptions in the financial intermediation process, with the fact that disruptions can be so severe to limit the allocation of savings towards profitable investments” (ECB, 2007: 9). In an effort to find a definition of financial stability, some authors tried to define the concept of financial instability and systemic risk. Thus, Mishkin says that "financial instability occurs when shocks in the financial system disrupt information flows, so the financial system cannot perform its task of channeling (directing) funds to productive investment opportunities" (Mishkin, 1999: 6). A stable financial system will provide funds for crediting the economy and the population, while an unstable one will not. The lack of lending resources contributes to a decrease in investments, a decrease in consumption, and thus a decrease in overall economic activity. Too severe financial instability can result in the collapse of the financial system and the emergence of a financial crisis.

Schinasi defines financial stability as the ability of the financial system to facilitate and improve economic processes, manage risks and absorb shocks (Schinasi, 2006: 77). The financial system is stable when it performs its basic functions. This means that financial stability is a situation in which the financial system is capable of efficient resource allocation from savers to investors, but also resource allocation in general. The financial system is stable if it is possible to assess risks and manage them rationally, but also when the system is capable of absorbing financial shocks and shocks coming from the real economy (Schinasi, 2006: 82). In the broadest sense, Schinasi says that financial stability is a state of affairs in which the economy's mechanisms for determining prices, distributing and managing financial risks work well enough to contribute to favorable effects on the economy as a whole (Schinasi, 2006: 83).

In order to define financial stability, there have been attempts to determine the desirable elements that a good definition of financial stability should contain: 1) such a definition should include the term well-being because instability leads to loss of well-being; 2) financial stability should be visible so that those in charge of its realization can know whether they have succeeded or not in achieving that goal; 3) it should be subject to control or influence of public authorities; 4) it should be a property/characteristic of a clearly defined and politically very important entity, which is usually the nation state; 5) it should refer not only to financial institutions but also to

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12The literature states that the term financial instability was used by the Bank of England in 1994 to indicate its goals that had nothing to do with the efficient functioning of the financial system.
non-financial ones; 6) financial stability should not be rigorous and stigmatize any change under the pretext of instability because it should respect the fact that the economy and financial structures change and develop as the economy grows and develops (Allen, Wood, 2006: 154).

It should be emphasized that a specific event (shock) by itself does not bring the system into a state of instability. A financially stable system absorbs “shocks” and does not amplify them. On the other hand, it is also possible for the economy to act stably even though it amplifies shocks. It is believed that financial stability cannot be fully observed because it is not possible to predict how an economy will react to every possible shock. It is only possible to follow the key characteristics of the economy and draw certain conclusions, which certainly entails a risk that such conclusions will not always provide enough information (Allen, Wood, 2006: 155).

Maintaining financial stability is important for maintaining the overall economic stability. Central banks encountered the global financial crisis in 2007 with an unclear role and unclear responsibility in terms of financial stability, without adequate support at the macro level. Macroprudential policy measures began to be implemented after the great global crisis in order to prevent future crises (Papadia, Välimäki, 2018: 75-76). Financial instability during the crisis showed that the financial system was alive and dynamic, that it carried and was exposed to changes, together with the economic system as a whole; thus, due to all the changes that occurred over time, financial stability became questionable and required special attention.

The issue of financial instability was addressed by Minsky (1970), who underscored two particularly important issues: how financial institutions get into problems and how the problems of a financial institution become systemic, i.e. how they escalate and spread to the entire financial system (Minsky, 1970: 52). Minsky claims that the structural characteristics of the financial system change during periods of prolonged expansion and that these changes contribute to reducing the economic system stability. Given the fact that central banks are very important entities in times of crisis. Minsky points out that they have at least two roles in such times: 1) stabilization in order to stimulate growth together with the government; and 2) to act as the lender of the

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13 For example, the European Systemic Risk Board announced that new prudential rules for the EU banking system would come into force on January 1, 2014. They were provided by the member states on a common legal basis.

14 Contrary to the fragmentary interest in financial stability (instability as an episode of the crisis) and the factors affecting it, Kindleberger (1978), Minsky (1986), Reinhart and Rogoff (2009) tackled this issue in more detail.
last resort\textsuperscript{15}. The bottom line is that these two roles can be in conflict when the central bank seeks to restore order and achieve respective goals. For example, if the central bank undertakes some activities aimed at stabilizing the economy but at the same time these activities threaten the solvency of financial institutions, the central bank will have to abandon such activities (Minsky, 1970: 80). If a crisis occurs, the central bank will have to deviate from any restrictions.\textsuperscript{16}

In his work \textit{Stabilizing an unstable economy} (1986), Minsky points out to the possibility of a subprime credit crisis (which did happen in the USA). He explains the seriousness of financial crises and the possibility of their recurrence using the example of the American economy, warning of its tendency towards fluctuations. He emphasizes the need to adjust institutions in order to resolve and rehabilitate crises and stabilize the economy. He notes that the stability that occurred after World War II was not due to the market mechanism but due to important institutions which were assigned the epithet \textit{big (big government, big bank)}.

Minsky draws attention to the fact that periods of stability in modern capitalism are transitory and that the market system of relations in the financial economy leads to instability (Minsky, 1986: ix). Instability is inherent in modern economies. Keynes determined two very important features of capitalism, i.e. two flaws - chronic unemployment and large inequalities, and Minsky added instability as a result of the development of financial capitalism (Minsky, 1986: 112, 315). For Minsky, periods of stability are only temporary, i.e. transitory. There is no constant stability due to changing behavior. Institutions must adapt to changed circumstances. As he well understood the securitization of residential mortgages, he predicted its “explosion”, which led to the crisis of 2007. He observed it in the light of the globalization of finance and considered that asset-backed securities had an open passage across national borders.\textsuperscript{17}

\textsuperscript{15}Thus, if the central bank maintains price stability, there will be less need to act as a lender of the last resort.

\textsuperscript{16}Commenting on the chronology of mild and deep depressions, presented by Milton Friedman and Anna Schwartz in their paper \textit{Money and Business Cycles} (1965), Minsky concludes that deep and severe depressions are associated with financial crises, while mild depressions are not. He claims that mild and severe depressions are “quite different types of beasts and the differences in length and depth are due to the absence or occurrence of a financial panic.” (Minsky, 1970: 1).

\textsuperscript{17}Minsky noted that foreign investors who did not have direct access to American homes would get it through the purchase of securitized mortgage-backed securities. The post-World War II depression-free state created a global glut in the demand for money. Asset-backed
It had long been assumed that there was a positive relationship between price and financial stability, i.e. that price stability contributed to maintaining financial stability. Thus, the financial instability and disruption, and ultimately crisis, were believed to have been caused by fluctuations in the general price level. That is why the relationship between price and financial stability is not only a theoretical issue but also the issue of particular practical importance. The so-called "conventional wisdom" about a positive relationship between price and financial stability (Anna Schwartz, 1995) prevailed for long time. Swartz pointed out that this connection exists both on a micro and a macro level. However, the global financial crisis cast doubt on this positive relationship, and empirical research has shown its unsustainability (Blot, Creel, Hubert, Saraceno, 2014). The problem seems more difficult because there is no precise definition of financial stability, and besides, financial stability is not targeted (Criste, Lupu, 2014: 222). Therefore, financial stability is much more complex than price stability (Papadia, Välimäki, 2018: 66). Price stability can lead to financial instability in a situation where there are low interest rates that attract speculative investments, i.e. taking over high-risk jobs in order to achieve high profits. Financial instability can arise even in situations of low inflation rate. Thus, there are opinions that financial stability should be defined as a goal independent of price stability (Blot, Creel, Hubert, Saraceno, 2014: 11).

Some authors state that the provision of financial stability should perhaps be transferred to another institution, not to the central bank. Nevertheless, Goodhart considers that this should not be done because, when a crisis occurs, central banks are the institutions that provide liquidity (Goodhart, in: Papadia, Välimäki, 2018: vi), which is one of their basic tasks. On the other hand, if central banks were only concerned with price stability and not financial stability, this could result in instability not only of the financial system but also of the economy as a whole.

The central banks' responsibility for financial instability is justified by their extremely natural role in the monetary and financial system and their obligation to act in the public interest. The central bank provides the necessary liquidity because it is the lender of the last resort, it controls and is responsible for payment transactions. Finally, being part of the financial system it is naturally interested in ensuring a sound financial system and a stable financial market (Schinasi, 2006: 137). Central banks are very powerful securities with certain ratings obtained from rating agencies (denominated in dollars) would become attractive to foreign investors. Minsky believed that one should not be surprised when problems with subprime mortgages spread rapidly around the world.
financial institutions that can act quickly and decisively in times of crisis, have the necessary instruments and expertise (Rogoff, 2021: 38). Yet, there are opinions that it may be more difficult for the central bank to control the maintenance of financial stability than to control inflation targeting (Goodhart, Lastra, 2018: 55).

The question of the relationship between price and financial stability has become one of the most important issues of monetary policy today. It is certain that price stability and production stability cannot ensure financial stability, and low interest rates can be an incentive to take a large risk (Mishkin, 2012: 6). The 2007/2008 global crisis drew the attention of central banks to the fact that they must take into account not only price stability but financial stability, and maintain a balance between them while prioritizing price stability (Criste, Lupu, 2014: 225). Price stability should be the primary goal in order to avoid the so-called fiscal dominance, i.e. a situation when the budget deficit is out of control, when the central bank is getting weak and cannot reduce inflation, which can lead to undermining its credibility (Mishkin, 2012: 34; Smets, 2014: 292). As a rule, fiscal crises (i.e. increased government borrowing) arise after the financial crisis.

The challenge for central banks is not only to ensure a balance between price stability and financial stability but also to preserve credibility and independence in a situation when they undertake various measures and instruments to recover the financial system. Leastwise theoretically, there is a concern about the increase in the balance sheet of central banks as a result of the use of quantitative easing because during the crisis they ran out of maneuver space to act and conduct monetary policy. Hence, price stability can be threatened. The risk of such activities undermines the independence and credibility of central banks, and the expansion of responsibility brings it into the political arena.

The responsibility for financial stability after the 2007/2008 global crisis fell on central banks. In Europe, the crisis has turned into a sovereign debt crisis. It started in 2010 and flared up in 2011, spreading to Spain and Italy. A vicious circle was created between the banking system and the public finances of many countries, which further increased instability and called into question the survival of the Euro. Solving these problems required bet-

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18This instrument leads to the expansionary effect of monetary policy (Labudović Stanković, 2021: 415).
19One of the answers to this crisis in the Eurozone is the creation of a European Banking Union.
ter supervision of banks. In the EU, supervision at the national level only was not enough (Papadia, Välimäki, 2018: 234). National supervision and the desire for greater integration were contradictory. Another point for consideration was the creation of a single supervisor in the entire Eurozone. The national supervisory authorities did not have an effective instrument that would operate outside the national framework. A joint supervisory body was necessary, and the role has been assigned to the ECB.

As a reflection of the great concern for financial stability and in order to prevent future crises, macroprudential policy became stricter in many countries after the global financial crisis of 2007. In essence, states (governments) recognized the need to allow supervisory authorities more space and more tools to defend the financial system. In addition to stricter macroprudential policy, the microprudential policy is also necessary, as well as risk minimization in the activities of the entire financial sector (Golubović, 2018: 75). The concrete measures to prevent future crises include introducing liquidity coverage ratios, increasing capital requirements, creating new bodies for macroprudential control (Reis, 2021: 167). In England, the Financial Services Act 2012 introduced financial stability as a goal that should be achieved by the Bank of England. The Prudential Regulatory Authority and the Financial Policy Committee were created and they have a variety of micro- and macro-prudential tools at their disposal. The EU also reacted.

In the context of financial stability and the role of the ECB, it is important to mention EU Council Regulation 1024/2013, which stipulated that financial stability is one of the objectives of prudential supervision. The Regulation assigns certain macroprudential tasks to the ECB, but not general competence related to financial stability. The Regulation created the Single Supervisory Mechanism (SSM) for the banking system in the EU. The SSM is a system of financial supervision consisting of the ECB and the national supervisory authorities of the member states. The main goals of the SSM are to make the

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20 Both at the national and the supranational level (when it comes to the monetary union), it is natural that the supervisory authority is the central bank because it is a lender of the last resort, provides liquidity, and has an important stabilizing role in the economy; also, the independent central bank as the supreme monetary institution has the capacity to take all necessary measures and employ the best experts (Garciano, Lastra, 2010: 609-610).

21 Article 3, para. 2 of the Law on the National Bank of Serbia stipulates that the National Bank of Serbia, without questioning the achievement of its main objective, contributes to preserving and strengthening the stability of the financial system.

banking system stronger and more stable, to increase integration in the EU, and to ensure constant supervision because the 2007/2008 crisis showed how insufficiently integrated the EU financial system was, which may ultimately threaten the Euro and the internal market. Hence, better integration of bank supervision is extremely important. In addition, the Single Resolution Mechanism (SRM) also plays an important role. The main task of the SRM is to effectively solve the problems of banks affected by the crisis with minimal costs.

Price stability still remains the primary objective of the ECB. Although it has gained a more active role in terms of financial stability, the ECB is not primarily responsible for financial stability. It has to “contribute to the smooth conduct of policies pursued by the competent authorities relating to prudential supervision of credit institutions and the stability of the financial system.” (Ioannidis, Murphy Hlaskova, Zilioli, 2021: 20). Moreover, financial stability could be a means of achieving price stability. It means that financial stability is not defined as a goal but as a means to achieve the primary goal (Ioannidis, Murphy Hlaskova, Zilioli, 2021: 20). However, as it has not been specified which instruments the ECB will use in exercising its powers regarding financial stability, it is assumed that the ECB will have an advisory function and common/instruments at its disposal.

3. Conclusion

A healthy financial system and maintaining financial stability are extremely important. States use different mechanisms for this. This is how the role of the central bank in times of crisis should be understood, although it cannot be the only one responsible for financial instability, as it does not control all of its aspects. Central bank assistance should not be interpreted in terms of loss of independence, loss of the boundary between monetary and fiscal policy, nor should it be reduced to a theoretical debate between neoliberalism and Keynesianism. It should be understood in the context of the need to maintain a healthy financial system, that the central bank is the lender of last resort and that its function has an exceptional role in saving the financial system. Consequently, the central bank also protects the public interest. Both theory and practice teach us that the market alone is not capable of pulling the economy out of the crisis, but only the state with the power of its authority in cooperation with the central bank. The role of the central bank to preserve the financial system and stability is its natural role, even when financial stability is not proclaimed exclusively as its goal. Crises have
imposed the need for central banks to behave in such manner (as a creditor and as a manager in a crisis).

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**Legal acts**


**Summary**

The primary objective of an independent central bank is price stability. Unlike price stability, financial stability is not explicitly designated as a goal. Yet, during and after the 2007/2008 global financial crisis the responsibility for financial instability was transferred to central banks. The role of the central bank is extremely important for preserving financial stability. It is its natural role to provide the necessary liquidity in times of financial crisis. Thus, the role of the central bank in ensuring price and financial stability has both theoretical and practical importance.

After briefly presenting the role of the central bank in the financial system, the author discusses the challenges faced by the central banks during and after the 2007-2008 global financial crisis. The central part of the paper focuses on price stability and financial stability, where the author discusses the theoretical and practical importance of financial stability, as well as the role of the central bank in preserving financial stability. The ECB does not have a general competence in relation to financial stability but it is assigned certain macroprudential tasks. The ECB has become a joint supervisory body for the Eurozone. The author concludes that in times of crisis, the central bank must be free to apply all necessary measures and instruments in order to defend the financial system and preserve financial stability.
CHALLENGES AND OPPORTUNITIES FACING BULGARIA ON THE PATH TOWARDS THE EURO AREA

Abstract: The paper presents key aspects of the Bulgarian path towards the euro area, as well as some of the related legal acts. Firstly, a review of the financial and monetary laws in the context of EU law, is made. The report includes a brief introduction on the current stage of euro adoption.
in Bulgaria, along with the major dates and steps linked to the introduction of the single currency. Particularly, the process of transition to the third stage of the Economic and Monetary Union includes joining Exchange rate mechanism II, attainment of the respective post-commitments, establishment of a Coordination Council for the preparation of Bulgaria for euro area membership, creating a National euro changeover plan, development and adoption of a Law on the introduction of the euro in the Republic of Bulgaria and other important activities related to the process of preparation for euro area membership. Currently, both the legal and the economic doctrines are trying to achieve a mutual approach and to address the various challenges and opportunities, hence, the current article is an attempt in this direction.

**Keywords:** EU member state, euro area, financial law, euro adoption.

1. **Introduction**

Currently, there are 20-euro area member states with Croatia joining the monetary union on 1 January 2023. All European union member states have the obligation to introduce the common currency – the euro once they fulfill the necessary conditions, except Denmark, as the country has an opt-out clause negotiated in a protocol annexed to the Treaty.

The Bulgarian path towards the euro area started long ago, with the European Union Pre-accession Economic Programme of the Republic of Bulgaria (PEP), 2002-2005 and PEP 2004-2007. Therefore, as from the date of Bulgaria’s membership of the European Union the country shall also join the EMU – Economic and Monetary Union taking the irrevocable commitment to become a member state of the euro area. Euro adoption is the logical final phase of the European integration processes of Bulgaria within the EMU. Furthermore, since 1997 has a currency board – the lev was pegged to the Deutsche mark and then to the euro.

The accumulated legislation, legal acts and court decisions constituting the body of European Union law since 1993, is known as the acquis communautaire or Community acquis. For the purpose of negotiation between the EU and the candidate member states, during the process of the enlargement of the Union, the acquis was divided into 31 chapters (the ten member states that joined the EU in 2004, as well as Romania and Bulgaria which joined in 2007). Chapter 11 of the acquis was dedicated to the EMU. Subsequently, it was divided into 35 chapters, with the aim of achieving a better balance between chapters. Those changes were experienced during the negotiation
process with Croatia, joining the EU in 2013, as well as for candidate and future candidate countries such as Iceland, Turkey, Montenegro, Serbia, North Macedonia, Albania, Moldova, Ukraine and Bosnia and Herzegovina. Thereafter, this obligation to introduce the euro was confirmed in the Treaty of Accession of The Republic of Bulgaria and Romania to the European Union, published in the Official Journal of the European Union OJ L 157, 21.06.2005\(^3\), with effect from 01.01.2007.

2. Financial Law and Monetary Law

Economic research and legal theoretical developments are closely associated. With this regard a complex approach between lawyers and economists on the preparation process for euro adoption in Bulgaria is advantageous. The present study is a good example of a mutual work and cooperation between an economist and a lawyer. Financial law is one of the most dynamic legal branches in the contemporary legal systems of the EU member states and candidate countries. Additionally, monetary law is part of financial law. The former comprehends various topics with an interdisciplinary approach, mostly they are examined and presented within Financial Law curriculum at the universities in Bulgaria.

Moreover, the term 'Financial System' comprises not only public finance but also banking and non-banking subsystems of the financial system (supporting argument for this is the intention of Bulgaria to join the euro area, as mentioned above). The fundamental roles of the financial system are:” (i) providing secure mechanism for payments at a distance; (ii) mobilizing capital from savers who have more financial resources than uses for them; (iii) selecting projects from amongst those seeking investment to capital; (iv) monitoring the performance of those executing projects in which investment has been made; and (v) managing risk. There are institutions and financial instruments that monitor and manage risk and there are others that assist investors with taking risk”. A robust financial sector is an important milestone on the path towards the euro area. Adopting the euro also means joining the Banking Union, which Bulgaria has already joined. As of 1 October 2020, Bulgaria joined the Single Supervisory Mechanism (SSM) by establishing close cooperation between the Bulgarian National Bank (BNB) and the European Central Bank (ECB). The accession to the SSM comes as a result of

Decision (EU) 2020/1015, made by the ECB on 24 June 2020. Therefore, it is crucial to ensure that the financial sector is robust and well-regulated and supervised, and particularly systemically important institutions.

The Financial Stability Review of the ECB provides an overview of potential risks to financial stability in the euro area. It aims to promote awareness in the financial industry and among the public of euro area financial stability issues. It is published twice a year. Based on the positive European and national laws and practice, the Financial legal theory reconsiders the theoretical constructions as "Financial System", "Public Finance", "Control", "Financial Control", "Supervision", "Audit" "Financial Administration". Financial legal relations are the main subject of Financial legal doctrine within the financial system.

It must be noted that Financial Law faces a lot of challenges nowadays due to the complicated correlations and relations with the EU Law, financial system and public finances. Financial Law has its own fundamental place in the legal order of Western Balkan and Central and some Eastern European Countries (former socialist countries). Those countries have traditions in the legal doctrine in this field, due to both - the common past and future, as well as cooperation on the way towards European integration. We have to rely on our traditions and basic foundations and values of the EU. In this respect, as prof. Weatherill: "The EU itself may collapse or lose members: but the motivating force of interdependence as a stimulus to co-operation is not going away". He also claimed that: „States exercise their sovereignty through membership of the EU States give up a degree of power to act unilaterally so that they may participate in the deployment of a collective problem-solving capacity that is a great deal more effective. Resources of power are not finite: acting through the EU expands the sum of State powers so it becomes greater than its parts. The EU “adds values” to its member states. The EU’s rules and institutions do not replace, still less suppress, the several different locations political authority to be found across Europe. The EU aims to supplement the claims of its member states to be effective democratic and legitimate actors in an interdependent world, but it does not and should not pretend to suppress the diversity that is Europe’s most cherished richness. The EU aims to accommodate that diversity within a managed framework; it seeks not to replace States, but rather to achieve a better management of their interdependence. Furthermore, its impact has increased and needs to address the questions of democracy, accountability, respect of fundamental rights and national and local diversity. It should not be measured against the same benchmarks of legitimacy of the State, as it always fails, but it does
need to achieve legitimacy. It needs, in short, values. And its Treaties aspire
to grants to its values. The author concludes "I hope the EU will be able to
live up to its values".

3. Convergence criteria

According to the European Union Treaty, becoming part of the core of the
European Union – the euro area, it is needed to achieve nominal and sus-
tainable convergence. The latter is defined by the fulfilment of the so-called
convergence criteria for joining the euro area described in the Maastricht
Treaty, signed on 7 February 1992 and entered into force on 1 November
1993, namely criteria for/on:

- Price stability
- Government financial position (fiscal developments)
- Exchange rate developments
- Long-term interest rate developments

Conversely, the real convergence criteria are not legally formalized, and they
comprehend for instance GDP per capita convergence. Moreover, empirical
research shows that among the necessary conditions for real convergence is
the presence of at least partial convergence in the quality of the institutions’
work. In this context, a stable institutional environment is an important fac-
tor in analysing the sustainability of economic integration.

A Convergence Report is published once every two years or at the request
of an EU Member State which would like to adopt the euro. In addition to an
assessment of compliance with the specified nominal criteria, the EC and ECB
reports must also consider other important factors, such as the fulfilment
of “six pack” act requirements. The latter introduced a surveillance mecha-
nism - the Macroeconomic Imbalance Procedure (MIP). Key articles of the
TFEU on the EMU functioning include art. 63–66 - rules and procedures for

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TXT/?uri=celex%3A12012E%2FTXT [Accessed on 2 April 2023]

5 Diaz del Hoyo, Juan Luis; Dorrucci, Ettore; Heinz, Frigyes Ferdinand; Muzikarova, Sona
(2017: Real convergence in the euro area: A long-term perspective, ECB Occasional Paper,
dx.doi.org/10.2866/121513

6 There’s also the so-called institutional convergence.

free movement of capital, art.119 and 140 - coordinated monetary policies of
the member states, art.141 - implementation of cooperation between central
banks, art.119 - gradual introduction of the euro as a common monetary unit.

Bulgaria will access the euro area once it fulfils the necessary conditions for
membership. Until introducing the euro, the country participates in the EMU
as a member state with a derogation. In this regard, as defined in art.140
of the TFEU: “at least once every two years, or at the request of a Member
State with a derogation, the Commission and the European Central Bank
shall report to the Council on the progress made by the Member States with
a derogation in fulfilling their obligations regarding the achievement of eco-
nomic and monetary union. These reports shall include an examination of
the compatibility between the national legislation of each of these Member
States, including the statutes of its national central bank, and art.130 and 131
and the Statute of the ESCB and of the ECB. The reports shall also examine
the achievement of a high degree of sustainable convergence by reference
to the fulfilment by each Member State” of the so-called Maastricht criteria.

On 1 June 2022 the European Commission⁸ and the European central bank⁹
published their convergence reports encompassing the progress made by
non-euro area member states towards satisfying the necessary conditions for
euro adoption, namely: Bulgaria, Czechia, Croatia, Hungary, Poland, Romania
and Sweden. The ECB report included a more in-depth assessment of Croatia
compared to the other EU member states, considering the intention of the
country to introduce the European single currency as of 1 January 2023. In
general, the reports concluded that, apart from Croatia, none of the other
member states under assessment complies with all economic convergence
criteria. For instance, in five of the seven countries under review, the infla-
tion is above the reference value. Overall, the countries have made a limited
progress towards meeting the Maastricht criteria, except for Croatia, due to
the challenging economic conditions. Most of them did not reduce their fis-
cal imbalances. Three out of the seven member states did not meet the long-
term interest rate criterion.

On the other hand, EC’s convergence report concluded that:

• "Only Croatia and Sweden meet the price stability criterion.
• All Member States fulfil the criterion on public finances, except Romania

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⁸EC’s Convergence report 2022 See at: https://ec.europa.eu/commission/presscorner/
detail/en/ip_22_3312 [Accessed on 5 April 2023]
⁹ECB’s Convergence report 2022 See at: https://www.ecb.europa.eu/pub/convergence/
html/ecb.cr202206~e0fe4e1874.en.html [Accessed on 5 April 2023]
which is the only Member State subject to an excessive deficit procedure.

- Bulgaria and Croatia are the two Member States fulfilling the exchange rate criterion.
- Bulgaria, Croatia, Czechia and Sweden fulfil the long-term interest rate criterion.”

4. Preparation process for euro adoption in Bulgaria

4.1. Bulgaria and Exchange rate mechanism II

On 29.06.2018 the Bulgarian Minister of Finance and the Governor of the Bulgarian National Bank sent a letter\(^\text{10}\) to the Presidents of the Eurogroup and the Ecofin on Bulgaria’s path towards ERM II participation. Bulgaria’s intentions stated in this letter are to join the ERM II with the existing currency board arrangement in place, hence, applying to the mechanism by July 2019 and ultimately the euro following the fulfilment of the convergence criteria in accordance with art.140, TFEU. Furthermore, the country expressed its expectations to join simultaneously ERM II and the Banking Union. With this regard, on 22.08.2018 an Action Plan with the respective measures was approved. On 30.04.2020, Bulgaria officially submitted documents to the ECB to apply to participate in ERM II, the first step to introducing the euro. On 24.06.2020, the Governing Council of the European Central Bank adopted a decision establishing close cooperation with the Bulgarian National Bank with effect from 1.10.2020. Afterwards, on 9.07.2020\(^\text{11}\), the Bulgarian authorities sent an application letter, in which they requested that the ERM II Procedure will be initiated. On 10.07.2020 a Communiqué on Bulgaria\(^\text{12}\) was published by the ECB to announce that Bulgaria has joined the ERM II. The Ministry of finance of Bulgaria published an action plan\(^\text{13}\) with measures to address the ERM II postcommitments and other relevant policies.


\(^\text{11}\)European Central Bank, Letter to the President of the Eurogroup sent by the Bulgarian Minister of Finance and the Governor of the Bulgarian National Bank. See at: https://www.ecb.europa.eu/pub/pdf/annex/ecb.pr200710_annex~29156bba37.bg.pdf [Accessed on 11 April 2023]


\(^\text{13}\)Bulgarian Ministry of finance, Action plan with measures to address the ERM II postcommitments. See at: https://www.minfin.bg/en/1464
4.2. Coordination Council

A Coordination Council for the preparation of Bulgaria for euro area membership was established in 2015 by Decree No 168 of the Council of Ministers. This Council is responsible for the organization, coordination and monitoring of the practical preparation process of adoption of the single European currency. In addition, the Council is accountable for the development, implementation and potential update of the National Plan for the Introduction of the Euro in the Republic of Bulgaria. Its key tasks are to approve documents, activities and initiatives related to the preparation for the euro area accession, along with regular reporting to the Council of Ministers on the progress of the process. The Council is co-chaired by the Governor of the Bulgarian National Bank and the Minister of Finance, who is the national coordinator of the preparation for euro area membership. The Coordination Council activity resumed after the Bulgarian lev accessed to the Exchange Rate Mechanism II. The Council is assisted by expert working groups, working on:

- Macroeconomic Analyses and Public Finance
- Communications
- Public Administration
- Non-financial sector
- Currency, Payment Infrastructure and Credit Institutions
- Non-banking Financial Sector
- Consumer Protection
- Euro law

The Coordination Council for the preparation of the Republic of Bulgaria for euro area membership developed a National Euro Changeover plan (its draft was adopted 30.06.2021). The latter represents a strategic document encompassing the principles, main tasks and deadlines related to the operational work for the replacement of the lev with the euro. The plan was adopted by the Council of Ministers on 27.05.2022 with a target date for joining the euro area – 01.01.2024. Some of the main ideas of the document are that the full fixed exchange rate should be applied including all five numbers after the decimal point. It includes also guidelines on consumer protection, prevention

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of harm to individuals and legal entities, consumer security, minimization of public spending associated with the adoption of the euro, the most vulnerable groups and continuation of the existing contracts and automatic conversion of credit facilities, deposits and funds on accounts, loans, financial instruments and securities. The National changeover plan presents also the scenarios\textsuperscript{15} and time periods for euro adoption: the big bang scenario and the big bang scenario with phasing out. In the case of Bulgaria, the date of introducing the common currency coincides with the adoption of the euro as the official unit of payment, hence, the big bang scenario is chosen.

A mandatory dual display of prices in both euro and lev would be required one month after the Council of the EU takes the decision that Bulgaria meets the criteria for joining the euro area. This obligation will remain in force for 12 months from the date of euro introduction. Besides, banks and Bulgarian Posts EAD will exchange banknotes and coins from lev to euro free of charge during the first six months. However, BNB will exchange lev and euro banknotes and coins free of charge indefinitely. There won’t be a transition period for all current and other accounts, and they will be converted once, free of charge and automatically. The plan defines also the time frames and responsible institutions for other important activities, such as the selection of a design for the national side of euro coins, their production, the preparation of starter kits with euro coins, the communication campaign, the supply of euro banknotes and coins to banks, as well as merchants, the preparation for conversion of financial instruments etc.

4.3. Law on the introduction of the euro in the Republic of Bulgaria

Joining the euro area will also require some changes in the Bulgarian legal framework in order to create conditions for a smooth transition and to ensure legal certainty. Consequently, a law regulating common issues related to this process has to be adopted. The latter is called the Law on euro adoption in the Republic of Bulgaria (or Euro Adoption Law). Moreover, several laws and legislative instruments involving provisions related to the lev will be amended. In 2022, a concept of a Euro Adoption Law\textsuperscript{16} was published. In general, the document proposed a concept for the scope and structure of a

\textsuperscript{15}Regulation (EC) 2169/2005 amending Regulation (EC) 974/98 provides for the possibility for member states to choose the scenario for the euro area accession and the length of the transitional period.

\textsuperscript{16}Bulgarian Ministry of finance, Concept of a Law on the introduction of the euro in the Republic of Bulgaria. See at: https://www.minfin.bg/bg/legislation1/415 [Accessed on 15 April 2023]
new Law for the introduction of the euro in the Republic of Bulgaria, which shall govern the principles, rules and procedures for introducing the euro as an official currency in Bulgaria. Subsequently, a reference of the reflected and non-reflected proposals and opinions received from the public consultations, was published. On that base, a full Euro Adoption Law was developed by the various institutions and working groups.

This legal act is expected to cover the subjects introduced by the National euro changeover plan. The euro will be the official monetary unit of Bulgaria, as of the date of introduction of the euro in the country. Besides, the banknotes issued by the ECB and the banknotes and coins issued by the national central banks of the member states whose currency is the euro will be legal tender in Bulgaria, as of that date. The law shall also define the official exchange rate of the lev to the euro - the irrevocably fixed exchange rate of the leva to the euro defined in Council Regulation (EC) No.2866/98 of 31 December 1998 on the exchange rates to the euro of the currencies of the Member States adopting the euro (OJ, L 359/1 of December 31, 1998), which cannot be different from the fixed central rate.  

Moreover, the legal act will define the rule for conversion from lev to euro, it would be carried out by dividing the numerical value in lev by the full numerical value of the official exchange rate with all five digits after the decimal point and it won’t be allowed to use an abbreviated form of the official exchange rate. Another key principle is determining the rounding rule - after revaluation according to the defined rule for conversion, the resulting amount is rounded to the second decimal place based on the third decimal place according to the mathematical rounding rules, with some specific exceptions only where this or another law or legal act of the EU providing that rounding is to be carried out to a decimal point other than the specified.

17 According to art. 29, BNB Act the official exchange rate of the lev to the German mark is 1 lev for 1 German mark. When legal means of payment in the Federal Republic of Germany switch to the EU common currency - the euro, the official exchange rate of the leva to the euro is determined by multiplying the exchange rate under para. 1 at the official rate at which the German mark was converted to the euro. Thus, the determined exchange rate was published in the „State Gazette“ by the BNB. From the date of participation of Bulgaria in ERM II, the official exchange rate is equal to the central rate between the euro and BGN agreed in accordance with para 2.3 of the Resolution of the European Council on the establishment of an exchange rate mechanism during the third stage of the EMU Amsterdam, 16 June 1997, and art.1.1 and 17.1 of the Agreement of 16 March 2006 between the ECB and the national central banks of the member states outside the euro area to determine the procedures for the operation of the ERM in the third stage of the EMU.
5. Conclusion

To conclude, Bulgaria aims at becoming the 21st euro area member state and is in the process of joining the euro area. Currently, Bulgaria facing a lot of challenges, including political instability, as well as economic obstacles, due not only to internal but also to external factors which must be overcome by its institutions and society in order to continue its European integration. All impediments must be considered relying on the fundamental values of the European Union. The legal and economic doctrines are trying to address all those challenges. Nonetheless, the target date for euro adoption changed from 1 January 2024 to 1 January 2025 as a possible date, if the country meets the necessary criteria. In this respect, two reasons are identified – Bulgaria did not meet the entry criteria on inflation and some legal issues had not been solved – the Parliament failed to adopt changes to the insurance code, commercial law and to anti-money laundering laws. Thus, the country is looking forward the upcoming regular convergence report in 2024.

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Regulation (EU) No 1176/2011

Regulation (EU) 2169/2005

TAXATION OF DIGITAL ASSETS IN SERBIA: THE ROAD AHEAD\textsuperscript{1}

Abstract: This paper addresses the development of the normative framework governing the taxation of digital assets in Serbia. The author first outlines the initial policy goals behind the 2020 legislation and subsequently critically analyzes if they have been met. While the fundamentals of the initial logic of the Serbian tax policy makers may be accepted, the author shows that developments after the enactment of the respective legislation testify to the fact that the process cannot be deemed to be successful. Failure to publish bylaws necessary for the implementation of crucial legal provisions which is still underway, the lack of further development of introduced legislation, and the focus on the topic being present only during the drafting process show that Serbia is in a dire need of rethinking the approach applied in developing its tax legislation. This requirement is even more evident taking into account the rapid technological development which law throughout the globe is trying to align with. The author ends by providing a number of proposals for further development of the Serbian legal framework on the taxation of digital assets.

Keywords: digital assets, digital currency, taxation, legal certainty, policy making.

1. Introduction: The initial policy goal behind the introduction of the Digital Assets Act and the corresponding tax provisions

Although the topic of the future of taxation of digital assets in Serbia may seem quite novel, it may actually serve to show many of the inadequacies of the current Serbian tax policy making structure. Furthermore, it may raise some notable issues of global relevance.

\textsuperscript{1}This article has been prepared for the purposes of the strategic project “Current Problems of the Serbian Legal System”, supported by the Faculty of Law, University of Belgrade for 2023
The story of how tax provisions specifically dealing with digital assets were introduced into Serbian tax legislation is quite telling. Work on drafting tax provisions commenced as part of a project to prepare a proposal for a comprehensive piece of legislation to regulate digital assets, as well as supporting norms such as those regulating taxation. What is perhaps most interesting about the Digital Assets Act is its timing. Namely, this act (as well as most of the supporting legislation) was drafted and introduced in 2020, in the epicenter of the Covid-19 pandemic. This fact unavoidably leads to the question of why the issue of digital assets was considered so relevant that it justified the investment of considerable joint effort by various Government departments and independent public bodies (e.g., the National Bank of Serbia, the Serbian Securities and Exchange Commission, the Ministry of Finance, the Belgrade Stock Exchange, etc.) in truly extraordinary circumstances, and what was the goal they were trying to achieve.

Unofficial explanations given by the representatives of the Serbian Government to the members of the working group assembled to prepare the proposal of the Digital Assets Act was that the Serbian economy heavily depends on foreign direct investment and that, if this source of capital is to dry up due to the consequences of the Covid-19 pandemic, the country must find alternative ones. The Government assumed that Serbian individuals held considerable funds in the form of digital currencies. Thus, if they were to be motivated to sell them and invest the proceeds into the domestic economy, the drop in foreign direct investment could be mitigated, at least in the short term. Unfortunately, we still lack public sources which would provide us with a clearer insight into the demographic of Serbian digital assets holders in 2020. In other words, we do not have available data which the Government relied on when it chose digital assets as one of the alternative sources of investment capital for the Serbian economy. It was believed at the time that the majority of digital assets in the hands of Serbian holders came as a result of mining activities, wherein a considerable part of this mining was associated with some form of avoidance of paying for electricity. For instance, it was common knowledge that the north of Kosovo and Metohija was home to considerable digital assets mining activity, precisely due to the ability of miners to have access to power without having to pay for it. In Serbia proper, most individuals performed mining without registering as entrepreneurs, thus not

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only avoiding taxation but also benefiting from subsidized electricity tariffs. Therefore, the working assumption was that unidentified individuals in Serbia possessed a very significant amount of digital currencies, whereby the generation/acquisition of these digital currencies was done in a completely informal fashion, including the failure to report and pay any taxes. It only stood to logic that Serbia had to introduce a rather beneficial tax treatment of digital assets if it were to motivate these individuals to dispose of their holdings and invest the thus generated funds into the mainstream flows of its economy (Kostić, Živković, 2023).

Here, we must pause and deliberate on the soundness of the described policy. Namely, one could note that Serbia was allowing individuals, whose business model was essentially based on breaking the law, to reap all its benefits while avoiding legal responsibility. Essentially, Serbia was not only condoning but rewarding, at the very least, a rather liberal attitude for its own laws. While such a comment would have merit, it should also be considered that the whole subject of digital assets was quite new and that, in 2020, very few countries had any clear guidance on how to treat them (Avi-Jonah, Salaimi, 2022: 17). Furthermore, the speed of technological progress has led to situations wherein the alignment of a new business model, previously practically impossible but now enabled by technology, with relevant legislation (e.g. Uber) is deliberated only once it has been successfully implemented and gained a notable section of the market, i.e. post factum (Borkholder, Montgomery, Chen, Smith, 2018: 16). In other words, Serbia would not be a unique case of the legislator adjusting the law to new technologically driven reality, instead of the economy modeling itself according to the existing laws.

In the early summer of 2020, no one on the planet was in the position to have any certainty as to what the future will hold, which does give credence to the Serbian Government’s attempt to find alternative sources of capital in order to mitigate the quite realistic possibility of foreign direct investments no longer coming into the country.

Another, surprisingly not so unique, goal behind the introduction of the Digital Assets Law could be recognized. In most circumstances, Serbia, as a small and developing economy, would not be a pioneer in legislating novelties resulting from technological developments. Jurisdictions such as ours would usually wait until there were sufficiently established practices in more

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4 One may notice that technological complexity has only a limited impact on the general attitude of the legislator as we can see similar examples of condoning disrespect for the law in various other fields of legislation in Serbia (e.g. illegal construction).
developed countries, whereby we would rely on these sources (quite often through an approach which is quite close to a copy-paste one) to tailor our own legislation. In 2020, Serbia was one of the few countries in the world to introduce comprehensive legislation governing digital assets, as well as rules specifically dealing with their taxation (OECD, 2020: 16-18, 21-22). What can be deduced from such a bold attitude of the Serbian legislator is the desire to promote Serbia as a country which is in tune with modernity and is ready to accept it with open arms. In other words, the introduction of the Digital Assets Act and its supporting legislation may have had a significant marketing element. This would not be the first time that Serbia has used such an approach, as evidenced by the provisions of the Serbian Personal Income Tax Act dealing with digital nomads (Kostić, 2019: 67-69).\(^5\) Perhaps the most notable example of promoting a jurisdiction's positive attitude to digital assets for the purposes of improving its global reputation is that of El Salvador, which in 2021 accepted Bitcoin as its official currency.\(^6\) On the other hand, Serbia chose to signal that it provided a solid legal framework and a high degree of certainty for a digital assets market, and did not venture into the territory of endangering the status of its legal tender, the Serbian dinar (RSD).

2. The failure of Serbian tax policy in relation to digital assets

The tax legislation which was introduced in support of the Digital Assets Act in late 2020 was primarily focused on digital currencies and provided only partial guidance on the taxation of other forms of digital assets (utility and security tokens). Such a posture is only logical given the previously described background for the introduction of the Digital Assets Act. Alas, it is at this point that we arrive at the major flaws of the policy process relating to digital assets.

\(^5\) Under general principles of Serbian tax law, if a foreigner came to Serbia, stayed in Niš for 7 days and then left the country, Serbia would be entitled to tax all income which this individual generated during the person’s stay. For example, the foreigner could have worked for a Japanese client while sitting in a Niš café, where the client would pay him/her in a months’ time, when the person is far away from Serbia, to a bank account which is not with a Serbian bank. However, the money related to the work done in the Niš café would be taxable in Serbia, although it is more than evident that the chances of such tax ever being collected are purely theoretical. Article 9b of the Serbian Personal Income Tax Act essentially exempts from taxation the income of digital nomads, which in practice Serbia would never be able to tax, thus aligning the law with reality. However, its introduction in late 2019 generated a lot of positive publicity for Serbia in the digital nomad community and media.

Until the end of 2020, there were no undisputable issues relating to the reasoning and the process behind the drafting and the introduction of the legislation governing digital assets. As we have already seen, arguments can be found both in favor and against the approach chosen by the Serbian Government. The lack of sound statistical data can be explained by virtue of the novelty of digital assets, as well by the urgency to introduce preemptive measures due to the global economic turmoil caused by the Covid-19 epidemic. Therefore, while we could agree to disagree with the Serbian Government, it would be difficult to reject the existence of founded reasoning to the contrary, particularly in light of the very unique circumstances in which the digital assets legislation was introduced. However, since 2021, such an approach is no longer possible.

Firstly, as soon as it became evident that the anticipated drop in foreign direct investment flows was not going to materialize, the enthusiasm of the Serbian tax policy makers evaporated. For example, from the perspective of generating new capital for the Serbian economy, the most relevant tax provision is the one found in Article 79a of the Serbian Personal Income Tax Act,\(^7\) as it provides for an effective 7.5% tax rate, instead of the general 15% one, for capital gains generated on the sale of digital assets, provided that the proceeds are invested into the Serbian economy within a certain timeframe. In other words, this tax incentive was intended to stimulate individual taxpayers to dispose of their digital assets and invest the obtained funds into the Serbian market. However, for this incentive to be applied in practice, the Minister of Finance had to enact a bylaw, while the legislator gave him a deadline of 120 days from the day the Digital Assets Act came into force to complete this task. As the Digital Assets Act came into force on the 29 December 2020, the Minister of Finance should have published the relevant bylaw by the end of April 2021. What may come as a surprise is that this bylaw has not been published as of 31 August 2023, which means that the probably most important tax provision relating to the accomplishment of the initial goals behind the efforts to enact the Digital Assets Act cannot be applied in practice more than two and half years since its introduction into the Serbian Personal Income Tax Act. Such a state of affairs testifies to the fundamental lack of a long-term, or even mid-term tax policy, a misunderstanding of the relevance of legal certainty, as well as a cavalier attitude towards responsibility for the implementations of measures introduced by the Serbian Parliament.

\(^7\)Personal Income Tax Act, Official Gazette of the Republic of Serbia, no. 24/01, 80/02, 80/02, 135/04, 62/06, 65/06, 31/09, 44/09, 18/10, 50/11, 91/11, 93/12, 114/12, 47/13, 48/13, 108/13, 57/14, 68/14, 112/15, 113/17, 95/18, 86/19, 153/20, 44/21, 118/21, 138/22.
A devil’s advocate may attempt to argue that the Ministry of Finance, despite the fact that such an approach would be completely unacceptable from a legalistic perspective, choose to rethink the merits of the adopted policy once it realized that the existential threat to the Serbian economy did not materialize. Unfortunately, we have absolutely no evidence to confirm such a claim. Since the introduction of the provisions specifically dealing with the taxation of digital assets into Serbian tax legislation, i.e. during the last three years, the Serbian legislator acted only once in late 2021 in order to ease the compliance burden related to the reporting and paying tax on capital gains generated by individuals on the sale of digital assets.

Secondly, the Serbian Ministry of Finance did not continue its legislative work, despite the fact that its opinions issued in relation to the taxation of digital assets may lead taxpayers to conclude that there has been a dramatic shift in its interpretation attitude pre and post the enactment of the Digital Assets Act and the corresponding provisions of tax legislation. For example, in the area of VAT, the opinions from the pre-Digital Assets Act period follow a very strict formalistic interpretative approach, while the ones from the post-Digital Assets Act period rely significantly on analogy and the spirit of the law. The static nature of the VAT provisions dealing with digital assets also show that Serbian tax policy has not moved its primary focus from digital currencies, whose VAT treatment has been regulated by virtue of the 2020 amendments to the VAT Law. The VAT treatment of other forms of digital assets, crucial for their successful introduction into everyday economic life, continues to remain within the insecure ambit of interpreting general VAT provisions.

Thirdly, Serbia has not even opened up the debate on the essential compliance issues related not only to the taxation of digital assets and the prevention of tax avoidance but also to money laundering and the prevention of other forms of crime.

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8 Had this been the case, the Serbian Ministry of Finance and the Serbian Government would be obliged to ask the Serbian Parliament to amend the relevant legislation and provide it with more time.


10 See Opinion of the Serbian Ministry of Finance, no. 413-00-168/2017-04 from 26 October 2017.


Namely, the Serbian experience with digital currencies used in relation to criminal activities is similar to the ones found around the globe (Foley, Jonathan, Putnin, 201:1800). Furthermore, the evidenced attitude of the Serbian taxpayers, combined with the ability for taxpayers to stay anonymous, which digital assets still do provide in many cases, added the threat of tax avoidance and evasion to such concerns. However, despite such circumstances, Serbia has made no effort to introduce additional compliance measures in this domestic legislation, nor has it joined international efforts which have recently commenced. Historically, Serbia has not been particularly active when it comes to cross-border exchange of information, justifying such a stance by the unenviable administrative capabilities of our tax authorities and public administration in general. However, the nature of digital assets is such that, from a perspective of a jurisdiction such a Serbia, unilateral measures serve little or no purpose as individual investors revert to using foreign exchanges and markets to conduct their transactions and keep their assets thus essentially, in the absence of effective exchange of information with foreign authorities, limiting the chances of determining tax avoidance to situations when the taxpayers makes a notable investment in Serbia (with those taxpayers which are more prone to frivolous spending having a good chance of never being discovered) (Baer, de Mooij, Hebous, Keen, 2023: 23).

In conclusion, legal certainty in the area of taxing digital assets has not been established and taxpayers are increasingly having to deal with uncertainty as they attempt to introduce more complex structures involving digital assets. Serbia has shown that it can do much when pressed but that it fails to live up to its commitments once the pressures eases. In addition, the lack of investment into the development of the administrative capabilities of the Serbian tax authorities carries the risk that an increasing part of newly introduced legislation serves only marketing purposes, with actual and proper implementation not being a realistic possibility.

3. The road ahead
Since the introduction of the Digital Assets Act in 2020, we have seen notable global developments in the area of taxing digital assets. Serbia has the opportunity to go back to the drawing board and revisit the legislative solutions introduced three years ago, free from the concerns which the Covid-19 epidemic imposed.

The first issue which must be addressed is the general approach towards digital assets from a tax perspective. For instance, does Serbian policy have
any reason to be benign towards investments and transaction in digital currencies? Should more focus be given to those aspects of digital assets which could have a more fundamental economic effect, particularly for small and medium business, such as the use of utility tokens to deepen market presence or investment tokens to open up new venues for raising capital? In other words, what is the benefit from digital assets for the Serbian economy and society, and should differences be made between various types of such assets? Such deliberations require reliance on currently non-existent statistical and econometric data, as well as research into comparative experiences of similar jurisdictions.

Secondly, Serbia must ensure that the development of its legislative framework is supported by an administrative structure capable of implementing it. Laws must not be introduced on the basis of short-term inspiration and enthusiasm, while policy makers must come to grips with the fundamental importance of developing the country’s civil service. Otherwise, apart from eventual marketing effects of doubtful relevance, Serbia will not be in the position to benefit from newly introduced legislation, while the overstretched tax administration's capability to effectively implement even the less challenging aspects of tax legislation will be hampered. Serbia has had notable negative experiences with so called “dormant” legislation, wherein (during reform drives) its tax legislation would be enlarged by sophisticated provisions for whose practical application no prior preparation was in place, leading to significant periods without effective implementation (e.g. transfer pricing provisions from 1991 to 2008) (Kostić, 2017: 77).

Finally, Serbian tax policy makers must focus on measures which will enable the effective collection of taxes. Namely, most policy choices become irrelevant when faced with the practical inability to collect taxes, as is evident from the background of the 2020 digital assets tax legislation. Serbia could have only hoped to motivate taxpayers to meet their obligations by providing them with significant incentives, but it was in no position to enforce its claims, simply because the capability of the Serbian Tax Administration to actually determine the existence of such claims was minimal. Pure reliance on the moral of the taxpayers, particularly in the case of individuals, is usually the approach chosen when there is no other option. Thus, in the case of digital asset’s taxation in Serbia, there is significant space for the improvement of compliance mechanisms. For example, Serbia could impose withholding obligations for digital currency exchanges operating in the country in combination with an advance tax mechanism. Every time an individual would sell its digital assets for fiat currency, the exchange would be obliged to with-
hold and pay on behalf of such an individual a certain amount of income tax. If the taxpayer believes that the imposed tax is excessive in relation to the real gain he/she generated on the sale, there would be a possibility of asking for a refund. Otherwise, the withheld amount would be deemed as the final settlement of the tax obligation. However, such domestic measures would require a parallel development of exchange of information mechanism with foreign jurisdictions, particularly those which host the exchanges mostly frequented by Serbian users. Serbia must break tradition with its rather parochial stance when it comes to international cooperation in tax matters and make better use of the existing forums. The proposals currently emanating from the OECD may serve as a solid starting point (OECD, 2022). Ultimately, the Serbian Tax Administration must show taxpayers that it is able to implement tax provisions on digital assets with the existing tools for determining unreported income and break with the now two decades of tradition which testifies to the contrary. Specific compliance measures will inevitably take time to provide results and may not capture transactions which happened in the past. On the other hand, the effects of such transactions will eventually show in the increase in the property of a taxpayer, thus logically leading to the conclusion on the relevance of provisions governing the assessment of unreported income on the basis of the increase in the taxpayer’s assets.

4. Conclusion

Technological development is one of the most striking traits of the times we live in. When combined with extraordinary circumstances, such as the Covid-19 pandemic, they may lead to innovative legislative developments. However, the mesmerizing effect that modernity has on the legislator sometimes leads to efforts being invested into showing that the legislator is in tune with it, but without sufficient reflection and preparation. It is precisely due to the fact that very little, if any, attention was given to the development of the administrative capacity to effectively implement tax provisions relating to digital assets, while tax policy was tailored to address only immediate concerns, that Serbia failed to expand and develop on the foundations which were laid by virtue of the 2020 legislation. Apart from a small number of interpretations provided in the opinions of the Ministry of Finance, the Serbian legal framework on the taxation of digital assets is almost at the exact place where it was two and a half years ago.

Tax policy is a long-term exercise, while the inability to further develop and/or effectively implement legislation creates negative publicity for the inves-
tor community, trumping all the positive signals the initial enactment may have sent. Failure to publish required bylaws for the implementation of tax legislation is not unique in Serbian legal history but what is truly unique in the case of digital assets is the lengthy period in which we see that the obligation imposed by the Parliament was and is still being ignored. As the speed at which our world is changing is only going to increase with time, it is of ultimate importance that the Serbian tax policy makers alter their approach. Simply pretending to be technologically sophisticated is bound to be recognized by the taxpayer community, both domestic and international, which will inevitably lead to a drop in both confidence and respect of the authorities.

We have attempted to provide some proposals how to remedy the existing state of affairs in the area of law which is at the forefront of recent developments, while they can be summarized by noting that successful legislative work entails both the ability to grasp modernity and the ability to do the good old-fashioned preparatory work.

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\[13\) E.g. Art. 46a of the Corporate Income Tax Act.


THE CHALLENGES OF THE MACEDONIAN TAX SYSTEM ACCORDING TO THE EU RECOMMENDATIONS AND EU TAX RULES

Abstract: The EU integration process of the Republic of North Macedonia requests certain tax reforms according to EU tax rules and priorities. North Macedonia is one of the remaining six Western Balkan countries that are EU candidate countries. The Republic of Macedonia was the first country to sign the Stabilization and Association Agreement (SAA) in April 2001, and the first country in which the SAA has entered into force. In May 2019, the European Commission (EC) recommended the opening of accession negotiations with North Macedonia. The first Intergovernmental Conference on accession negotiations with North Macedonia was held in July 2022, and the country started with the screening process. The last EC staff working document, the North Macedonia 2022 Report, covers the period from June 2021 to June 2022. According to the EC staff working documents for North Macedonia, the country has been “moderately prepared in the area of taxation” in the last several years. The COVID-19 pandemic had a severe impact on the national tax and fiscal system. Thus, the 2021–2025 Tax System Reform Strategy mainly introduces the recommendations from the last several EU reports for North Macedonia, but some of the reforms are still pending. Therefore, this research will examine and give an overview of the national tax reforms that were established after the independence of the country in 1991 (after the breakup of Yugoslavia). Focusing on the main tax policies and strategies, the crucial tax reforms emphasize the development of the tax reforms during and after the COVID-19 pandemic. The research will be mainly based on published international official reports and documents, EU tax policies and recommendations, national policies and strategies, tax laws, and published research papers.

Keywords: Macedonian tax reforms, COVID-19, Tax System Reform Strategy (2021-2025).
Introduction

Since its independence as a unitary state, the country has been challenged with several main tax reforms. Some of these reforms have been crucial and inevitable parts of the developing process of modern society. Tax policy is mainly influenced by the socio-political environment and the economic condition of society.

The COVID-19 appearance caused adverse effects on the global economy. The European Economic Forecast for Spring 2020 marked this period as a period of “deep” and “uneven recession, and “uncertain recovery” (EC European Economic Forecast-Spring 2020, 2020: 9). Thus, the monetary and fiscal policy response to the crisis, both globally and in the EU, has been challenged to impose and implement restrictive and unprecedented measures. Consequently, the EU economy developments in 2020 and in the next couple of years (2021, 2022) were largely determined by the set of restrictive and contaminated measures imposed and the duration of lockdowns (curfews) during the pandemic. Thus, the EU was forced into its deepest recession since the 1930s (EC European Economic Forecast-Spring 2020, 2020:9). On the other hand, the EC European Economic Forecast-Spring 2021 projects that “growth rates will continue to vary across the EU, but all Member States should see their economies return to pre-crisis levels by the end of 2022” (EC European Economic Forecast-Spring 2021, 2021). The EU economy is forecast to grow by 4.2% in 2021 and to strengthen to around 4.4% in 2022 (4.3% and 4.4%, respectively, in the Euro area) (EC European Economic Forecast-Spring 2021). Yet, the projections on the EU economy growth were not fulfilled; after almost two years of unexpected impact of the Covid-19 pandemic, “Russia’s invasion of Ukraine has posed new challenges” (EC European Economic Forecast-Spring 2022, 2022). It was hard for the EU economy and the EU member countries to endure the repetition of various global challenges in a short period of time but they succeeded in avoiding recession.


On the other hand, this global uncertainty was a severe shock for the small economies in the Western Balkans countries, especially for the Republic of North Macedonia.

During the health crises caused by COVID-19 pandemic, in order to mitigate unemployment and the forecast inflation, the North Macedonian government adopted several packages of economic and financial measures concerning direct and indirect taxation. Some of the provisions from the new Personal Income Tax Act\(^4\) were postponed or abolished. Amendments to the Corporate Income Tax Act\(^5\) referred to stimulation, tax reliefs and exemptions for companies that sustained losses due to the COVID-19 crises. The health crisis and subsequent energy crises triggered the adoption of some measures concerning indirect taxation (VAT\(^6\), custom, excise). Additionally, solidarity taxes were introduced in the country for the first time as a short-term and ad hoc funding solution. In accordance with Council Regulation (EU) 2022/1854 of October 2022 on an emergency intervention to address high energy prices\(^7\), in January 2023, the Macedonian government announced the preparation of the Draft Solidarity Tax Act,\(^8\) which will establish the obligation to collect a solidarity contribution from companies which in the 2022 had a total revenue greater than that EUR 10 million (MKD 615 million). The solidarity tax rate will be 30% and will be reported by submitting a separate tax return by 15 March 2023 (PwC, 2023).\(^9\) The idea behind this proposal is to mitigate


\(^{9}\)PwC (2023). Tax Alert-Draft Law on Solidarity Tax, 2023; https://www.pwc.com/mk/
the impact and negative effects on citizens and companies from high energy prices and to preserve the sustainability of public finances. The Draft Solidarity Tax Act was introduced as part of the anti-crisis measures; it is aligned with the EU legislation and it also envisages short-term funding solutions.

The World Bank experts point out that the share of tax revenues in GDP is significant for the economic growth and the poverty reduction because it is necessary for the countries to have the required funds at their disposal, so as to be able to invest in the future and achieve sustainable economic growth. This is also a significant signal for investors in terms of the country’s capacity and its sustainability in servicing the liabilities. The data provided by the Ministry of Finance of North Macedonia (2022)\textsuperscript{10} show that developed countries usually have a higher share of tax revenues in GDP; thus, in 2019, the average in the OECD countries was 33.8%, which is twice the average amount in North Macedonia (16.1% in 2020). The data also show that tax collection as a percentage of GDP in North Macedonia is below the average percentage in the countries in the region; at the same time, it is far below the average of the 27 EU countries, as well as the developed countries. If we consider the historical data on the quantitative indicators of the tax system efficiency, the need for changes is evident. The gap between the share of revenues generated from taxes and contributions in GDP in the EU-27 and North Macedonia is significant; in 2008, total tax revenues and social contributions accounted for 38.4% of GDP on average in the EU-27, while accounting for 27.7% in North Macedonia (i.e. by 10.7 % less). During the analyzed 2008-2020 period, the gap deepened, reaching 13.9% in 2020. As for the Western Balkan countries, by analyzing only the tax revenues without the social contributions, the share of tax revenues in GDP is convincingly the lowest in North Macedonia accounting for 16.1% in 2020, 23% in Montenegro, 22.3% in Kosovo, 20.1% in Serbia, and 17.3% in Albania. If analyzed over a longer period of time, a negative gap is constantly recorded in North Macedonia as compared to the region. This is a result of several factors such as lower tax rates, higher tax exemptions, as well as coping with the informal economy, coupled by the respective efficient collection (Ministry of Finance of the Republic of North Macedonia, 2022).

1. A brief overview of the development stages of the Macedonian tax system

The researchers agree that the development of the tax system can be observed through several major and significant tax reforms. In this context, the Republic of Macedonia has historically been through the following development stages (Пендовска, Максимовска Стојкова, Зафироски, Нешовска-Ќосева, 2021: 230):

- The first great tax reform in 1993;
- Introducing the value added tax in 2002;
- Adopting the Tax Procedure Act in 2005;
- Introducing the flat taxation in 2006;
- Restitution to progressive taxation from 2018.

The last reforms (i.e., the sixth package of reforms) were challenged by the outbreak of the COVID-19 pandemic in 2020 and the consequences caused by the pandemic. The reform priorities were envisaged in the Tax System Reform Strategy 2021-2023\(^\text{11}\).

The first big tax reform was made in 1993. After declaring independence from SR Yugoslavia, the country inherited the Yugoslavian tax system, which was hard to maintain and adapt to the market-oriented economies. This reform refers to significant changes in tax legislation on personal income and corporate revenue taxes. New laws on personal income tax were introduced, and a synthetic income tax for natural persons was implemented. The income tax for legal entities was implemented by the new legislative act on corporate tax.

The second crucial reform in the country was made in the area of indirect taxation by introducing the value-added tax (VAT) in 1999; the VAT Act entered into force in 2000. This reform was mainly influenced and strongly supported by the EU. The Republic of Macedonia signed the Stabilization and Association Agreement (SAA) in April 2001.\(^\text{12}\) In line with the SAA agreement with EU, the market, the economic relationship with the other EU countries, and trade benefits with the EU, there was a need to harmonize national leg-


\(^{12}\) The SAA was signed on 9 April 2001 in Luxemburg. The Republic of Macedonia was the first country in the region that signed SAA and the first country in which SAA entered into force.
islation with European VAT directives. After the adoption of Council Directive 2006/112/EC on the common system of value-added tax, this became an inevitable part of the integration and accession process for the country and its economy. In compliance with the EU VAT Directive and the condition of the national economy, the general VAT rate is 18% and the reduced rate is 5%, which again makes the country a favorable tax environment and promotes tax competition. The EU’s average standard VAT rate is 21%; according to the list of VAT rates applied in EU member countries, North Macedonia has the same VAT rate as Malta. Luxembourg has the lowest standard VAT rate at 17%, and Hungary has the highest standard VAT rate at 27%. Croatia, Denmark, and Sweden have standard VAT rates at 25%. It should be noted that some EU member states had not had VAT in their tax systems before their accession (e.g., Spain introduced VAT into the national tax system at the time when it entered into EU membership). On the other hand, some of the amendments to the Macedonian VAT Act adopted in 2014 included novelties that extended the scope of taxpayers. It was the first time that a natural person in a position as a lessor should be a tax payer under the VAT Act, and under the Personal Income Tax Act (in particular cases). As stated in the amendments, this applied to craft workers, sole proprietors, and micro traders whose activities are regulated by the Company Act, and whose profits exceed the limits stipulated by the Company Act. When compared to some countries in the region (Croatia and Serbia) and the EU practice in VAT taxation, it should be noted that this legal solution was an exception. This legal solution was criticized by the academic community, which underscored that “despite the continuous tax reforms efforts, Macedonian taxpayers are put in a less favorable position than taxpayers from the region, which is inconsistent with the EU tax harmonization” (Pendovska, Maksimovska, Nesovska-Kjoseva, 2017: 129). The VAT Act has been amended 40 times until today.

The third reform of the tax system was marked by the adoption of the Tax Procedure Act in 2006. It was the first time that the tax legislation was enacted in one organic procedural tax law in order to constitute and improve tax regulation and procedural tax issues, and to ensure the protection of taxpayers’ rights. This law was the cornerstone of the general tax law, aimed at establishing the basic legal concepts of tax administration and tax procedures, the rights and obligations of tax payers and tax administration, as well as improving the application of tax procedures and the general tax law.

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13 The Act amending the VAT Act, Official Gazette of the Republic of North Macedonia, No. 130/2014

The fourth tax reform refers to introducing flat-rate taxation. It was one of the most extensive reforms in the country. After repealing progressive taxation, the legislator introduced and implemented flat-rate taxation, with a reduced tax rate of 12% in 2007 and 10% in 2008. The flat-rate taxation was imposed on personal and corporate taxes with a proportional tax rate. Thus, Macedonia joined other countries using the MMF taxation model (Estonia, Latvia, Lithuania, and Slovakia). Until 2006, the country had a progressive tax rate. The flat-rate taxation with a proportional tax rate was easily accepted by Macedonian tax payers. Moreover, this tax reform improved the business climate and the tax competitiveness of the country. Before this reform, the tax rates for personal income (of natural persons) were 15%, 18%, and 24%, while the tax rate for corporate income of legal entities/ was 15%. Thus, the tax burden for taxpayers was reduced for the first time, and the country was listed as one of the countries with the lowest tax rate in Europe. Additionally, with the amendments to the Personal Income Tax Act, the provisions on the taxation of reinvested profit became unenforceable: tax incentives for the companies that invest in the Free Economic Zones; tax holidays; a zero tax rate for personal release; postponing taxation on income from capital (e.g. interest on time savings and other deposits, which was postponed until 2023); and capital gain tax exemptions (for sales of securities and units/shares by an investment fund, tax is not payable on capital gains earned from the sale of securities that were issued within the initial public offer; capital gains from the sale of immovable property are exempt in specific cases).

The fifth tax reform brought back progressive taxation on stage. In 2018, a new Personal Income Tax Act was adopted, which was implemented in 2019. This reform refers only to the tax obligations for natural persons while legal entities are still taxed under the applicable law with a tax rate of 10%. As a matter of fact, progressive taxation has never been put into effect; a contrario, it was abolished. The new PIT Act was amended a couple of times; some of the provisions were abolished, some were amended. Consequently, after being previously postponed for a period of three years, the progressive taxation was supposed to be applied as of 1 January 2023. Additionally, with the amendments of this Act, the taxation of interest on savings was postponed until North Macedonia’s accession to the EU. Inter alia, amendments also stipulate: taxation of capital gains generated from sale of securities and units issued by investments funds acquired from 1 January 2023, as regards the period of acquisition, taxation rate and the manner of calculating and paying the tax; additional clarification and regulation of the base for taxing the non-monetary benefits of taxpayers generating income thereupon; abolition of
the tax exemption as regards the paid life insurance premium, paid premium for voluntary health insurance and paid contribution in a voluntary pension funds for the employed people; determining the treatment of unrecognized expenditure for the whole amount of the life insurance premium for persons performing independent activity; additional regulation of the procedure for tax exemption or reduction as per the international agreements on avoidance of double taxation on income generated by foreign natural person, etc. (Ministry of Finance of North Macedonia, 2022). Thus, the implementation of the new PIT Act as a part of the tax reform concept has partially justified the achievement of the main reason for adopting the new PIT Act. On the other hand, some novelties have not come into force, and some have been postponed a couple of times.

In January 2020, the Tax System Reform Strategy (2020-2023) was launched by the Ministry of Finance of the Republic of North Macedonia. The strategy is a basic framework for introducing the upcoming tax reforms. It outlines five priorities for tax policy and tax administration for the period 2020–2023: to increase the fairness of taxation; to improve revenue collection through increased efficiency and productivity of the tax system; to increase tax transparency; to improve the quality of services; and to introduce green taxation. (Ministry of Finance, 2020: 3)

2. The main reasons for challenges in the tax system seen through ad hoc decisions and preventive measures during and after the COVID-19

“What began as a supply shock in China has morphed into something much more serious that is pushing the global and the European economy into its deepest recession since the 1930s” (EC European Economic Forecast-Spring 2020, 2020: 1) The pandemic shock was even more severe for the small and transition economies in the Western Balkans. In the Republic of North Macedonia, a vast number of ad hoc policies, measures, and government decisions were introduced and implemented in 2020 and 2021 to mitigate the impact caused by the COVID 19 crisis. Moreover, the pandemic shock became a source for adopting unprecedented health, economic, fiscal, and legal measures. The standard approach and practice of initiating, adopting, and implementing recommendations and rules was on the decline, and unprecedentedness became the “new normal”. This discrepancy still exists in 2023. Additional burdens to the national economy were the political elections and political uncertainty in the country. On 18 March 2020, the Government declared a
state of emergency. According to national law and its legal nature, in a state of emergency, the Government decrees have the force of law. In the area of tax regulation, 10 decrees with the force of law were adopted, which provided financial support, certain tax exemptions, relief in settling tax obligations, and social benefits to the taxpayers affected by the crisis (Public Revenue Office NM, 2020: 11). In such circumstances, a specific tax regime was in force.

Consequently, economic growth was slowed down, and the labor market remained muted. In February 2020, the unemployment rate in the Euro area stood at 7.3%, its lowest level since May 2008 (6.5% in the EU). (EC European Economic Forecast/Spring 2020, 2020:10). According to theory and practice, GDP developments (production side) affect employment and the labor market with a certain time lag. On the other hand, according to the quarter report from the State Statistical Office of North Macedonia, in the first and second quarters of 2020 in North Macedonia, the unemployment rate fell to 16.4% in Q1 from 18.1% recorded a year before (2019). At the same time, the employment rate increased to 55.6%, i.e. by 1.7 % compared to the same quarter in 2019 (Macedonia 2025 Think-tank, 2023).

In 2020, a new VAT tax rate of 10% was introduced, which applied to food and beverage delivery services for on-site consumption and catering services, with the exception of alcoholic beverages. Additionally, a preferential tax rate of 5% was introduced on craft services performed by craftsmen registered in the craft register according to the Crafts Act. With these tax amendments, which were part of the economic and social package measures during the COVID-19 pandemic, the VAT consisted of three tax rates (18% as a general rate), and two preferential rates (10% and 5%).

A new challenge appeared along with the Russian-Ukrainian conflict, which turned into a war and had a significant impact on the imports and exports, followed by international bans and restrictions. It has changed the prices of food sources, the supply of energy and electricity, and other business trades and services. During the last 26 years, the exports of Ukraine to North Macedonia have increased at an annualized rate of 5.41%, from $34.3 million in 1995 to $135 million in 2021 (OEC, 2021). In 2021, Ukraine did not export

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any services to Macedonia, and vice versa. In February 2021, the Government of North Macedonia, joined the latest EU’s package of sanctions against Russia and all CFSP decisions regarding the territorial integrity of Ukraine (EWB, 2022). Consequently, it was expected that companies in the agricultural and food sectors would be immediately affected by these decisions. The business community agrees that the direct effects on Macedonia’s foreign trade with Russia and Ukraine are low. In 2021, Russia participated with 0.7% of the country’s total exports, and Ukraine with 0.2% of total exports. Russia accounted for 1.7% of imports and Ukraine for 1.5% of imports. However, the indirect effects of this conflict on the EU economy are likely to have a huge impact on the Macedonian economy, i.e. reduce exports and investments (to and from the EU) (Bankarstvo, 2021).

To maintain prices and mitigate inflation, the North Macedonian Government imposed several packages of anti-crisis measures aimed at supporting citizens and companies, amended and supplemented tax regulations by adopting tax reductions and exemptions, stimulations, and subventions. Notably, it increased fiscal implications on the budget at the end of 2021 and in 2022. Since the beginning of the COVID-19 crisis, the Government has adopted packages of measures that account for about 11% of our GDP. For comparison, according to the IMF data, fiscal stimulus in the countries of the region ranges from 2.4% of GDP in Bulgaria to 3% in Bosnia and Herzegovina, 3.3% in Albania, 4% in Montenegro, 5% in Kosovo, 7% in Croatia, 13.6% in Serbia, and about 14% of GDP in Greece and Slovenia (Ministry of Finance NM, 2021).

According to the European Commission staff working documents (North Macedonia reports) issued in the last three years, the Republic of North Macedonia has been continuously designated as being "moderately prepared"
in the area of taxation, while the recommendations from the previous year report “have not been fully implemented” in this area and “remain valid” (EC North Macedonia 2020 Report, 2020:79; EC North Macedonia 2021 Report, 2021: 79; EC North Macedonia 2022 Report, 2022: 79).

The first Intergovernmental Conference on accession negotiations with North Macedonia took place in July 2022, and the country started with the screening process. Consequentially, the last EC staff working document, the EC North Macedonia 2022 Report, covers the period from June 2021 to June 2022. In the context of harmonizing its legislation with EU tax law, the North Macedonia has to fulfill the Copenhagen criteria, which include a functional market economy and acceptance of all EU legislation and proposals. All rules or conditions from the Treaty Establishing the European Community (Common rules on competition, taxation, and approximation of laws) apply to Member States and future member states. Thus, North Macedonia has been recommended to “improve the capacity of the tax administration by efficiently implementing the 2021-2025 Tax System Reform Strategy; ensure an effective automatic exchange of tax information with EU Member States (in line with the OECD Global Standard); develop a new integrated IT tax system for the Public Revenue Office, improve its compliance risk management and further extend e-services for tax payers” (EC North Macedonia 2022 Report, 2022: 79). In August 2022, the Government of the Republic of North Macedonia adopted the updated Macedonian Tax System Reform Strategy 2021-2025, particularly addressing prospective changes to the corporate tax, personal income tax and social contributions, and value added tax (VAT) legislation.

**Summary**

Despite the crises, the Republic of North Macedonia has made some progress in certain areas in line with the EC recommendations, but some tax laws in the area of direct and indirect taxation are still not in line with the EU acquis. There is a need to improve the capacity of the central and local tax administration by adopting and efficiently implementing the Tax System Reform Strategy 2021-2025, improving the capacity of the tax administration, and implementing the automatic exchange of tax information with EU Member States in line with the OECD Global Standard.

The goal of the last tax reforms has been to improve the efficiency of tax administration and the functionality of e-tax services, to reduce the administrative burden for taxpayers, to prevent tax evasion, to align with the EU acquis in the area of indirect taxation by emphasizing environmental taxa-
tion, and to strengthen and enhance public debt management. By extending the scope of taxation, introducing new taxes, and promoting “smart public finances,” the policymakers illustrate that the country, ex lege, is ready to enhance the tax system according to the EU, IMF, and World Bank recommendations with their strong support and by sharing their expertise. Last, but not least, it should be mentioned that lately the tax reforms have been created through public debates and discussions with society and with the consultation and participation of the business community, but there is a lack of collaboration with the academic community.

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MONETARY LAW AS AN INDEPENDENT AND POSITIVE LEGAL DISCIPLINE IN SERBIAN ACADEMIA

Abstract: The aim of this paper is to indicate the theoretical and practical importance of studying the positive legal discipline of Monetary Law in the domestic legal environment. In this context, the paper provides an overview of the subject matter, underlying principles and sources of monetary law, with specific reference to its relationship with the law of central banks, which it is closely related with, particularly in terms of the subject matter and content. The authors believe that the study of the legal regulation of monetary relations, monetary policy, and the actions of the central bank as the supreme monetary institution and the guardian of monetary sovereignty is of great importance considering the need to establish monetary stability and cooperation at the national, European and international level. Domestic lawyers lack sophisticated knowledge from this branch of law, which confirms its importance and place in the framework of special syllabi at law schools.

Keywords: monetary law, law of central banks, monetary stability, monetary sovereignty, lex monetae, EU.

1. Introduction

The emergence of new legal disciplines in practice is not such a common phenomenon. The term “law” is often mechanically used to denote legislative actions of certain institutions or the normative regulation of certain social

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and economic phenomena, it does not immediately imply the establishment of a new legal discipline, which rests on meeting all necessary developmental stages, methodological and other conditions that a branch of the legal order must satisfy to be treated as a legal discipline.

Monetary law, in contrast to the law of central banks, is not a “new” legal discipline but its subject matter and content were either unjustifiably omitted in the academic education of lawyers or partially and unskillfully studied along with some other branches of law, which was particularly prominent in the domestic academy (in the area of private law) in a period when there was no intensive monetary integration and monetary cooperation between countries. Each of these disciplines has modern nomotechnics, sophisticated methodological instrumentation, and a multi-jurisdictional approach to regulating challenging and complex socio-economic relations in a context that does not oppose and does not strictly insist on such orthodox (and very often redundant) demarcation lines between hard and soft law, substantive and procedural sources of law. Quite the reverse, the sublimation of these approaches induces a higher level of creative and constructive synergy, which would enable the establishment of a suitable and sustainable legal instrument for the regulation of dynamic monetary relations. In this sense, the systematic study of these legal disciplines contributes to broadening knowledge and opening new horizons, both for legal theoreticians and practitioners who will thus acquire narrowly specialized but much-needed knowledge required for optimal legal regulation of public money flows.

In the broadest sense, the legal regulation of monetary flows and relations in contemporary economies must be guided by special legal norms, which are the result of the action of the central bank as the supreme monetary institution within the state apparatus. In this context, we can make a distinction between monetary relations in a narrower and a broader sense. Monetary relations in a narrower sense concern the legal definition of the concept of money, the issuance and emission procedure, the monetary strategy and operations of central banks. Monetary relations in a broader sense arise when countries join monetary unions, establish membership in international monetary organizations and opt for judicial and arbitration settlement of monetary disputes which are subject to full implementation of active and passive procedural legitimation of central banks. Namely, the monetary norms regulating the concrete legal and economic factual situation, which are based on and aimed at realizing some of the above-mentioned forms of monetary relations, are created as a result of actions of monetary law subjects and the law of central banks. Today, these two disciplines are closely
related in terms of subject matter and content but, concurrently, they are also independent positive branches of the legal order.

In this sense, contemporary monetary law entails the totality of norms that regulate monetary and currency relations within a country and in relations with other countries, as well as the actions of institutions that are involved in the process of creating and implementing such norms (Altshuler, 1988: 24-26). On the other hand, the law of central banks refers to the entirety of legal norms that govern the organizational structure, jurisdiction, tasks, and functions of the supreme monetary institution in the national, European, and international legal environment, understood in the broadest sense of the word (Gortsos, 2020: 1-5). As indicated by its name, it is the body of law created and applied by the central bank; however, the contemporary practice shows that the genesis of its definition is also related to the contribution of other institutions which had a significant role in shaping the substantive and procedural legislation on this matter either directly or indirectly.

2. A brief overview of the historical development of monetary law

Until recently, there was a relatively small number of works in domestic legal science dealing with the normative regulation of monetary relations in a way that methodologically corresponds to the principles of monetary law and the law of central banks. For years, many questions concerning the process of creating and using money were traditionally processed within certain segments of financial law and real law, as well as private international law in the part concerning the collision of monetary claims with foreign elements. Thus, monetary law was perceived as part of civil law and defined as a set of legal norms that, regulating relations within the boundaries of one legal area, conceptually imply money and monetary relations (Meischner, 1981: 39).

This understanding of the subject matter of regulation and the content of monetary law no longer corresponds to the circumstances of monetary reality because it does not take into account significant factors concerning the operation of the international monetary system and international monetary and financial organizations, monetary integration, foreign exchange relations and extraterritorial effects of national monetary regulations. As a part of the economic order where monetary regulations regulate and protect the monetary system of a country, the monetary order in the mid-20th century was not nearly as developed and complex as it is today, both at the national and international level. Regardless of this fact, the concept of monetary sovereignty, which is the backbone of the monetary order because it entails the
sovereign right of each state to define money and direct money flows, had to be seen within a broader legislative framework (not only civil law). In effect, the perception of the concept of monetary sovereignty (including its manifestations, conditions and obstacles for exercising it outside the territory of the domestic monetary jurisdiction) is essential for the subsequent theoretical shaping of the norms of classical monetary law.

Today, when regulating monetary relations, the legislator must also take into account the standards and principles of public monetary management that are created and applied in their work by institutions such as the International Monetary Fund (IMF), the European Central Bank (ECB), the World Bank (WB), and Bank for International Settlement (BIS). In this sense, we can say that the relationship between monetary law and the law of central banks resembles to some extent the relationship between general and special branches of law; gaps in monetary law regulations from the domain of hard legislation are filled in by soft law norms created by the central bank, which best confirms their relevance and significance in extraordinary circumstances such as financial and economic crises, debt crises and the like. Nevertheless, this relationship should be perceived in a provisional context because the law of central banks represents a specific legal discipline which regulates many issues in a way that embodies the expression of the sovereign monetary authority; therefore, its acts cannot (always) have an accessory character, nor are they exclusively aimed at supporting monetary law mechanisms. Due to its flexibility and quick adaptation to emerging social and economic circumstances that require immediate response (in order to preserve monetary stability as a public good and prevent damage to the reputation of the monetary system), the law of central banks can rightly be called a par excellence example of the law of necessity or emergent law. It can be seen in cases where the central bank adopts special programs on behalf of the state and applies various monetary policy measures (Dimitrijević, 2022: 43-45). Although the development of contemporary monetary and legal thought coincided with the more intensive liberalization of foreign trade relations and the constitution of international monetary and financial institutions, it is important to emphasize the hybrid nature of monetary law norms. It was first pointed out in 1939 by the prominent public law professor Arthur Nussbau. In his work "Money in the Law", he indicated the hybrid character of monetary law norms, which contain elements of public law and private law relations (Nussbaum, 1939: 2-3; Nussbaum, 1950: 317-318). Today, monetary law is still a sui generis legal discipline but it is still closer to the branch of public law, particularly in terms of the field of action and the fact that it
applies the principles of public law as a subsidiary. On the other hand, the law of central banks is *de facto* a public law discipline; but, in contemporary practice, it is important to obtain the material for monetary management *de lege artis* expediently, by applying the norms of monetary law; thus, their cooperation of the two disciplines and their synergy in devising the best solutions is essential for ensuring predictability and certainty in the development of monetary flows.

The topicality of monetary law and the laws of central banks also stems from the fact that controlling and directing various monetary problems in practice produces direct effects on the scope of rights and obligations of subjects participating in monetary relations. It is worth noting that many monetary problems throughout history could not be solved at the time; thus, the burden was passed on to the future generations, which can best be seen in the example of the consequences of hyperinflation, oil crises and the collapse of the domestic monetary system (Hirschberg, 1976: 252-279; Hirschberg, 1981: 89-93). Monetary law and the law of central banks were created as an expression of contemporary legislative activity aimed at resolving the economic problems of the state. For a long time, traditional legislation paid attention only to the prevention of crises emerging in the form of war conflicts or political revolutions but, over time, it became clear that special legal rules must be established for the prevention and resolution of economic crises in all their forms (financial, monetary, public debt crisis and others).

We find the true meaning and social justification of studying monetary law and the law of central banks in preventing the occurrence and controlling the harmful effects of recessions. Symbolically speaking, monetary law is a valuable response of legal science to the changes accompanying the law of value (economic legality) when the scope of legal rules in the monetary sphere is tangible. Therefore, monetary law must be treated as a branch of modern jurisprudence, particularly in the circumstances where the law of value proves to be rather unstable in all economies of the world. Monetary law is woven into the very foundations of the overall legal architecture in such a way that, even in the circumstances where the law of value remains unchanged in space and time, it does not imply the need to abolish monetary law; it may only point to its indisputable theoretical significance but reduced practical significance.

It is clear that the monetary problems of the pre-war and post-war economies are very different in terms of their causes and consequences, but what appears to be a universal problem in all monetary jurisdictions of the world is inflation; it may be different only in the degree of manifestation, not in
its kind, which must be borne in mind when analyzing monetary law institutes (Hirschberg, 1978: 219-220). In the period of the early development of monetary law, it became clear that its extraterritoriality cannot be ignored. During the development of international monetary law, the conflict of public versus private interest was even more prominent (Hirschberg, 1976: 226-230). Today, all branches of law must aim to protect both private and public interests, but it is necessary to establish an appropriate balance in this protection and determine priorities in certain cases. Historically speaking, monetary law was created to protect state interests but, over time, the share in protecting private interests also increased; thus, the previously explained hybrid nature of monetary law norms may be an advantage in the circumstances where public and private interests need to be reconciled in an optimal way. Legislators’ misunderstanding, i.e. equalizing economic regularities with legal regularities, made it difficult to develop and apply monetary legal thought even in the initial phase of its development, when the necessity of providing optimal legal regulation of monetary problems was recognized. In the circumstances of the legislators’ passivity in providing adequate regulation of the monetary law matter, the only possible form of legal reform was the “bottom-up” reform, initiated by the citizens within a certain monetary jurisdiction. It sometimes seems that monetary law has a strategic position between the causes of inflation and the resistance to inflation; but, in its current form, it does not provide a full contribution to society in resolving current economic problems. Therefore, it must be borne in mind that the work on the development of monetary law and the law of central banks must be carried out continuously because it is a reflection of the additional dimension of the problem of financing economic development and reaching full employment, i.e. financing social and economic progress. For this reason, which it must not be treated as an autochthonous field of law.

3. Classification and sources of the contemporary monetary law

It is our opinion that contemporary monetary law entails the totality of legal norms that regulate the manner of ensuring and exercising the judicial protection of state monetary prerogatives in the domestic and international environment in the broadest sense (Dimitrijević, 2018: 19-20). This approach may lead to devising more concise definitions, which would, provisionally speaking, make a clear distinction between the subject matter of study of procedural and substantive monetary law. Procedural monetary law would regulate the entirety of legal norms that determine the conditions for the establishment, operation, and jurisdiction of monetary institutions (central
banks). Substantive monetary law would regulate the content of public monetary legal relations in the context of regulation of the national monetary system, but also in the context of regulation of monetary relations including a foreign element and extraterritoriality (the area of public debt management and the provision of financial assistance). In the circumstances of intensive monetary integrations, which may be best observed in the example of the European Economic and Monetary Union (EMU), the scope of such classifications remains tentative because the creators of monetary unions have to ensure that the norms of both monetary law and the laws of central banks are mutually harmonized to the greatest extent possible.

In addition, the subject matter of monetary law can be approached according to the criterion of territorial validity of monetary law norms. Thus, provisionally speaking, we could make a distinction between international monetary law with a narrower (regional) application, such as European monetary law (more precisely, monetary law of the European Union), and global monetary law (such as the law of the IMF, World Bank, and the Bank for International Settlements). International monetary organizations (such as the IMF, the World Bank, and the ECB) are much more than ordinary international organizations because their actions significantly influence the pillars and physiognomy of the entire international order. It means that they not only apply the existing law but also create their law, whose addressees are the state and international monetary entities that look up to them and are at a lower level of the hierarchical ladder.

In terms of legal sources, we may distinguish between primary and secondary sources of monetary law. The primary sources are contained in the legal provisions regulating the area of monetary policy, primarily the law on the activities of central banks and all accompanying by-laws aimed at regulating the area of public monetary operations. In the circumstances where countries accede to international monetary and financial organizations and monetary unions after the ratification the founding treaties of the EU (Treaties of Maastricht, Amsterdam, Nice, and Lisbon), these international treaties and the protocols on cooperation with the IMF, the World Bank (etc.) can be included in the corpus of primary sources in the part concerning monetary policy.

Secondary sources of monetary law are embodied in the provisions of the so-called soft law, which is elaborated by the norms of secondary legislation: central banks’ statutes, monetary strategies, programs and measures applied by central banks in circumstances of economic disturbances. In EU monetary law, *sui generis* interstate agreements from the domain of the
new model of macroeconomic management in the Eurozone have a special place among the secondary sources (e.g. the Agreement on the European Stabilization Mechanism, the Agreement on Coordination, Management, and Stabilization in the EMU, i.e. the Fiscal Agreement). The legal nature of these agreements was the subject matter of consideration before the constitutional courts of the EU member states and later the ECJ because of their non-compliance with the provisions of primary legislation in the sphere of centralized monetary policy. It is characteristic of the mentioned secondary sources that they were created as an institutional response of the EU to the consequences of the global financial crisis; thus, their primary ratio was the protection of economic stability of the Eurozone rather than legal security, which is an atypical situation; yet, it was required by the development of events in order to preserve the stability of the Eurozone. The rigidity of hard law cannot follow the dynamics of monetary relations, because the process of amending laws (and especially international agreements) is quite complicated and burdened with technocratic requirements in practice. Thus, the flexibility of soft law is its advantage in newly emerging economic circumstances that the legislator could not have foreseen at the time of shaping primary legislation (Golubović, Dimitrijević, 2020: 10-13). In this regard, judicial and arbitration practice in the field of application of monetary law are also a significant source of both legal disciplines.

Using the aforementioned analogy with the classification of sources in monetary law, we can make a provisional distinction between primary and secondary sources of law of central banks. The primary sources are the constitutional and legislative provisions governing the establishment, operation, and jurisdiction of central banks. These sources are general, but they are the cornerstone for further development of by-laws and formulation of the new dimension concerning the competences of central banks within the economy of a state, and secondary sources of law embodied in guidelines, programs, and decisions of central banks. Thus, at the EU level, the primary sources are certain articles of the Maastricht Treaty (Art. 3 and Art. 13), the Treaty on the Functioning of the EU (Art. 119-126, Art. 127-133 and Art. 134-144, Art. 219, 282, 283, 284, 340 and 343), the Statute of the ECB (Art. 3-50) and the Second Protocol on the Statue of the ECB (Art. 12-18) (Siekman, 2022: 11-35).

4. Principles of monetary law
The principles of monetary law were originally determined exclusively by the sources of national monetary law and, as such, had a prominent terri-
torial dimension and limited application. However, in the circumstances of globalized economic and financial flows, these principles acquire certain extraterritorial elements. There is a large number of different monetary jurisdictions in the world (the term “jurisdiction” corresponds to the state territory where its monetary legislation is applied) which may differ from each other in terms of decisions concerning the mandate of central banks, the guarantees for their independence, the exercise of supervisory functions and other relevant issues (due to the impact of the aforesaid factors). Nevertheless, we can observe a tendency towards a partial unification of the substantive law conceptions on the preservation of monetary stability and enabling sustainable monetary cooperation.

The basic principle of monetary law is the principle of *lex monetae*, which implies the sovereign right of each state to determine what money is and what will have the function of money within its borders; in the broadest sense, it refers to determining the currency unit and its subunits, as well as concrete objects which have the status of a legal tender (Wahlig, 2000: 122-123). In the event of a change in the official currency unit, the validity of this principle is particularly important due to the protection of the interests of citizens and creditors of the public debt, but also the state as a debtor, given that such conversions can have serious legal and economic consequences. This principle is now widely accepted by all monetary jurisdictions. It was established and recognized in Article 2 (para. 7) of the Charter of the United Nations, as well as in the constitutions of all countries in the form of the so-called nominalism, i.e. the state theory on the legal definition of the concept of money. The *lex monetae* principle can also be defined negatively, i.e. as the inability of states to influence the official definition of monetary units in other states.

In the monetary law literature, a distinction is made between the principles of *lex monetae* in the narrower and broader sense (Louis, 152-154). The narrower definition implies the exclusive right of the state to determine its currency, while the broader definition refers to the mechanisms of protection of that right, which are established by appropriate legislative acts and by-laws. The narrower definition was interpreted by the Committee on International Monetary Law of the International Law Association (MOCOMILA); the principle is understood as "the right of a state or a group of states that have a common currency to define or redefine a currency unit and to determine the exchange rate between the new and the old currency unit." Although the *lex monetae* principle (by its nature) primarily has a territorial application, in certain situations it can also have extraterritorial validity and application. These cases include depreciation, devaluation, non-revaluation of currency, and the imposition of foreign exchange controls (Proctor, 2012; 504-509).
The principle of *lex monetae* should not be confused with the principle of legal continuity (*lex contractus* or *lex cause*), which implies the freedom of will of the contracting parties to conclude a certain contract (Lastra, 2015: 16-17). The freedom to conclude a contract and determine all its essential elements and secondary elements is a universal principle of civil law; it can be significant in the field of monetary law and the law of central banks in case of bank loans and interventions by the central bank to protect the financial market and the interests of clients due to changed circumstances (which was the case with bank loans in Swiss francs in Serbia and many neighboring countries). On that occasion, the actions of the central banks were different, which can be explained by a different understanding of the scope and actual principles of monetary law in their tradition, but also by the (always) interesting question of real independence in the work of central banks, taking into account the widespread populist understanding of the central bank as a quasi-Vivaldian agency, which we cannot agree with. The scope of the *lex contractus* principle also includes the issue of legal protection of the interests of the contracting parties in the event of a change in certain circumstances under which the contract was concluded, i.e. the issue of its validity; in the field of monetary obligations, this issue has special consequences in case of the conversion of the currency in which the public loan contract was concluded in the field of international monetary law. This principle was particularly relevant in all phases of establishing the EMU, starting from the liberalization of economic and financial flows, through the creation of the European Monetary System and the introduction of the Euro. For this reason, Regulation 1103/97 confirmed the continuity of previously concluded contracts on monetary flows and transfers to protect the interests of the legal order, and especially the principle of already acquired rights (principle of retention).

5. On the usefulness of studying monetary law and its disintegration (law of central banks)

The basic reason for the scientific study of monetary law, as well as the law of central banks, concerns the preservation of monetary stability, which as a public good has implications both in the field of public administration and in the segment of preserving and protecting human rights and the citizens’ living standard (Golubović, Dimitrijević, 2020: 197-206). In international monetary and financial circumstances, states must strive to establish, regulate, and manage monetary relations in a way which is compatible with the hegemony of different national monetary goals but which also contributes to the preservation of international monetary stability and cooperation. It
certainly does not mean that the international monetary order is equally "benevolent" to all national monetary interests (Cohen, 1977:10-24) because the legislator often has to make trade-offs due to the conceptual disagreement between national and international monetary policy programs; however, the limitation on the choice of measures in determining monetary targets is replaced by the legal force of the international monetary instrument, which has a wider field of application, measures of financial and monetary support, and expedient monetary cooperation.

From the present-day point of view, the process of disintegration of the monetary law of the European Union and the independence of the law of the European Central Bank from its body seems surprising in some sense because the monetary law of the European Union is a relatively young branch of law which, from a technical point of view when it comes to the process of disintegration of legal matter (Dimitrijević, 2023: 300). The European Central Bank received confirmation of its institutional status relatively late, only upon the adoption of the Lisbon Treaty (2009), which speaks in favour of the fact that it is a short period for the specialization of knowledge created within the ECB legal framework. Nevertheless, the evolution of its jurisdiction had a grandiose and unpredictable qualitative and quantitative path, during which there was an increasing downstream (top-down) specialization concerning the content of monetary law norms; in that process, the general norms that define the basic axiological tools of contemporary monetary law as a legal discipline have evolved into the specific regulation of concrete monetary relations emerging and developing (with all their primary and secondary legal consequences) outside the field of application and action of general monetary norms.

6. In lieu of conclusion

Leaving aside the previously analyzed tendencies of subsuming monetary legislation and central banks legislation under the domain of civil law, which are completely unsustainable and unacceptable today more than ever before, there is a need to systematize the institutes and principles of monetary law and the law of central banks into special syllabuses that would give students an opportunity to study this branch of law systematically and analytically. Taking into account the need for continuous education of lawyers, including those working in academic circles as well as practicing lawyers who need to acquire narrowly specialized knowledge in the domain of public monetary operations, there is a real and logical need to introduce the discipline
of monetary law and the law of central banks into the domestic law faculty curricula. It would also be the acknowledgment of the contemporary trend in the European-continental and Anglo-American legal system, where these legal disciplines are studied in a large number of other higher education institutions. IMF law has also been studied as an independent science for decades. In addition, the law of the World Bank, the law of the EMU, and the law of monetary policy coordination are the best illustration of the accelerated development and factual importance of these disciplines, both for the smooth functioning of the state and in everyday life.

Monetary law has been studied as an independent subject at the Faculty of Law, University of Niš, since 2020 as a course at the Department of Legal and Economic Sciences (Law and Economics). The European Commission has significantly contributed to establishing this course by providing valuable support in the implementation of specialized courses within the Jean Monnet module for European Monetary Law (2020-2023) within the framework of ERASMUS+ activities aimed at higher education institutions. On that occasion, the students of the Law Faculty Niš, had an opportunity to systematically and critically study the problems of normative and economic efficiency of fiscal rules in the European Union, to explore their impact on domestic monetary legislation, to examine the distinctive features and outcomes of monetary disputes where the implementation of full active and passive procedural legal standing (locus standi) of European monetary agents; hence, establishing the monetary jurisdiction of the European Court of Justice comes to the fore. In the context of European integration, students were introduced to the issue of legal mechanisms of macroeconomic management in the European Monetary and Economic Union, i.e. interstate agreements aimed at ensuring legal and economic stability in the EU.

The study of monetary law and the law of central banks as independent legal disciplines is aimed at acquiring specific theoretical and practical knowledge about the legal regulation of monetary relations of a public law character, the structure of monetary sovereignty and its modifications in the process of monetary integration, the basic principles of monetary legislation at the internal and extraterritorial level, the sources of law, the hybridization trends and the social justification of these positive law disciplines. The comprehensive and systematic study is aimed at acquiring specialized legal knowledge for the optimal resolution of monetary disputes in the European legal space. In addition, students have been provided a unique training opportunity to study international contracts and documents from the domain of European and international monetary law, and to participate in the work of international
monetary institutions. It may significantly expand their employment prospects and open new perspectives in planning their future legal profession.

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