

الدراسة الخامسة:
**Phenomenon of Digital Money Between
Concept and Regulation**

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There is no doubt that money plays a major role in economic life by performing many functions where the most important one is financial mediation in exchanges whether local, regional or international. Therefore, money has witnessed a great development over time, starting from coins, passing through paper currency and ending with digital money.

The main objective of this topic is the fact that this digital money exists and spreads significantly, which indicates their promising future in the absence of legislative regulation for them. So, knowing what different types of digital money are, their types, characteristics and reasons for their emergence is very important to determine their pros and cons.

Moreover, digital money is considered a controversial topic where it suggests a new idea changing a lot of rules enshrined for a long time. Wherefore, countries pursue to absorb this phenomenon through issuing laws organizing the currencies which resulted in, or prohibiting it as a foreign object entered the legal system.

From here, this topic is governed by a problematic one which revolves around the notion of digital money where there are many questions arising, beginning with knowing what digital money is and reaching its most important characteristics and advantages at all levels. So, the question first arises from the concept of digital money and its fluctuation between its possibility of being centralized or decentralized.

Second, there are a lot of differences between digital money and traditional money. Also, digital money itself is divided into several types where it multiplies to electronic money, central bank digital currency, cryptocurrency and stablecoin.

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Hence, what are the differences between digital money and fiat currency? And among digital currencies themselves?

Finally, given that digital money is not subjected to a specific legal system that governs it but rather to certain technological methods which control their issuance, the question is posed about the nature of the supposed legal regulation of digital money.

In order to reach the desired goal of establishing a legal regulation of digital money, it is necessary to follow the analytical and comparative approach, by extrapolating and analyzing this new phenomenon, starting from the part towards the whole and comparing the conclusions with the applicable legal rules in other countries. It's all through tackling digital money as a new legal concept (**Part 1**) and approximating the regulation of digital money between tugging and matching (**Part 2**).

○ **Part 1: Digital Money as a New Legal Concept**

While the fiat currency still dominates the financial transactions in the world, new innovations in the technological field are prompting the search for fertile ground in which digital money grows and serves as an alternative to traditional money or at least complement to its work.

The overlapping of digital currencies makes it difficult to find an accurate and decisive criterion to distinguish between them. However, the issue of financial centralization and decentralization remains the dividing line that demarcates the limits of the powers assumed by each currency and defines the characteristics of each type. Therefore, the starting point in researching the types of digital currencies starts from the idea of centralization and decentralization, so what are centralized digital currencies? (**Chapter 1**) What are decentralized digital currencies? (**Chapter 2**).

• **Chapter 1: Centralized Financial System**

Centralized financial system is based on the traditional system which confines the issuance of money in specific institutions stipulated by the laws. However, the matter of digital money assumes a development in traditional money where it is represented by two concepts: first, electronic money forms a new development that links the issuance of it to private institutions (**Section 1**). Second, central bank

digital currency maintains the issuance of money through the central bank, but it inspires the digitalization from this first type (**Section 2**).

▪ **Section 1: Electronic Money**

Electronic money is considered as the first type shaping the phenomenon of digital money where the progress of technological and technical means requires the existence of a new system alternative to traditional money. This reality imposes on regulators to focus on the integrity of the overall payment system.

Electronic money (e-money) is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to entities other than the e-money issuer. The device acts as a prepaid bearer instrument which does not necessarily involve bank accounts in transactions⁽¹⁾.

Also, electronic money shall mean monetary value which is stored electronically on an electronic device such as a chip card or a computer memory, accepted as means of payment by undertaking other than the issuing institution, generated in order to be put at the disposal of users to serve as an electronic surrogate for coins and banknotes and generated for the purpose of effecting electronic transfers of limited value payments⁽²⁾.

Moreover, electronic money is divided into two forms: first, the multi-purpose prepaid card or electronic purse which is defined as a plastic card which contains real purchasing power, for which the customer has paid in advance (card-based products). Second, electronic money products which employ specialized software on a personal computer, typically allowing the electronic value to be transferred via telecommunications networks, such as the Internet (software-based products)⁽³⁾.

⁽¹⁾ European Central Bank, Electronic Money, Available on the website: https://www.ecb.europa.eu/stats/money_credit_banking/electronic_money/html/index.en.html, (accessed 08/10/2022); In the same meaning, look: Article L315-1, Code monétaire et financier en France, Modifié par LOI n°2013-100 du 28 janvier 2013 - art. 5, https://www.legifrance.gouv.fr/codes/texte_lc/LEGITEXT000006072026/2022-04-08/, (accédé 09/10/2022).

⁽²⁾ Article 1, Proposal For a European Parliament and Council Directive on the taking up, the pursuit and the prudential supervision of the business of electronic money institutions, Official Journal of the European communities, C 317/7, 15/10/1998.

⁽³⁾ European Central Bank, Report on Electronic Money, Germany, 1998, P. 7, Available on the website: <https://www.ecb.europa.eu/pub/pdf/other/emoneyen.pdf>, (accessed 09 /10/2022).

In addition, the idea of electronic money resembles credit cards where these two means require physical cards and devices which lead to transfer the virtual value represented by electronic form to real currency. However, credit cards differ from electronic money which does not need a bank account.

Finally, there is a lot of electronic money used in many countries such as money from Proton and Mondex which are based on Hardware and money from PayPal and DigiCash which are based on Software.

■ Section 2: Central Bank Digital Currency

Despite the lively debate on the merits of CBDC, no widely accepted definition of CBDC has yet emerged⁽¹⁾. Hence, central bank digital currency is not a well-defined term where it is used to refer to a number of concepts. However, it is envisioned by most to be a new form of central bank money. That is, a central bank liability, denominated in an existing unit of account, which serve both as a medium of exchange and a store of value⁽²⁾. In another term, CBDC is a new form of money, issued digitally by the central bank and intended to serve as legal tender⁽³⁾.

From here, we can say that the key distinctive feature of CBDC is that it is digital. But, the question which poses itself is whether CBDC is considered a type of electronic money?

As a rule, the regulatory framework of electronic money consists of rules on the licensing of electronic money institutions, their required initial capital and own funds, general prudential rules, oversight, as well as rules safeguarding funds received in exchange for electronic money. In most countries, the legal framework contemplates the issuance of electronic money by private institutions⁽⁴⁾. In

⁽¹⁾ Jason Allen, Rosa Lastra, "Virtual Currencies in the Eurosystem: Challenges Ahead", Vol. 53, No. 2, *The International Lawyer*, USA, 2019, P. 177.

⁽²⁾ Committee on Payments and Market Infrastructures, "Central bank digital currencies, Bank for International Settlements", March 2018, P. 3, Available on the website: <https://www.bis.org/cpmi/publ/d174.pdf>, (accessed 16/10/2022).

⁽³⁾ Mancini-Griffoli Tommaso, Maria Soledad Martinez Peria, Itai Agur, Anil Ari, John Kiff, Adina Popescu and Celine Rochon, Casting Light on Central Bank Digital Currency, IMF Staff Discussion Note, November 2018, P. 7, Available on the website: <https://www.imf.org/-/media/Files/Publications/SDN/2018/SDN1808.ashx>, (accessed 16/10/2022).

⁽⁴⁾ Wouter Bossu, Masaru Itatani, Catalina Margulis, Arthur Rossi, Hans Weenink and Akihiro Yoshinaga, Legal Aspects of Central Bank Digital Currency: Central Bank and Monetary Law Considerations, International Monetary Fund, 2020, P. 6-7, Available on: <https://www.imf.org/-/media/Files/Publications/WP/2020/English/wpiea2020254-print-pdf.ashx>, (accessed 16/10/2022).

contrast, CBDC must be issued from the centralized bank which is considered the responsible institution to issue legal tender.

Nowadays, several countries are trying to issue a central bank digital currency through presenting bills which study the characteristics of this new currency. For example, European central bank contemplated to launch CBDC called digital euro which is represented by the following characteristics⁽¹⁾: first, convertibility at par: not a parallel currency. Second, liability of the Eurosystem: a digital euro is central bank money and its issuance is controlled by the Eurosystem. Third, European solution: widely accessible on equal terms in all euro area countries through supervised service providers. Fourth, market neutrality: not to crowd out private solutions and finally, trusted by end users: trusted solutions from the start and over time.

Also, there is a bill⁽²⁾ in the USA which requires the Board of Governors of the Federal Reserve System to report on the impacts of the introduction of a central bank digital currency (CBDC) on consumers, businesses, monetary policy, and the U.S. financial system.

Finally, China is considered the first country which launched a central bank digital currency called E-CNY that is the digital version of fiat currency issued by the PBOC and operated by authorized operators. It is a value-based, quasi-account-based and account-based hybrid payment instrument, with legal tender status and loosely-coupled account linkage⁽³⁾.

• Chapter 2: Decentralized Financial System

Virtual currency represents the kernel of a decentralized financial system where it dedicates a new concept changing the applicable rules in the world of money. It is defined as a digital representation of value, not issued by a central

⁽¹⁾ European Central Bank, Eurosystem, Report on a digital euro, Annex 1, https://www.ecb.europa.eu/pub/pdf/other/Report_on_a_digital_euro~4d7268b458.en.pdf, October 2020, P. 48, (accessed 17/10/2022).

⁽²⁾ H.R.2211 - Central Bank Digital Currency Study Act of 2021, United States Congress, Available on the website: <https://www.congress.gov/bill/117th-congress/house-bill/2211?q=%7B%22search%22%3A%5B%22H.R.2211%22%2C%22H.R.2211%22%5D%7D&r=1&s=1>, (accessed 18/10/2022).

⁽³⁾ Working Group on E-CNY Research and Development of the People's Bank of China, Progress of Research & Development of E-CNY in China, July 2021, P.3, Available on: <http://www.pbc.gov.cn/en/3688110/3688172/4157443/4293696/2021071614584691871.pdf>, (accessed 18/10/2022).

bank, credit institution or e-money institution, which in some circumstances can be used as an alternative to money⁽¹⁾.

Therefore, virtual currencies which are digital representations of value are issued by private developers and denominated in their own unit of account. VCs can be obtained, stored, accessed, and transacted electronically, and can be used for a variety of purposes, as long as the transacting parties agree to use them⁽²⁾.

However, virtual currency is a cornerstone of the existence of decentralized currencies where it inspired the development of this decentralized financial system through innovation cryptocurrency (**Section 1**) and stablecoin (**Section 2**).

▪ **Section 1: Cryptocurrency**

First of all, the concept of virtual currency is applied to the concept of cryptocurrency which represents digital units (values) that are issued and traded on distributed database technologies such as Blockchain technology with the help of cryptography, which allows them to be safely traded between different parties without the need of prior knowledge between them or an intermediary to carry out the clearing⁽³⁾.

Therefore, these concepts of cryptocurrency and virtual currency refer to group of characteristics which create drawing features of this new form of digital money where the following legal effects result: dedicating the principle of decentralized system, canceling the role of financial intermediation, eliminating the need of centralized organization and working without the existence of financial, economical and lawful regulations.

In addition, Bitcoin is the first currency on top of the list of cryptocurrencies where it sparked in 2008 the new financial system based on decentralization through invention a new technique called a Peer-to-Peer that forms a electronic cash system⁽⁴⁾. Moreover, the determination of the legal nature of this new

(1) European Central Bank, Virtual Currency Schemes: a further analysis, February 2015, P. 4, <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf>, (accessed 20/10/2022).

(2) IMF Staff Team, Virtual Currencies and Beyond: Initial Considerations, International Monetary Fund, January 2016, P. 7, Available on the website: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>, (accessed 21/10/2022).

(3) معتز أبو جيب، أشرف هاشم، أنواع العملات الرقمية المشفرة، بحث مُقدّم لندوة العملات الإلكترونية، مجمع الفقه الإسلامي الدولي، ٢٠١٩، ص ٥، <https://kantakji.com/files/QtlrYLgYY.pdf>، تاريخ الوصول: ٢٠٢٢ / ١٢ / ٠٣.

(4) Satoshi Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System, Available on the website: <https://bitcoin.org/bitcoin.pdf>, (accessed 23/10/2022).

currency is controversial, where some⁽¹⁾ considered that it is money, payment system, asset, commodity and financial instrument in a 'one bottle'.

In contrast, the concept of cryptocurrencies did not only stop at borders of digital money but also became programmable with Ethereum currency that can build and deploy decentralized applications on its network.

From here, Ethereum being programmable means that it can build apps that use the blockchain to store data or control what any app can do. This results in a general purpose blockchain that can be programmed to do anything. While Bitcoin is only a payment network, Ethereum is more like a marketplace of financial services, games, social networks and other apps that respect the privacy and cannot censor the users⁽²⁾.

▪ Section 2: Stablecoin

Stablecoin forms a new stage of development of cryptocurrency where it tries to build a new structure combining the technology of cryptocurrency and the rules of the centralized financial system. This matter raises a question whether this new currency is centralized or decentralized.

At first, stablecoin is defined as basically a digital token that will have low price volatility as a result of being pegged to some underlying fiat currency, thereby acting as a store of value, a medium of exchange and unit of accounting for blockchain payments⁽³⁾.

Stablecoins are generally created, or "minted" in exchange for fiat currency that an issuer receives from a user or third-party. To maintain a stable value relative to fiat currency, many stablecoins offer a promise or expectation that the coin can be redeemed at par upon request. These stablecoins are often advertised as being supported or backed by a variety of "reserve assets"⁽⁴⁾.

⁽¹⁾ فلاننين كاتسونوف، العملات الرقمية المشفرة: الطريق إلى معسكر اعتقال إلكتروني، الطبعة الأولى، دار التكوين للتأليف والترجمة والنشر، سورية، ٢٠٢٢، ص ١١١.

⁽²⁾ Ethereum, The Foundation For Our Digital Future, Available on the website: <https://ethereum.org/en/what-is-ethereum/>, (accessed 23/10/2022).

⁽³⁾ Makiko Mita, Kensuke Ito, Shohei Ohsawa, Hideyuki Tanaka, What is Stablecoin?: A Survey on Price Stabilization Mechanisms for Decentralized Payment Systems, Japan, 2019, P.1, https://www.researchgate.net/publication/333815432_What_is_Stablecoin_A_Survey_on_Price_Stabilization_Mechanisms_for_Decentralized_Payment_Systems, (accessed 28/10/2022).

⁽⁴⁾ President's Working Group on Financial Markets, Report on Stablecoins, November 2021, P. 4, https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf, (accessed 28/10/2022).

Moreover, stablecoins being a cashless instrument fit well into the global trend of cashless economy⁽¹⁾. Although that stablecoin is considered a new version to cryptocurrency, it lost a main feature of cryptocurrency which is the decentralization. For example, issuing Tether currency is done by a centralized authority⁽²⁾ but the exchange of Tether units is traded by blockchain⁽³⁾ in the same way of exchange of cryptocurrency.

Furthermore, Diem currency is considered another example which designs the nature of stablecoin, where although the association of this currency initially cloaked the Libra project⁽⁴⁾ in a libertarian aesthetic by associating it with buzzwords like decentralization and pseudonymity, it has now abandoned most of this rhetoric⁽⁵⁾ especially with Diem currency.

○ **Part 2: Regulation of Digital Money between Tugging and Matching**

In a world where cash has become just a few clicks on a computer mouse or on a smartphone button and plastic cards, and in which electronic banking and digital currency trading platforms have become a daily reality through millions of transactions, it has become necessary to prepare monetary policies that are consistent with this new reality and anticipate the future which is tugged between the centralized system represented by electronic money and the digital currency of central banks and the decentralized system represented by cryptocurrencies (**Chapter 1**) or which creates a new system that matches these two systems (**Chapter 2**).

⁽¹⁾ Hanna Kołodziejczyk, Klaudia Jarno, Stablecoin: the stable cryptocurrency, *Studia BAS*, 3 (63), Poland, 2020, P. 163, Available on the website: [http://orka.sejm.gov.pl/WydBAS.nsf/0/777F8C958E38005EC125862200300E36/\\$file/8.H.Kolodziejczyk_K.Jarno.pdf](http://orka.sejm.gov.pl/WydBAS.nsf/0/777F8C958E38005EC125862200300E36/$file/8.H.Kolodziejczyk_K.Jarno.pdf), (accessed 02/11/2022).

⁽²⁾ Cem Dilmegani, Tether USDT is possibly a scam but it can remain valuable, *AI Multiple*, November 2021, <https://research.aimultiple.com/tether/#:~:text=Tether%20Limi ted%2C%20the%20centralized%20authority,other%20than%20British%20Virgin%20Islands.&text=Yet%2C%20tether%20still%20trades%20at%20about%20a%20dollar>, (accessed 02/12/2022).

⁽³⁾ Tether, What are Tether tokens and how do they work?, <https://tether.to/en/how-it-works>, (accessed 02/12/2022).

⁽⁴⁾ Diem currency was called Libra and these names are related to Facebook.

⁽⁵⁾ Americans For Financial Reform, *Banking On Surveillance: The Libra Black Paper*, 2021, P. 4, <https://ourfinancialsecurity.org/wp-content/uploads/2020/06/Libra-Black-Paper-FINAL-2.pdf>, (accessed 12/02/2022).

• **Chapter 1: Tugging Between Centralized and Decentralized Systems**

The new financial system which is based on centralized and decentralized systems assumes that one of the systems pursues to pull the interest of people, societies and countries. This issue creates the dilemma of tugging between centralized and decentralized systems.

Hence, this matter is posed on two levels: first, this new financial system is a creative method which presents itself as an interesting alternative against the traditional system (**section 1**). Second, digital money as a new financial system is tugged by a centralized system represented through electronic money and decentralized system exemplified by cryptocurrency (**section 2**).

▪ **Section 1: New Financial System Versus Traditional System**

In general, digital money is distinguished from legal money by a set of characteristics represented by the following: First, digital money is a monetary value stored electronically, as it is encrypted data placed on plastic cards, on a computer's memory, or on the Internet, while traditional money is a monetary value that is issued either in the form of paper or metal money.

Second, digital money is two-dimensional, meaning that it is transferred from the consumer to the merchant or between one person and another without the need for a third party. While in traditional money, there must be a third party in the case that both the seller and the buyer are in two different countries.

Third, digital money is not homogeneous in terms of value, or the number of goods and services that can be purchased with it, while traditional money is homogeneous and has different denominations.

Fourth, digital money is easy to use because it has no size and weight compared to traditional money.

Finally, digital money differs from traditional money in terms of issuance, while the issuance of paper or metal money is done by law, and mining them in a specific form issued by the Central Bank, which makes them obligatory for acceptance by all persons, so that no one can refuse dealing with it. Also, digital money is not issued by central banks in countries and is not subjected to their control or oversight. This makes it counted as money that is binding for all people

to accept it in transactions is a matter of consideration, and this raises the question about the nature of the digitally stored financial value of digital money⁽¹⁾.

Accordingly, the most prominent characteristics of digital money are: security and confidentiality, stored on electronic means, not linked to a bank account, acceptance of dealing and divisibility.

Moreover, electronic money has many features, most notably: ease of carrying, means to avoid infectious epidemic diseases, simple and easy to use and speed of its payment operations.

As a result, we can say that the characteristics and the features of digital money which are resulted from the difference with traditional money represent the advantages of digital money where this new development, as any technological development, pursues to facilitate the life of people and societies. However, the solution to the dilemma of tugging between centralized and decentralized systems raises the question about the differences between electronic money and cryptocurrency as the most important currencies which represent the centralized and decentralized systems.

▪ Section 2: Digital Money Between Evolution and Revolution

Although the new financial system which is based on digital money presents itself as a developed means leading to catching up the requirements of times, the reality refers to existing a lot of differences between centralized systems represented through electronic money and decentralized systems exemplified by cryptocurrency.

On the other hand, this reality assumes that the applicable rules on these new financial systems are still developing, meaning that the final form of the new financial system is still tugging between centralized systems and decentralized ones.

Therefore, there are a lot of differences between electronic money and cryptocurrency where at first, electronic money allows the possibility of modifying the transaction after it is conducted, either at the request of the person concerned in case of a specific fault, or at the request of the competent authorities in case of suspicion, for example, in money laundering operations or tax evasion.

⁽¹⁾ جمال عبد العزيز عمر العثمان، "الطبيعة القانونية للعملة الافتراضية والموقف التشريعي منها"، المؤتمر الدولي الخامس عشر لكلية الشريعة والدراسات الإسلامية بجامعة الشارقة: العملة الافتراضية في الميزان، جامعة الشارقة، ٢٠١٩، ص ٦٠٧.

As for cryptocurrencies, it is not possible to retract a transaction after it occurs, because the system on which these currencies are based does not provide the possibility of canceling, stopping or investigating any transaction⁽¹⁾.

Second, electronic money is usually issued by banking institutions or affiliated institutions. Hence, this development has forced central banks to issue electronic money belonging to them in the form of electronic currencies belonging to central banks. As for cryptocurrencies, they are decentralized in issuance, meaning that anyone can issue them if they buy the appropriate hardware.

Third, when talking about electronic money, it must be taken into account that it represents a specific financial value that is basically presented in the form of real money, but it appears electronically. As for cryptocurrencies, they do not exist in reality, but are just numbers that appear on the Internet.

Fourth, electronic money is universally accepted, and countries are seeking to catch up with this new development in the world of money. As for cryptocurrencies, so far they have not been accepted except in some rare cases, but without hiding that these currencies have had many effects that have been imposed on countries to control them through legal legislation⁽²⁾.

Fifth, electronic money does not depend entirely on the Internet, but it can be transferred or disbursed through specialized devices. While cryptocurrencies are based on programs that operate entirely on the Internet, meaning that in case of an interruption of this network, it is impossible to issue and trade these currencies.

Finally, electronic money results in less risks than cryptocurrencies, given that the first money is subjected to legal regulation and oversight by central banks, while the second has no legal regulation and no regulatory or supervisory body that supervises its work.

Consequently, the currencies which represent the centralized system form an extension of the traditional system confining the issue and the trade of money in centralized institutions with the difference that the private sector intervened to

⁽¹⁾ Karim Sultan, Umar Ruhi and Rubina Lakhani, *Conceptualizing Blockchains: Characteristics and Applications*, 11th IADIS International Conference Information Systems, Portugal, 2018, P. 53.

⁽²⁾ H.R.5083 - Cryptocurrency Tax Reform Act of 08/23/2021, United States Congress, Available on : <https://www.congress.gov/bill/117thcongress/housebill/5083/text?q=%7B%22search%22%3A%5B%22cryptocurrency%22%2C%22cryptocurrency%22%5D%7D&r=1&s=1>, (accessed 09/12/2022); Proposal for a Regulation Of The European Parliament And Of The Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 of 2020, EUR-Lex, Available on the website: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, (accessed 09/12/2022).

issue the money. So, we can say that the centralized financial system forms a new evolution in the financial world.

However, the currencies which represent the decentralized system build a new system destroying the rules enshrined for a long time. Then, the decentralized financial system is considered a revolution which changed the notion of currency. Thus, tugging between centralized and decentralized systems assumes that one of these systems will occupy the throne of the new global financial system.

• **Chapter 2: Matching Between the Two Financial Systems**

There is no doubt that the technological development which created the phenomenon of digital money assumes matching between traditional systems and new ones. To get there, we have to tackle first the effects of digital money whether it be centralized or decentralized currencies (**Section 1**) and then the methods of merging these currencies (**Section 2**).

▪ **Section 1: Effects of Digital Money**

Issuance of electronic money would affect the traditional payment systems, provided that this issuance, if not accompanied by regulation with sufficient guarantees to consider electronic money as a reliable and acceptable product for all its users, leads to float mismanagement, intrusion of counterfeit value, major technical failure and ultimately the failure of an issuer of electronic money which could have a negative impact on the credibility of various electronic money products and possibly even on other card-based payment products⁽¹⁾.

Also, in case that many types of electronic money spread rapidly, with their excessive issuance and this is accompanied by the absence of any legal or financial regulation for them, this may greatly affect the creditworthiness of exporters, and lead to the circulation of these money at different exchange rates, which affects on the unity of the market and the economy.

However, opinions differed in the impact of decentralized digital currencies on the role of the central bank in controlling credit and directing it towards targeted sectors, and two trends emerged⁽²⁾:

⁽¹⁾ European Central Bank, Report on Electronic Money, Op. cit, P. 14.

⁽²⁾ سالي سمير عبد المسيح، "الاستثمار في العملات الافتراضية"، المجلة القانونية الصادرة عن جامعة القاهرة فرع الخرطوم، المجلد ١٠، العدد ٧، ٢٠٢١، ص ٢٠٤٥.

The first trend believes that decentralized digital currencies weaken the role of the central bank in managing monetary policy and controlling credit, due to its inability to monitor and control its circulation, especially in terms of its spread and its increased use in electronic commerce, hyperinflation, political unrest, wars and financial crises, so that decentralized digital currencies can be an effective way to get rid of legal money.

The second trend believes that decentralized digital currencies do not have any tangible impact on the ability of the central bank to manage monetary policy because these currencies did not have a wide spread due to their limited acceptance and the majority of countries rejected them and considered their issuance and trading in them a crime punishable by law⁽¹⁾.

From here, the need becomes more urgent to establish legal, financial and banking regulations in line with this new development in payment methods, especially since most of the institutions that issue digital money are non-bank institutions, which raises a new question about the ability of the existing banking sector in front of these emerging technological developments.

▪ Section 2: Methods of Merging the Centralized and Decentralized Currencies

Talking about the matching between the centralized financial system and the decentralized financial system presupposes the question of the way that should be adopted to integrate these two systems. In other words, how can cryptocurrencies, virtual currencies, central bank digital currency and electronic money be combined?

The answer to this question assumes two mechanisms for integration between the centralized system and the decentralized system, so that this integration can be at the technical and technological level, or it may be at the legal and organizational level.

With regard to the first level, the merging of these two systems assumes specific technologies that will benefit from the blockchain technology which is the basis technology of decentralized digital currencies in order to launch a central

⁽¹⁾ المادّة ٢٠٦ من القانون رقم ١٩٤ لسنة ٢٠٢٠ والمتعلّق بإصدار قانون للبنك المركزي والجهاز المصرفي المصري، الجريدة الرّسمية المصرية، العدد ٣٧، تاريخ ٢٠٢٠/٠٩/١٥؛ المادّة ١١٧ من القانون رقم ١١-١٧ تاريخ ٢٠١٧/١٢/١٧ المتعلّق بقانون الماليّة العامّة الجزائري لعام ٢٠١٨، الجريدة الرّسمية الجزائريّة، العدد ٧٦، تاريخ ٢٠١٧/١٢/٢٨.

bank digital currency. Then, the central bank creates its own blockchain, allowing specific parties to access it in order to mine the digital currency, and then put it into circulation through special exchanges established for this purpose as some cryptocurrency exchanges⁽¹⁾.

This proposition is not considered new in itself where the development in the world of digital money necessitated the search for new currencies that address the disadvantages of decentralized currencies, especially in terms of their volatility and price instability, by creating stable currencies that rely on the blockchain as a technology to deal with them, but on the basis of a centralized system which is controlled by specific institutions.

As for the second level, issuing laws ensure homogeneity between all types of these currencies, so that decentralized digital currencies are recognized and included within the national payment system after they have found a place for them at the global level. In addition to this, we must work on issuing a central bank digital currency, allowing banks and financial institutions to issue electronic money and considering them the basis for dealing at the level of retail and national payments.

All the above methods don't ignore an important issue related to the fate of traditional money. In the first stage, it cannot be completely abandoned, given the need for the appropriate technical and technological infrastructure to be available and for people to accept dealing with it, as it requires knowledge of technological devices.

○ **Conclusion**

Finally, the issue of digital money is one of the main issues that occurred in the world of law and entered its broad door, announcing that a new phase of legal dealing with technological developments had begun, and with it the discussion began about the legal regulation of this new money.

Moreover, the topic of digital money comes to go off the track of applicable legal rules and presents new legal approaches in the midst of this accelerated development. All these are within a system that forces states, governments and

⁽¹⁾ Such as Binance, Gemini, and Coinbase.

societies to accept it as a new commensurate technology with the requirements of the development we are living through.

Therefore, the most prominent results of the research on the subject of digital money are reflected in the beginning, in the terminological understanding of the types related to digital money, so that it starts from electronic money and centralized bank digital currency which represent the centralized financial system, and continues with cryptocurrency and stablecoin that form the decentralized financial system.

In addition, dealing with digital money imposes itself as one of the most important topics that produces important effects on the level of legal regulation of this new phenomenon where this regulation fluctuates between tugging and matching of the centralized and decentralized financial systems.

Consequently, the issue of digital money is considered one of the fruits produced by modern technology where it has many characteristics such as novelty, innovation, flexibility and changeability according to the available technical capabilities. Therefore, the legal regulation of the issue of digital money must include a departure from the norm in the formulation of legal rules and a new shift in the law's handling of new technological phenomena.

In conclusion, the topic of digital money is related to several terminologies such as blockchain, digital wallets, peer to peer network, distributed ledger and mining which help to understand this new phenomenon and deeply affect the world of law. So, what are the relationships between these terminologies and digital money?