ASJP
Algerian Scientific Journal Platform

Review MECAS **V° 22/ N° 1/ June 2026**

Reflections on the Adoption of Central Bank Digital Currency: A Case Study of Algeria

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Received date: 25.03.2026, Accepted date : 09.05.2026, Publication date: 02.06.2026

Abstract :

With the increasing digitalization of transactions, the development of new technologies, and the emergence of crypto-assets, central bank digital currency (CBDC) has become a major issue for many central banks worldwide in recent years.

The objective of this study is to analyze the motivations behind the adoption of a central bank digital currency, as well as the consequences of such an innovation. It also aims to explore the opportunities that the issuance of a digital currency in Algeria could offer, in terms of improving financial inclusion, modernizing the national payment system, and reducing the informal economy.

Keywords : Central Bank Digital Currency, Digital Dinar, Financial Inclusion, Electronic Payments, Obstacles.
Jel Classification Codes : E42, E58, G28.

Introduction :

With the increasing digitization of transactions, the development of new technologies, and the emergence of crypto-assets, central bank digital currency (CBDC) has become a major issue for many central banks worldwide in recent years.

Indeed, the advent and success of cryptocurrencies have reinforced and amplified central bankers' distrust of them, leading them to explore CBDCs. As a result, several countries are currently experimenting with issuing CBDCs using the technologies that have contributed to the success of these private cryptocurrencies.

The concept of ‘‘Central Bank Digital Currency’’ (CBDC) has, therefore, become established within monetary institutions since 2016: almost all of them have already put new currencies of this type into circulation (Kosse & Mattei, 2022). The introduction of such an innovation will have profound consequences for the financial sector and particularly on the global banking system. With countries recognizing the need to promote the integration and interoperability of their currencies, this new infrastructure could greatly enhance domestic financial services, facilitate and accelerate cross-border transactions.

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The implementation of a public digital currency does indeed offer numerous advantages : strengthening financial stability and monetary policy, improving payment systems, and contributing to financial inclusion. However, while CBDCs may present opportunities, they could also pose a risk to banking stability, which must be considered : this new type of currency could, in particular, attract traditional bank deposits and reduce the profitability and solvency of banks. In our country, the Bank of Algeria announced the decision to adopt a central bank digital currency in December 2022, under the name “digital dinar,” in a context where the digitization of payments and financial inclusion are priorities. This project thus appears as a strategic opportunity for Algeria : inclusion, digitalization, combating tax evasion, and financial modernization.

However, the transformation of this adoption into a success on the ground will depend on the determination of the government and financial authorities, the confidence of operators, and that of citizens. It is important to consider the inertia of existing technological practices that could hinder its adoption and, above all, to address or eliminate the legal and regulatory uncertainties linked to this disruptive form of currency.

The objective of this work is to analyze the motivations behind the adoption of a central bank digital currency, as well as the consequences of such an innovation. It also aims to explore the opportunities that the issuance of a digital currency in Algeria could offer, in terms of improving financial inclusion, modernizing the national payment system, and reducing the informal economy.

To achieve our objective, we structured our work around two parts. The first presents a review of the literature and empirical data on central bank digital currency (CBDC). It aims to clarify the concepts discussed, present the main motivations put forward for adopting a CBDC, and highlight the potential risks associated with this innovation. The second part examines the economic and financial opportunities that could result from the introduction of a CBDC, namely the Algerian dinar. To this end, we relied on a qualitative and analytical approach, deemed the most appropriate for studying a project still in the planning and testing phase in Algeria. This approach combines a review of academic literature on CBDCs with a study of Algeria's macroeconomic and financial context, allowing us to identify the opportunities, constraints, and conditions for the successful implementation of the digital dinar.

1- Literature review on Central Bank Digital Currency :

Money, as it exists today, takes many forms and is constantly evolving, from commodity money to electronic money. With the digitalization of the economy and the development of cryptocurrencies, central banks are increasingly interested in digital currency as a potential replacement for traditional money.

A central bank digital currency (CBDC), is a digital form of central bank money, distinct from the reserve or settlement balances held by commercial banks (Bank for International Settlements, 2018, p. 3)

Furthermore, by CBDC we refer to a central bank granting universal, electronic, 24x7, national-currency denominated and interest baring acces to its balance sheet (Barrdear & Kmhof, 2016, p. 7)

In short, a central bank digital currency, also called digital fiat currency or digital base currency, is a new form of digital fiat currency developed, issued, managed, and controlled by the central banks of a country or monetary zone. It represents a claim for its holders and a liability for the central bank.

As such, it will appear on the liabilities side of the central bank's balance sheet (De Boissieu, 2023, p. 4). Like fiat currencies, central bank digital currencies will be used to quickly and securely execute transactions.

Beyond the traditional functions attributed to money (a means of payment, a store of value, and a unit of account), central bank digital currencies also aim to:

• Reducing intermediation costs and strengthening the security of transactions
• Replacing cash by developing a cashless society
• Combating money laundering and corruption
• Preserving national sovereignty in the face of private cryptocurrencies (Libra, Bitcoin, Ethereum, etc.).

Before developing the motivations related to the use of CBDCs, it is necessary to review the different types of CBDCs that are available.

1.1. Types of Central Bank Digital Currency

More generally in the literature, we distinguish between retail CBDCs and wholesale CBDCs

1.1.1. Wholesale Digital Currency (also known as ''Interbank'' or ''Wholesale'')

Wholesale CBDCs are designed for interbank transactions. This is why they are also referred to as interbank CBDCs, which exclusively concern central banks and their transactions with commercial banks and financial institutions.

They aim to reduce the costs associated with processing times and the involvement of various intermediaries (back offices, clearing houses, central securities depositories, and central banks) in certain banking transactions. Consequently, they would allow banks to reduce certain operational costs related to the financial system and improve their profitability.

Furthermore, they would contribute to unifying payment systems, both electronic and digital, and thus create a network effect, which would amplify their contribution as a new form of money.

1.1.2. Retail Digital Currency

A retail CBDC is a digital currency intended for the general public (individuals, businesses, and financial intermediaries). It represents a commitment from the central bank and is designed to be a digital equivalent of cash usable by households and businesses. It is, therefore, issued by the central bank, denominated in the national unit of account, and most often requires opening an account directly with the central bank. As such, it offers the general public a new option for holding money. It would allow the general public to send and receive payments locally or remotely, using central bank money. Thus, it would contribute to faster and cheaper payments and broaden consumer access to the financial system. It would be seen as an instrument for financial inclusion and for guiding monetary policy (Tshilonda, 2021).

Unlike a wholesale CBDC, a retail CBDC can be accessed and used by individuals and merchants as an alternative to existing banking and financial services. It can be used to store and transfer value, as well as to assess and price goods. It differs from other digital payment instruments in that it is a sovereign legal tender, guaranteed and supervised by central banks, that is, universally accepted, and can be exchanged without physical payment instruments (e.g., electronic money). It offers instant settlement.

To sum up, retail CBDCs are accessible to all for everyday payments, would provide a public and secure alternative to private payment solutions based on crypto-assets, while wholesale CBDCs concern interbank relations, could facilitate settlements in a multi-currency and cross-border context (De Boissieu, 2023, p. 4).

1.2. Reason for the development of Central Bank Digital Currency

Several reasons have led banks to take an interest in CBDCs, including :

1.2.1. Combating cryptocurrency instability

Digital currency emerged to counter the uncontrolled expansion of cryptocurrencies, which can be a source of financial instability (as they are not subject to a central monetary authority). Emerging in 2009 with the famous ‘‘Bitcoin,’’ cryptocurrencies, which rely on blockchain technology, are entirely virtual digital currencies used for online transactions.

These currencies, which are stored in digital wallets, are not issued by any central bank of a sovereign state. They constitute a real threat to the sovereignty and financial stability of countries because their money supply is regulated by a computer system controlled by private companies.

According to a study published by the University of Cambridge, the percentage of cryptocurrency users increased by 189% in the first quarter of 2020, compared to the same period in 2019. The world is estimated to have nearly 191 million active accounts across various cryptocurrency platforms, excluding holders of private digital or physical wallets (Cambridge Centre for Alternative, 2020, p. 45)

More recently, the number of cryptocurrency holders worldwide is projected to reach 562 million users in 2024. In 2023, only 420 million people owned cryptocurrencies. The number of holders thus increased by 33% in just one year (Triple-A, 2025).

Therefore, given that cryptocurrencies are private and decentralized, they represent a challenge, even a significant one. A threat to central banks and their monetary policy. This is because they encroach upon the monetary power of states, the regulation of payments and the money supply by central banks, and the prerogatives of banking and financial regulators. Thus, to maintain control, central banks have taken the lead in implementing digital currencies. In other words, central bank digital currencies (CBDCs) have become a major issue for states, which see this financial innovation as a way to protect and strengthen their monetary sovereignty.

The main similarity between central bank digital currencies and cryptocurrencies could be the technology used by central banks for the circulation of their currency : they must be recorded in a ledger, a part of the blockchain (distributed ledger technology). This technology secures transactions by making them immutable, traceable, and transparent. All transactions are recorded in a distributed digital ledger, encrypted and impossible to delete or modify.

Cryptocurrencies are not However, they are not considered true currencies. They are referred to as private or partial currencies, as opposed to public currencies. This is because they are not widely accepted as means of payment, their value is extremely volatile, and they are not guaranteed by a central bank or, most of the time, by any other entity (De Boissieu, 2023, p. 2).

Unlike cryptocurrencies, CBDCs will be full-fledged currencies in the sense defined by John Hicks, since they can fulfill all the traditional functions of money. Most preparatory studies for the launch of CBDCs emphasize their role as units of

account, which is certainly important but not exclusive of their ability to fulfill the other two functions. From this perspective, they will possess a competitive advantage over private cryptocurrencies, which will remain very partial currencies as long as they do not have legal tender status.

The desire to combat the instability of crypto-assets is therefore one of the main reasons for the emergence of CBDCs, but there are several other reasons, such as the desire to promote financial inclusion.

1.2.2. Expanding financial inclusion

Financial inclusion, broadly defined, can be understood as the ability for individuals and business to access and use financial services at low cost. Indeed, opening a bank account can be complicated, as private banks are selective in offering their services to clients. Consequently, a minority remains unbanked or underbanked, meaning they are unable to access and use all the necessary financial services effectively. More than a billion people worldwide do not have a bank account. Many of these unbanked individuals own a mobile phone. Mobile payments contribute to financial inclusion.

(Tan, 2023)Shows that CBDCs, particularly those from developing countries, have the capacity to bring large unbanked populations into the banking system and promote financial inclusion. Issuing CBDCs can therefore increase bank deposits among previously unbanked individuals by encouraging them to open bank accounts to access CBDC wallets.

1.2.3. Strengthening transparency, traceability, and payment security

CBDCs could improve the transparency and traceability of transactions. Through the integration of technologies such as blockchain, financial flows would be recorded in a decentralized and secure manner, facilitating fraud detection and the monitoring of systemic risks by regulatory authorities. This improved traceability could strengthen trust in the financial system. (Prat & Couppey-Soubeyran, 2025)

CBDCs could accelerate financial transactions by enabling instant, 24/7 payments, which is particularly important in a world where transactions are increasingly conducted online and in real time.

Furthermore, by offering a safe and reliable digital alternative, CBDCs could reduce reliance on private payment systems and cryptocurrencies, thereby helping to mitigate risks to financial stability. (Fund International Monetary, 2023, p. 19).

1.2.4. Combating tax evasion and money laundering

Cryptocurrencies and stablecoins are often used to circumvent financial regulations : 60% of Bitcoin transactions in 2023 were linked to illegal activities, according to Chainalysis. This could lead to capital flight to tax havens or opaque jurisdictions, weakening state tax revenues.

Central bank digital currencies (CBDCs) ensure full traceability of transactions, making it possible to combat fraud and tax evasion. The digital yuan allows China to monitor capital flows and block suspicious transactions in real time.

Ultimately, research conducted by the Alliance for Financial Inclusion highlights that developing and emerging economies have several reasons to pursue a CBDC. While there is some overlap between the motivations of developed and developing/emerging countries, for the latter, financial inclusion is the priority and primary motivation for CBDCs. Indeed, the very high penetration of communication technologies, such as mobile telephony and internet access, in these countries creates

an environment conducive to the interest of governments and populations in digital currencies (Alliance for Financial Inclusion, 2022).

Conversely, in developed markets, with higher rates of financial inclusion and large-scale, efficient payment systems, the implementation of central bank digital currencies (CBDCs) is more about promoting financial innovation by enabling end-to-end transactions using blockchain technologies (De Galhau, 2019). It can also be a way to maintain a connection with the public, particularly in countries where the use of banknotes is declining, such as Sweden.

1.3. Overview of CBDCs

Almost all countries, including emerging and developing nations struggling to emerge, are concerned with launching their own CBDCs. They are either adopting a comprehensive approach combining wholesale and retail CBDCs, or favoring a sequential approach, generally starting with wholesale CBDCs.

This gradual approach, beginning with wholesale CBDCs, is one of many similar examples, as exemplified by the Bank of Algeria.

Indeed, according to the Atlantic Council (a think tank based in Washington, D.C.), 137 countries worldwide were engaged in CBDCs at various stages (research, pilot, or launch) as of July 2025.

Seventy-two countries are currently in advanced stages of exploration : development, pilot projects, or launch. A record 49 CBDC pilot projects have been launched globally (Atlantic Council, 2025).

Three countries have fully launched a digital currency : The Bahamas, Jamaica, and Nigeria, but adoption remains slow and limited. Several other jurisdictions have launched large-scale CBDC pilot projects, including China and India.

The Central Bank of the Bahamas, whose work on a CBDC began as early as 2016, will go down in history as the first central bank to launch its digital currency, the sand dollar, in October 2020.

Its adoption remains limited. Several factors were identified by the Central Bank of the Bahamas as being responsible for the rather low adoption rate of the Sand Dollar. Among these are insufficient merchant participation in the Sand Dollar network and the lack of interconnection with the traditional banking system for merchant accounts. Customer education is deficient; users were not sufficiently informed about the benefits and operation of the Sand Dollar (Koonprasert, Kanada, Tsuda, & Reshid, 2024, p. 3).

The Bank of Jamaica officially launched Jam-Dex in July 2022. This launch was accompanied by an advertising slogan (“Jam-Dex – No cash, No problem”) and a bonus of 2,500 Jamaican dollars (15 euros), granted by the government to the first 100,000 consumers who opened a Jam-Dex wallet (De Sèze, 2023, p. 92)

In Jamaica, the low adoption rates of Jam-Dex have been attributed to a lack of public awareness and difficulties in integrating merchants. Merchants were initially required to upgrade their point-of-sale terminals to accept Jam-Dex. Furthermore, the lack of incentives or mandates for commercial banks to modify ATMs for Jam-Dex conversion also posed challenges to adoption efforts.

Nigeria, with the launch of the eNaira in October 2021, has positioned itself as a pioneer in the adoption of central bank digital currencies (CBDCs) in Africa. The deployment of the eNaira aims to improve financial inclusion, optimize payment services, and support economic growth. The slow adoption of the eNaira can be

partly attributed to the phased approach of the Central Bank of Nigeria, which initially granted access only to customers with bank accounts and restricted eNaira transactions to domestic use.

1.4. Risks associated with adopting a Central Bank Digital Currency (CBDC)

The list of advantages should not obscure certain costs and limitations of central bank digital currencies.

1.4.1. Risk of aversion to bank deposits

A major risk associated with the creation of a central bank digital currency is that it could lead to a significant conversion of bank deposits into assets held in digital currencies. A CBDC would then deprive commercial banks of a stable source of funding (Whited, Wu, & Xiao, 2023, p. 40)

This could happen in normal times, but it is most likely to occur during banking, financial, or economic crises. It's important to remember that a central bank digital currency (CBDC) would be directly guaranteed by the central bank, making it a risk-free asset, safer than traditional bank money. Furthermore, this CBDC could be remunerated and thus more attractive than bank deposits, which are generally interest-free. Such a situation would lead to a transfer of deposits to the CBDC, which would have significant consequences for the banking model :

- In normal times, it could affect their profitability : the decrease in bank deposits would lead to a drop in the credit multiplier and the banks' capacity to finance the economy.

For example, in the event of the introduction of a digital euro, the Bank of France report (2024) indicates that an extreme scenario of deposit substitution would reduce bank funding resources by 10 to 15% (Prat & Couppey-Soubeyran, 2025). To cope with the flight of deposits to digital currency and preserve the size of their balance sheets, banks could also try to remunerate their deposits at a rate equal to or higher than that of central bank money, with a direct effect on their profitability.

- In times of stress, in the event of a bank run, people might want to massively transfer their money from commercial banks to central bank digital currency, affecting the solvency of banks and exacerbating the instability of the financial system.

1.4.2. Reduction of the role of banking intermediaries

Commercial banks risk losing important customer information if customers use e-wallets for their transactions, reducing both the quantity and quality of data available to financial institutions. This reduced customer information could make banks less able to perform essential economic functions, such as monitoring borrowers or lending. It could therefore have potential impacts on the quality of bank assets and bank solvency, affecting credit risk management.

1.4.3. High energy consumption

The production of CBDCs, which generally relies on blockchain technology, requires high energy consumption and runs counter to widely shared environmental goals.

In summary, central banks worldwide are interested in CBDCs for various reasons, including better economic control, increased oversight of financial transactions, consumer preference for digital payments, increased access to financial products for the unbanked population, and improved payment efficiency. Algeria, like other emerging economies, is considering the introduction of a central bank

digital currency, called a digital dinar, to address several structural challenges.

2- Prospects for the introduction of the digital dinar in Algeria

Like many central banks worldwide, the Bank of Algeria has begun an investigation phase regarding the potential launch of a central bank digital currency (CBDC), in a context where it considers digital transformation a key driver for accelerating the diversification of the economy beyond hydrocarbon exports and the development of financial inclusion.

It is within this framework that Prime Minister Aimene Benabderhamane announced on December 26, 2022, that the Bank of Algeria intends to adopt a CBDC (called a digital dinar). This project to create a digital dinar is based on Article 3 of Monetary and Banking Law 23-09 of June 21, 2023. Algeria is currently in the research phase. This digital currency, which will be developed, issued, managed, and controlled by the Bank of Algeria, is called the Algerian Digital Dinar.

Its adoption will begin with an experimental phase initially focused on an interbank (wholesale) central bank money. Its integration will then incorporate the second type of digital currency (Kahlane, 2023).

Its creation presents an opportunity to modernize the Algerian financial system and the functioning of banks, where the customer is truly at the center. It is the best alternative to fiat currency and the logical next step after electronic money (Aya, 2024). Indeed, digital currency is a virtual monetary value that is exchanged only digitally ; it cannot be seized or withdrawn.

This new form of the dinar offers a significant advantage in supporting the financial inclusion of the segment of the population currently outside the formal financial system. In fact, it will help small businesses and project promoters in rural and isolated areas to unlock their immense economic potential and facilitate their access to banking and financial services.

2.1. The adoption of the Digital Dinar : an opportunity to promote financial inclusion and reduce the informal economy

Promoting financial inclusion and developing payment methods are priority areas for the Algerian authorities. We will focus more specifically on the opportunities offered by the digital dinar in these two areas.

2.1.1. Algeria’s strengths for adopting a Central Bank Digital Currency

Algeria possesses significant advantages for the implementation of a central bank digital currency (CBDC). The rise of mobile technologies and the importance of cash in daily transactions in Algeria offer fertile ground for the adoption of a central bank digital currency.

Indeed, internet usage rates have increased significantly in recent years, reaching an estimated 76.9% in 2025, compared to a global average of 65.4% and an average of 35% for the African continent. Mobile phone penetration (112%) and mobile internet penetration (104%) are well above the global average (CNUCED, 2025, p.25). This percentage demonstrates the omnipresence of mobile devices in the daily lives of Algerians. Algeria boasts the second-best performance in Africa in terms of mobile internet accessibility.

The digital dinar could thus be stored on a mobile phone to create a completely secure electronic wallet, accessible via a mobile application. Consequently, two-thirds of unbanked individuals who own a mobile phone are potential users of digital currency. They could access various financial services

through a connected device.

Furthermore, the government's commitment to modernizing the financial system represents a significant advantage. Initiatives implemented regarding the digitization of transactions, financial inclusion, and the digitalization of public administration are leading to a progressive commitment to financial innovation.

2.1.2. The adoption of the Digital Dinar as a Lever for promoting financial inclusion

Financial inclusion remains a challenge for developing and emerging countries, particularly Algeria. Indeed, only 44% of Algerian adults have access to banking services.

The lack of access to formal financial accounts demonstrates that financial exclusion remains a major problem in Algeria, highlighting the need for innovative solutions.

Digital payments and the modernization of payment methods are among the solutions for improving financial inclusion. These have seen significant growth.

In this respect, access to financial and payment services has improved in recent years with the growth in bank and postal account ownership. The number of deposit accounts with commercial banks increased from 15.1 million in 2018 to 17.5 million in 2023, representing 551.5 accounts per 1,000 adults (CNUCED, 2025, p. 37). Algeria Post, through its extensive network of post offices and 29.7 million postal current accounts, makes a significant contribution to financial inclusion.

Similarly, the penetration rate of interbank cards in Algeria has improved, with 19.8 million interbank cards in circulation at the end of 2024, of which 78.6% were EDAHABIA cards issued by Algeria Post and 21.4% were CIB cards issued by banks. Up 20.2% compared to 2023. The total value of card transactions has quadrupled over the past five years, reaching DZD 4,335.4 billion (US$32 billion) at the end of 2024 (CNUCED, 2025, p. 38)

The use of mobile payments, facilitated by QR codes, has seen significant growth since its introduction in 2022. The launch of Mobile Switch in June 2024, which ensures the interoperability of mobile payment applications, will further boost the electronic payments market and diversify payment solutions within e-commerce.

However, despite remarkable progress in this area, several shortcomings remain. Indeed, although the number of bank cards has increased, their use remains largely limited to cash withdrawals (85% by the end of 2024) rather than electronic payments.

In rural areas, the adoption of bank cards is even lower due to limited access to banking services. Many people do not even have a bank account, preventing them from accessing digital financial services. This situation significantly reduces the impact of bank cards on financial inclusion.

Furthermore, while the installation of ATMs improves access to cash, it should not encourage citizens to withdraw all their earnings in favor of cash. This would hinder financial inclusion through electronic payment methods.

In addition, many users express concerns regarding transaction security, the protection of personal data, and the increasing costs of accepting digital payments (credit card processing fees, payment platform subscription fees, etc.). In other words, some consumers and merchants do not yet trust electronic payments. Ultimately, digital payments offer considerable advantages in terms of financial inclusion, but these barriers limit their adoption. The introduction of a digital dinar could be a solution to mitigate them.

Indeed, the ability to leverage mobile wallets offers an opportunity to expand access to financial services for those without bank accounts. Furthermore, the centralization of the settlement process and the reduction in the number of intermediaries contribute to lower transaction fees, making the system more attractive to merchants. In conclusion, the security of transactions guaranteed by the central bank and the irrevocability of payments enhance user confidence, a fundamental aspect for adopting a new payment method such as the Algerian digital dinar.

The following table summarizes the obstacles to financial inclusion and the remedies proposed by the CBDC.

Table 1. Obstacles to financial inclusion and the remedies proposed by the CBDC

Obstacles to financial inclusion	CDBD's characteristics help overcome them
High access fees for traders	-Cost reduction through centralization of the settlement process within a CBDC; -Elimination of intermediaries allows for a reduction in payment-related costs.
Lack of trust	Instant transactions guaranteed by the central bank.
Insufficient access to financial services	Mobile wallet for transactions
Inadequate banking infrastructure	Use of mobile as a payment device

Source : Author's construction.

2.1.3. The implementation of the Digital Dinar : an instrument for reducing the weight of the informal economy

In Algeria, the informal economy represents a significant economic challenge. According to a report by the Bank of Algeria published in November 2024, this parallel economy is valued at 8,273 billion dinars, representing 34% of the money supply in circulation that escapes the formal banking and tax systems (Gaidi, 2024).

This phenomenon has a devastating impact on public finances, depriving the state of substantial tax revenue, including one-third of VAT and a significant portion of income tax. Central bank digital currency (CBDC) could play a significant role in reducing the informal economy by offering a digital alternative to cash, thereby promoting transaction traceability and combating tax evasion. By making payments more transparent and traceable, CBDCs could make it more difficult for the informal economy to operate and encourage the formalization of economic activities. According to financial expert (Aya, 2024), the difference between the traditional dinar and the digital dinar is that physical currency in the form of coins and banknotes can potentially leak into the parallel market, unlike digital currency, which has no means of leaving the banking sector. This helps minimize the amount of money circulating in the parallel market.

However, the potential of the digital dinar to improve financial inclusion and reduce the informal economy can only be realized if certain obstacles are overcome.

2.2. Obstacles to the adoption of the Digital Dinar

The adoption of the digital dinar faces several constraints that are technological, institutional, economic and socio-cultural.

2.2.1. Technological constraints

The Algerian digital economy is well on its way to growth, but it remains too fragmented and insufficiently interconnected.

While major cities benefit from increasing connectivity, rural areas lag behind. Access to broadband and digital tools remains limited, exacerbating regional inequalities. These unequal access to technology could hinder the adoption of the digital dinar.

Furthermore, cybersecurity is a major concern. The project requires a secure and resilient digital infrastructure capable of ensuring robust cryptography.

Without a mature and secure ecosystem, the risk of cyberattacks could be high, causing significant financial losses for e-dinar users. Indeed, the country lacks qualified professionals in fields such as artificial intelligence. In this context, a national graduate school of cybersecurity was established by Presidential Decree No. 24-181 of June 5, 2024, and became operational during the 2024-2025 academic year to address the growing cybersecurity threats and the need to strengthen the defense of the national information system.

This school complements the National Graduate School of Artificial Intelligence (ENSIA), created in September 2021 by presidential decree, which aims to provide elite training in artificial intelligence according to international standards.

2.2.2. Institutional constraints

The legal framework surrounding the digital dinar in Algeria remains embryonic despite an ambitious reform. While the 2023 monetary law marks a turning point, the lack of implementing regulations and clear rules on legal responsibilities risks compromising the effectiveness and trust necessary for the use of this new financial technology. Laws on cybersecurity, data protection, and e-payments are evolving, but at a pace that lags behind market needs.

2.2.3. Sociocultural constraints

One of the obstacles hindering the implementation of the digital dinar is the public's reluctance to trust the financial system. When trust is low or virtually nonexistent between citizens, the central bank, and public institutions, users may perceive digital currency as a tool for surveillance or control rather than a technological advancement serving the public.

The challenge is to gradually and fully build this trust in order to make the reforms undertaken by the government to modernize the Algerian banking and financial system profitable.

Furthermore, promoting financial and digital literacy is essential to stimulating the use of Algerian digital currency, based on informed decisions regarding the use of digital and financial services. Developing a national financial education strategy will play a key role in improving citizens' financial literacy and raising their awareness of preventing financial fraud in general, and fraud associated with online payments in e-commerce transactions in particular. Awareness campaigns aimed at generalizing digital culture among all segments of the population are needed to encourage wider adoption of the digital dinar and promote the use of electronic transactions.

2.2.4. Economic constraints

Digitization requires significant financial and technical resources (secure digital platforms, terminals, applications, etc.) which can have a substantial impact

on the state budget.

Moreover, as we have already emphasized, the size of the informal economy remains a problem for the Algerian authorities. This sector relies primarily on cash transactions that escape any form of traceability or taxation.

The adoption of the digital dinar could be hampered by the reluctance of informal market participants to abandon their usual practices, fearing its use for tax control purposes. This caution is exacerbated by the lack of financial and digital literacy.

This situation, therefore, presents a dual challenge : on the one hand, the digital dinar can contribute to reducing the informal economy. On the other hand, if it is poorly implemented, it risks increasing mistrust among participants and further excluding those operating outside the traditional financial system. Thus, several experts advocate a gradual and inclusive approach, combining technological support, financial literacy, and tax incentives (tax reductions, subsidies, and financing facilities) to encourage the integration of these actors into the digital ecosystem (Lezzar, 2024).

Furthermore, the digital dinar must be remunerated to attract savings, but not excessively so as to lead to financial disintermediation. Indeed, if citizens prefer to store their money in the form of digital dinars with the Bank of Algeria, this will lead to a decrease in deposits, which will limit banks' capacity to distribute credit.

Conclusion :

In conclusion, the creation of a digital currency by central banks represents a major shift in the global financial landscape. However, it is essential to address the legitimate concerns surrounding this initiative. The questioning of the role of deposit banks, the potential loss of data privacy, and the inability to physically hold one's own money are all issues that warrant careful consideration. It is crucial to adopt a balanced approach and ensure that citizens' rights and interests are fully taken into account in this process of monetary digitalization.

As for the Bank of Algeria’s project to create a digital currency, it represents a major change in the Algerian financial landscape. It constitutes an opportunity to modernize the financial system, improve financial inclusion (a key element of socio-economic progress), and put an end to the informal economy and other illegal activities.

Despite the opportunities it presents, the adoption of the digital dinar poses significant challenges : the informal sector, surveillance, unequal access to the internet, and a developing legal framework. These obstacles must be overcome for the Bank of Algeria to realize its ambition of implementing a digital dinar. A strict regulatory framework, including data protection and cybersecurity standards, is essential to maintaining user trust and ensuring the successful adoption of this digital currency.

Public authorities must also improve access to digital infrastructure such as mobile and internet connectivity. While Algeria has made significant progress, it needs more investment, particularly in rural areas.

Furthermore, the development of a national financial education strategy will play a key role. The successful adoption of CBDCs depends not only on technical readiness and operational robustness, but also on strategic policy and design choices that target the involvement of end users and intermediaries from the outset.

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