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The Digital Dinar and the Transformation of Monetary Policy in Algeria: Analytical Insights and Forward-Looking Perspectives

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Abstract :

Global monetary policy is undergoing significant change with the emergence of Central Bank Digital Currencies CBDCs. Algeria's introduction of the Digital Dinar under Monetary and Banking Law No. 23-09 marks a turning point in its monetary modernization. This study analyzes the future of Algeria's monetary policy using descriptive, comparative, and foresight methods. Quantitative data show that liquidity outside the formal banking sector reached 35.3% of total money supply in 2022. Scenario projections suggest that broad adoption of the Digital Dinar 70–80% could reduce inflation to about 5–6%. The findings highlight the importance of strengthening digital infrastructure, legal frameworks, and institutional cooperation. The Digital Dinar is thus viewed not only as a technological innovation but as a strategic policy tool for enhancing monetary control, financial inclusion, and macroeconomic stability in Algeria's digital era.

Keywords : Monetary policy; Digital Dinar; Central Bank Digital Currencies; financial inclusion; informal economy.

JEL Classification Codes : E42, E52, E58, G28, O55

Introduction:

Global monetary systems are undergoing a pivotal transformation driven by the rapid expansion of Central Bank Digital Currency (CBDC) initiatives. By 2024, more than 100 CBDC projects had advanced through various stages of research, experimentation, and implementation (IMF, 2023). These developments are not limited to advanced economies but have increasingly extended to emerging and developing countries. In Algeria, the adoption of the Digital Dinar under the Monetary and Banking Law No. 23-09 of 2023 reflects the authorities' determination to modernize the financial system in accordance with the

requirements of the digital economy and to address structural issues such as the persistence of the informal sector.

The relevance of this issue lies in its direct implications for monetary stability and the capacity of the Bank of Algeria to effectively manage the money supply, particularly in the context of enduring challenges such as high levels of liquidity held outside the banking sector and limited financial inclusion.

Research Problem:

The central research question addressed in this study is:

What is the future of monetary policy in Algeria in the context of adopting the Digital Dinar as a central bank currency?

This primary inquiry is further specified through the following sub-questions:

- What are the economic and financial drivers behind the introduction of the Digital Dinar in Algeria?
- How might the Digital Dinar influence traditional monetary policy instruments, including interest rates, money supply, and inflation?
- What are the potential future scenarios for its adoption, ranging from comprehensive implementation to partial adoption or project failure?

Study Hypotheses:

- The Digital Dinar serves as an effective instrument for enhancing control over the money supply and reducing the scale of the informal economy.
- The effectiveness of digital monetary policy is amplified when supported by comprehensive institutional and legislative reforms.
- The success of this transformation may be limited by challenges associated with digital sovereignty and cybersecurity risks.

Research Objectives:

The study pursues the following objectives:

- To analyze the underlying motivations for introducing the Digital Dinar into Algeria's monetary system.
- To examine the potential effects of this currency on monetary policy and its instruments.
- To explore possible future scenarios for the adoption of the Digital Dinar (optimistic, moderate, and pessimistic outcomes).

- To provide practical policy recommendations aimed at strengthening the effectiveness of monetary policy within a digital environment.

Significance of the Study:

The importance of this research can be highlighted at three levels:

- **Academic significance:** The study contributes to the Algerian and regional literature by addressing a novel and highly relevant topic situated at the intersection of digital financial innovation and monetary policy.
- **Practical significance:** It offers policymakers at the Bank of Algeria and regulatory authorities evidence-based insights on leveraging the Digital Dinar as a tool for promoting financial inclusion and reducing the size of the informal economy.
- **Future-oriented significance:** The study provides a forward-looking framework for designing proactive strategies to safeguard financial system stability and reinforce public confidence in the national currency amid the global shift toward financial digitization.

Methodology:

This research employs a multi-method approach, combining descriptive, comparative, and foresight methodologies:

- **Descriptive-analytical method:** used to clarify the concept of CBDCs and examine the positioning of the Digital Dinar within Algeria's monetary framework.
- **Comparative method:** applied to benchmark Algeria's approach against the experiences of China and Nigeria, two emerging economies that have advanced CBDC experimentation. China launched pilot programs for the Digital Yuan (e-CNY) in 2014, expanded nationwide testing in 2020, and by 2023 had over 260 million registered users, illustrating the benefits of phased implementation and strong state–private cooperation. Nigeria introduced the eNaira in 2021, but adoption remained below 1.5% of the population by 2023, primarily due to low digital literacy, technical glitches, and limited incentives for users. These experiences demonstrate that successful CBDC deployment requires not only technological readiness but also public trust, financial education, and effective communication strategies.

- **Foresight method:** employed to construct potential scenarios for the Digital Dinar's adoption in Algeria, taking into account the country's institutional readiness, infrastructure development, and socio-economic characteristics.

I. Conceptual and Analytical Framework:

1. Definition of Central Bank Digital Currencies (CBDCs) :

A Central Bank Digital Currency (CBDC) is most commonly defined as a digital form of central bank money that is, a sovereign monetary liability recorded on the balance sheet of the central bank and issued either on a wholesale basis for financial institutions or on a retail basis for the general public, depending on the design adopted (BIS, 2020, pp. 3-4). Unlike commercial electronic money, CBDCs are of sovereign nature and hold a foundational position within the monetary system, despite sharing certain digital infrastructures and verification technologies with private-sector systems (BIS, 2020, pp. 1-2).

The Congressional Research Service (CRS) conceptualizes CBDCs as a functional extension of cash and reserves, with potential implications for financial inclusion, financial stability, and the effectiveness of monetary policy, depending on their structural design (Labonte & Nelson, 2022, p. 4).

From a typological perspective, two categories of CBDCs can be distinguished:

Wholesale CBDCs: intended primarily for interbank settlements and capital market transactions.

Retail CBDCs: designed for widespread use by the general public.

These two models differ significantly in terms of their implications for banking intermediation and the risk of credit disintermediation. (Labonte & Nelson, 2022, pp. 6-7)

The Bank for International Settlements (BIS) outlines three key principles that should guide the design of CBDCs: (BIS, 2020, pp. 7-8)

A. ensure that they "do no harm" to the existing monetary and financial system,
B. promote innovation and efficiency,
C. Support international cooperation.

2. Global Drivers of CBDC Proliferation:

The growing interest in CBDCs globally can be attributed to two main drivers:

Modernization of payment systems: CBDCs promise to enhance efficiency and reduce settlement times, particularly in cross-border transactions that are currently characterized by high costs and delays.

Adaptation to digital transformation: responding to the declining use of cash in certain economies, the digitization of commerce, and the rapid adoption of digital financial services (BIS, 2020, p. 3).

From a political–economic perspective, CBDCs are also viewed as instruments to strengthen competition and resilience against the dominance of private payment platforms and the expansion of stable coins. Their potential benefits further extend to financial inclusion and more efficient distribution of government transfers (Labonte & Nelson, 2022, p. 15).

According to the BIS Annual Economic Report, the anticipated benefits of CBDCs include: (BIS, 2020, p. 10)

- lowering payment acceptance costs,
- mitigating monopolistic structures in payment markets,
- improving interoperability across payment systems, and
- Promoting transparency through the use of common technical standards.

Nevertheless, the literature also warns of potential risks such as excessive state control over transactions, vulnerabilities related to cybersecurity, and possible deposit migration from commercial banks in the event that CBDCs substitute for large-scale retail deposits (Labonte & Nelson, 2022, p. 22).

3. The Digital Dinar in the Algerian Monetary System:

As part of its 2023 monetary and banking reforms, Algeria established the legal foundation for issuing a sovereign digital version of the dinar. Under Law No. 23-09, Article 2 specifies that the national currency may take a digital form under the name "Algerian Digital Dinar," to be issued and managed by the Bank of Algeria (APS Law No. 23-09 Article 2, 2023). This places the Digital Dinar within the sovereign monetary base (MB/reserves). However, effective implementation requires supplementary detailed regulation governing the technical architecture, access protocols, and compliance mechanisms.

Official statements indicate that the regulatory and technical frameworks are under preparation, with a phased rollout envisioned. The initiative is closely aligned with national objectives, including improved liquidity management, reducing the size of the informal economy, and expanding financial inclusion (APS Law No. 23-09 Article 2, 2023).

Recent contributions in Algerian academic literature highlight that the inclusion of the Digital Dinar in Law No. 23-09 represents not only a legal measure but also a conceptual reorientation of the national monetary system (Sharara & Baqbaq, 2023, p. 5).

However, for the reform to translate into tangible effects, several prerequisites must be satisfied: (Qassouri & Abba, 2024, p. 157)

- development of real-time payment platforms and robust electronic Know Your Customer (e-KYC) systems,
- deployment of advanced financial crime detection and monitoring technologies, and
- Establishment of operational frameworks that ensure commercial banks are not excessively displaced from the intermediation process.

Comparative research further suggests that Algeria's motivations are broadly consistent with regional experiences across Africa and the Middle East, particularly in the pursuit of greater financial inclusion and reduction of excess liquidity circulating outside formal banking channels (Amalou & Douidene , 2024, p. 98)

II. Economic and Political Analysis of the Adoption of the Digital Dinar:

1. Economic and Political Drivers:

A. Combating the Informal Economy:

Algeria's informal economy remains substantial, representing an estimated 30% of gross domestic product (GDP). This reflects the high circulation of cash outside the formal financial system (Benyahia, 2023) The adoption of the digital dinar is therefore viewed as a strategic policy instrument for enhancing the transparency of financial transactions and constraining the shadow economy. Experts note that the introduction of a central bank digital currency (CBDC) could "absorb funds circulating in the black market into the national banking system," thereby improving traceability and reducing reliance on physical cash (Algeria Invest, 2024).

B. Cybersecurity Risks:

The increasing reliance on digital infrastructures significantly heightens exposure to cyberattacks, emphasizing the need for robust cybersecurity frameworks to safeguard financial networks from intrusion, data breaches, and fraud. Effective risk mitigation requires the implementation of advanced encryption technologies, continuous system monitoring, and clear regulatory standards to ensure digital resilience and institutional accountability. (International Monetary Fund, 2024)

C. Digital Implementation Challenges:

Despite the presence of a large pool of young professionals with technological expertise, Algeria's government-led digital initiatives often face implementation delays and performance limitations. As expressed in public discussions, "The country has talented youth with programming expertise, but government applications are often below expectations, and digitalization takes too long. These shortcomings reflect institutional weaknesses in adopting effective technological solutions, compounded by insufficient private-sector innovation due to regulatory constraints. (Arribi & Boutarfa, 2024, p. 42)

The economic and political analysis of Algeria's Digital Dinar reveals three interrelated dimensions:

- **Drivers:** The Digital Dinar functions as a strategic policy instrument aimed at curbing the informal economy, promoting financial inclusion, and strengthening monetary liquidity management. By fostering transparency and traceability of financial transactions, it facilitates the gradual integration of informal cash holdings into the formal banking system.
- **Legal and Institutional Framework:** Monetary and Banking Law No. 23-09 reinforces the supervisory mandate of the Bank of Algeria, enhances governance mechanisms, and establishes the regulatory foundation for digital currency issuance. It further incorporates robust Payment Service Providers (PSPs) oversight, referring to the supervision of licensed entities responsible for electronic payment operations, as part of a broader agenda for modernizing the national payment infrastructure.
- **Challenges:** Persistent deficiencies in digital infrastructure, increasing cybersecurity vulnerabilities, and limited levels of digital literacy and innovation capacity continue to pose significant obstacles to the establishment of a secure and efficient digital monetary ecosystem.

III. The Impact of the Digital Dinar on Monetary Policy:

1. Implications for Monetary Policy Instruments:

The introduction of a central bank–issued digital currency (CBDC) in Algeria-the Digital Dinar-would induce structural shifts in the transmission and operational mechanisms of monetary policy.

- **Money Supply and Banking Liquidity:**

The substitution of commercial bank deposits with Digital Dinar balances alters sectoral balance sheets: commercial bank deposits decline, while the central bank's liabilities to the non-banking sector increase. Without compensatory measures, this reduces banks' reserve holdings at the central bank. Analyses by the European Central Bank suggest that such dynamics may force monetary authorities to expand reserve supply or modify the frequency and structure of intervention operations in order to preserve short-term interest rate anchoring. The impact varies depending on whether monetary operations follow a "floor" or "corridor" system. If the substitution into CBDC is sizable, banks may demand higher precautionary reserves to cover conversion risks, thereby raising the minimum buffer required for smooth policy implementation. (Caccia, Tapking, & Vlassopoulos, 2024, p. 29)

- **Interest Rate Channel:**

Research by the Bank for International Settlements underscores the central role of CBDC design. If the Digital Dinar carries a positive interest rate and becomes an attractive savings vehicle, it could heighten competitive pressure on deposit rates, strengthening monetary policy pass-through to households and firms. However, in low-interest-rate environments, such a design could set a de facto market floor that weakens pass-through from reserve remuneration to deposit rates. Conversely, if policymakers rely primarily on enhancing the convenience value of the Digital Dinar through widespread accessibility and efficient user interfaces the pass-through to deposit rates could improve, even in the absence of explicit remuneration. (Garratt, Yu, & Zhu, 2022, pp. 23-24)

- **Bank Lending Channel:**

IMF studies indicate that if substitution into CBDC becomes significant, stronger competition for deposits may push banks toward greater reliance on wholesale funding, lowering margins and tightening financial conditions in the short term. Over the medium term, however, these pressures could strengthen credit intermediation, particularly if paired with central bank liquidity-providing operations. While aggregate effects under normal conditions are expected to remain limited, risks could intensify in low-rate environments or during episodes of financial stress, when flight to CBDC as a safe haven may accelerate. (Das, Mancini-Griffoli, & Nakamura, 2023, pp. 16-17)

- **Exchange Rate Channel:**

Although the exchange rate transmission mechanism is unlikely to change fundamentally, CBDC adoption could reduce incentives for dollarization or reliance on private digital assets. If the Digital Dinar is sufficiently attractive, it may reinforce domestic monetary anchors, thereby strengthening both the interest rate and credit channels. (Das, Mancini-Griffoli, & Nakamura, 2023, p. 22)

- **Inflation Dynamics:**

The effect of the Digital Dinar on inflation is indirect, operating through monetary transmission. If CBDC design enhances the responsiveness of deposit and lending rates to policy adjustments, the central bank would gain stronger control over aggregate demand and, consequently, price stability. However, poorly calibrated choices such as setting a positive CBDC rate during low-interest-rate regimes could create rigidities resembling a zero lower bound, requiring complementary operational tools to sustain effective transmission. (Garratt, Yu, & Zhu, 2022, p. 5)

2. **Real-Time Monitoring and the Informal Economy:**

As a programmable and traceable instrument, the Digital Dinar could considerably enhance the timeliness and quality of monetary data including transaction flows, currency velocity, and usage patterns. These improvements would strengthen the Bank of Algeria's nowcasting capacity and reduce information asymmetries that currently hinder precise policy calibration.

Policy research indicates that design features such as balance limits, tiered Know-Your-Customer (KYC) requirements, and offline functionality can mitigate excessive deposit substitution while maintaining the central bank's capacity to manage reserves and stabilize short-term rates (Caccia, Tapking, & Vlassopoulos, 2024, p. 27).

In the Algerian context, where large volumes of cash continue to circulate outside the formal banking system, CBDC traceability combined with appropriate privacy safeguards could progressively redirect liquidity into regulated channels. This would not only improve the management of monetary aggregates but also reduce seasonal volatility in market liquidity conditions associated with informal cash cycles.

3. Implications for Financial Stability and the Banking Sector:

The financial stability implications of the Digital Dinar center on two areas: the risk of accelerated deposit substitution or digital bank runs, and the central bank's ability to counterbalance such dynamics.

ECB analyses recommend design safeguards such as holding limits and tiered remuneration structures to discourage excessive accumulation of digital balances during crises and to reduce the risk of destabilizing shifts from deposits into CBDC. They stress that central banks retain sufficient operational flexibility to expand liquidity operations and resize their balance sheets to prevent disruptive interference between CBDC adoption and monetary stance (ECB, 2024, p. 14).

More broadly, BIS, IMF, and ECB assessments converge on the view that the associated risks are manageable if three conditions are met:

- conservative operational design, including non-remunerated CBDC under normal conditions and strict holding limits;
- flexible liquidity management tools enabling the timely provision of reserves; and
- Robust cyber-risk frameworks, since any breach or interruption could undermine public confidence and trigger systemic instability.

IV. Foresight Scenarios for the Future of the Digital Dinar:

1. Optimistic Scenario: Widespread Adoption and Informal Economy Integration:

In the optimistic scenario, the Digital Dinar is successfully introduced as a widely accepted official means of payment, with penetration extending into the informal economy. This integration enables the absorption of substantial liquidity that previously circulated outside the formal banking system. Such an outcome aligns with research findings that suggest the Digital Dinar can strengthen monetary policy instruments, enhance central bank control over money supply and inflation, and ultimately support Algeria's broader macroeconomic objectives. Furthermore, comprehensive adoption fosters greater financial transparency and stability by reducing the dependence on physical cash and limiting the scale of the shadow economy. (Mecheri & Tabet, 2025, p. 346)

2. Moderate Scenario: Partial Adoption with Limited Macroeconomic Impact:

The moderate scenario envisions a launch of the Digital Dinar with partial technical and legal success, but hampered by social, cultural, or behavioral reluctance. Evidence from comparative studies highlights that while developing economies including Algeria seek to

leverage CBDCs to advance financial inclusion and monetary policy effectiveness, most projects remain experimental and geographically limited. In this scenario, adoption may be constrained to major urban centers, large firms, or selective public services. As a result, the Digital Dinar would deliver incremental improvements in payment efficiency but exert only modest influence on the dynamics of the formal and informal economies. (KHATOUI, 2024, p. 180).

3. Pessimistic Scenario: Project Stagnation and Institutional Resistance:

In the pessimistic scenario, the Digital Dinar encounters persistent technical, cybersecurity, and institutional obstacles, ultimately impeding its effective deployment. Research on central bank digital currencies highlights that implementation often generates risks such as large-scale deposit withdrawals from commercial banks, heightened concerns over financial stability, and uncertainty in intermediation. Without a coherent strategic framework, such risks may place banks in a defensive position and exacerbate resistance within institutional and political structures. In such circumstances, the initiative risks stagnation and potential erosion of public confidence in monetary innovation. (Auer, Haene, & Holden, 2023, p. 30)

The success of the Digital Dinar project whether partial or complete depends on several interrelated determinants:

Legal foundation: Establishment of a comprehensive legal framework, notably Law No. 23-09, to provide regulatory certainty and facilitate issuance.

Technological infrastructure: Development of robust digital systems, including reliable payment infrastructure, advanced cybersecurity measures, and digital identity mechanisms.

Financial literacy: Promotion of digital financial awareness and education for both citizens and institutions, ensuring user adoption and trust in the system.

Operational design: Implementation of flexible design tools (e.g., tiered remuneration and balance limits) to guarantee smooth integration within the banking sector and prevent destabilizing effects.

Failure to meet these conditions could transform the Digital Dinar from a strategic opportunity into a source of operational inefficiencies and financial vulnerabilities. Conversely, their successful implementation would enhance the likelihood of achieving long-term monetary and financial benefits.

V. Analytical Foresight Study:

1. Current Analysis of the Algerian Economic and Monetary Context:

Algeria's monetary policy continues to face significant structural challenges, most notably the persistence of a large informal economy. Official estimates suggest that the informal sector represents more than 30% of gross domestic product (GDP). This substantial liquidity circulating outside the formal financial system weakens the effectiveness of conventional monetary policy instruments and limits the Bank of Algeria's capacity to regulate inflation and manage liquidity efficiently. (MEZIANE , 2024, p. 83)

In parallel, the enactment of Law No. 23-09 has introduced a regulatory framework enabling the issuance of the Digital Dinar. This legislative development represents an institutional milestone, positioning Algeria to align its monetary system with global transformations in central bank digital currencies. (APS Law No. 23-09 Article 2, 2023).

2. Economic Foresight – Future Scenarios:

Applying foresight methodology, three prospective scenarios can be envisioned for the future of the Digital Dinar:

A. Optimistic Scenario:(2030–2025) :

- Comprehensive adoption of the Digital Dinar across both formal and informal sectors.
- Gradual integration of the informal economy into formal financial channels through improved traceability of monetary flows.
- Enhanced financial inclusion, supported by the expansion of digital services into less developed regions.
- Relative inflation stability as the central bank strengthens control over monetary aggregates.

These expectations are consistent with IMF reports underscoring the potential of CBDCs to improve financial inclusion in emerging economies.

B. Moderate Scenario:

- Partial adoption of the Digital Dinar would likely coexist with a continued reliance on cash, limiting its macroeconomic impact. This outcome could stem from low digital literacy, sociocultural resistance, and weak public confidence in digital financial platforms. Consequently, progress toward financial inclusion would remain slow, while inflationary pressures could persist due to ineffective liquidity management.

- This trajectory closely mirrors Nigeria's experience with the eNaira, launched by the Central Bank of Nigeria in October 2021 as Africa's first Central Bank Digital Currency. Despite initial optimism, official reports indicate that by 2023, only 1.5 percent of the population actively used the eNaira, out of approximately 13 million registered wallets. The limited adoption was primarily attributed to insufficient user education, inadequate incentives for merchants, and technical issues related to transaction speed and interoperability.

Lessons applicable to Algeria include the need for:

- Comprehensive public awareness campaigns to build trust in the Digital Dinar;
- Merchant and consumer incentives to stimulate early adoption;
- A phased and adaptive implementation strategy ensuring technical reliability and user inclusivity.

C. Pessimistic Scenario:

- Project stagnation or failure due to technical vulnerabilities (e.g., cyberattacks) or institutional and societal resistance.
- Declining public trust in the digital monetary system.
- Financial instability resulting from the parallel circulation of paper currency and digital currency.

Algerian research has emphasized that weak financial cybersecurity could undermine confidence in the country's digital financial transition. (Chaib & Hamadi , 2023, p. 66)

3. Foresight Insights:

The Digital Dinar represents a strategic instrument with the potential to restructure Algeria's monetary policy framework. Nonetheless, its success is not automatic and depends on several critical prerequisites:

- Establishment of robust digital and technological infrastructure capable of supporting secure and efficient monetary operations.
- Promotion of widespread digital financial literacy to ensure user trust and broad adoption.
- Consolidation of comprehensive legislative and regulatory mechanisms to safeguard financial stability.

- Development of international partnerships to enhance digital sovereignty and cybersecurity resilience.
- Accordingly, the foresight approach is indispensable for Algerian policymakers. It not only provides the analytical tools to anticipate possible trajectories but also serves as a strategic compass for guiding policy choices toward outcomes that are financially sustainable and socially inclusive within Algeria's unique economic context.

VI. Data-Driven Analytical and Foresight Study:

1. Current Monetary and Economic Situation in Algeria:

The Scale of the Informal Economy and Liquidity Outside the Banking Sector, According to the Bank of Algeria (2022), liquidity circulating outside formal banking channels amounted to approximately DZD 6,100 billion, representing more than 35% of total money supply. Academic studies further estimate that the informal economy constitutes between 30% and 40% of Algeria's GDP

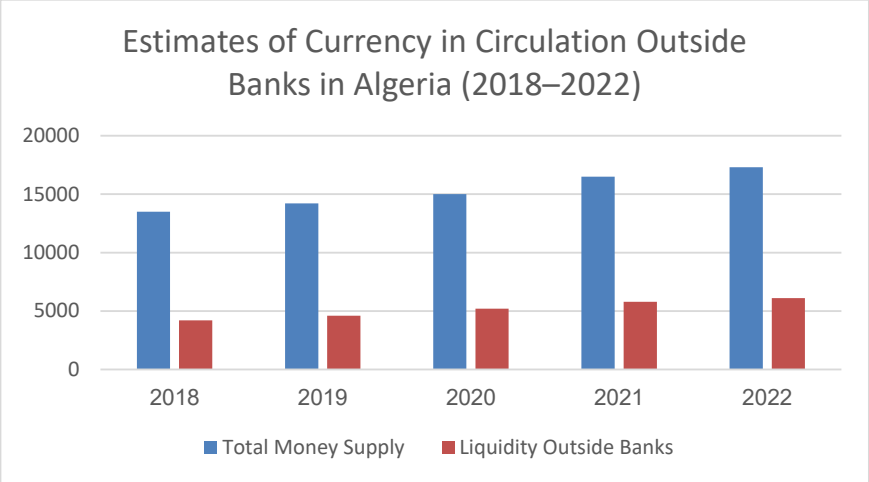
Table 01: Estimates of Currency in Circulation Outside Banks in Algeria (2018–2022)

Year	Total Money Supply (Billion DZD)	Liquidity Outside Banks (Billion DZD)	Share (%)
2018	13,500	4,200	31.1%
2019	14,200	4,600	32.4%
2020	15,000	5,200	34.7%
2021	16,500	5,800	35.2%
2022	17,300	6,100	35.3%

Source: Bank of Algeria (2022)

These figures show that more than one-third of Algeria's money supply remains outside the formal financial system, highlighting the urgency of integrating these funds into regulated channels. The introduction of a Digital Dinar offers a potential mechanism to reabsorb this liquidity into the official banking sector.

Figure1: Estimates of Currency in Circulation outside Banks in Algeria (2018–2022)



Source: Prepared by the researchers

2. The Impact of a Digital Currency on Monetary Policy:

A. Effects on Money Supply and Liquidity:

The deployment of the Digital Dinar would enable the Bank of Algeria to:

Monitor financial flows in real time.

Reduce substantially the liquidity circulating outside the formal financial sector.

B. Effects on Inflation and Exchange Rates:

- If broadly adopted, the Digital Dinar could enhance the central bank's capacity to regulate inflation, particularly when complemented by foreign exchange market reforms.
- Conversely, limited adoption would constrain its impact, yielding only marginal improvements in price stability.

3. Foresight Scenarios (2025–2030) :

Table 02: Comparative Scenarios for Digital Dinar Adoption in Algeria (2025–2030)

Indicator	Optimistic Scenario	Moderate Scenario	Pessimistic Scenario
Adoption Level (%)	70–80%	40–50%	<20%
Integration of Informal Economy	High (≈40%)	Medium (≈20%)	Weak (<10%)
Inflation Impact	Stable (5–6%)	Persistent (≈8%)	Volatile (>10%)
Financial Stability	Positive	Limited	Negative
Public Trust	High	Moderate	Low

Source: IMF (2024)

4. Foresight Interpretation:

The comparative outlook indicates three distinct futures for Algeria's Digital Dinar project:

- The optimistic scenario appears most achievable if Algeria successfully modernizes its digital infrastructure, reinforces financial governance, and implements robust mechanisms for monetary flow regulation.
- The moderate scenario is likely if structural barriers persist, especially deficiencies in digital literacy, unequal access to infrastructure, and public hesitancy.
- The pessimistic scenario becomes plausible if Algeria fails to establish adequate cybersecurity protections or if institutional transparency and societal trust are undermined.
- Overall, while the Digital Dinar demonstrates considerable strategic potential to strengthen monetary governance and financial inclusion, its effective implementation depends on systemic modernization, financial literacy campaigns, digital security resilience, and sustained institutional credibility.

VII. Conclusion:

This study concludes that the integration of the Digital Dinar into Algeria's Monetary and Banking Law No. 23-09 marks a strategic turning point in the evolution of the nation's monetary policy. Beyond its technological dimension, the Digital Dinar represents a comprehensive reform initiative designed to enhance monetary governance, deepen financial inclusion, and modernize Algeria's financial infrastructure.

Quantitative and comparative analyses reveal that liquidity held outside the formal banking system constituted more than 35% of the total money supply in 2022. This finding underscores the Digital Dinar's potential to serve as a key instrument for reabsorbing idle cash and strengthening monetary control. The research further indicates that the effectiveness of this innovation will depend on three critical enablers:

- a robust digital and cybersecurity infrastructure,
- a coherent institutional and legislative framework,
- broad public trust fostered through financial literacy and communication initiatives.

The validation of the study's hypotheses confirms that the Digital Dinar can reinforce monetary transmission mechanisms and mitigate the scope of the informal economy, provided its implementation is accompanied by institutional reforms and transparent governance.

Conversely, inadequate digital infrastructure or limited user confidence could constrain its macroeconomic impact, as illustrated by the Nigerian eNaira experience.

Looking ahead, the Digital Dinar holds the potential to transform Algeria's monetary landscape by enabling real-time data monitoring, improving liquidity management, and supporting efforts to curb informality. Its success, however, will require a phased and inclusive implementation strategy, as well as proactive coordination among the central bank, private financial institutions, and technology partners.

Ultimately, the Digital Dinar represents not only an advancement in digital payments but also a strategic redefinition of Algeria's monetary sovereignty. Its long-term trajectory will depend on the nation's ability to balance innovation with stability by developing resilient infrastructure, promoting financial awareness, and fostering digital trust. Within this framework, Algeria is well positioned to harness digital monetary reform as a catalyst for sustainable economic modernization and inclusive financial development.

VIII. Recommendations and Policy Proposals

1. Development of Digital and Financial Infrastructure

The success of the Digital Dinar hinges on Algeria's ability to build a robust and secure digital infrastructure encompassing electronic payment systems, communication networks, and innovative technological solutions. Weak infrastructure would render the initiative fragile, exposing it to operational inefficiencies and security vulnerabilities. National assessments point to persisting technological delays and underdeveloped payment systems as barriers to digital financial transformation. Public policy should therefore prioritize large-scale investments in digitalization, including artificial intelligence, cloud computing, and advanced cybersecurity mechanisms, to foster both resilience and public trust.

2. Public Awareness and Digital Financial Literacy

Public awareness is a cornerstone of digital financial transformation. A lack of digital financial literacy risks creating a widening gap between legislation and societal adoption. Research demonstrates that trust in digital financial instruments is best promoted through nationwide awareness campaigns, university engagement, and active media participation. For the Digital Dinar to succeed, policy must incorporate comprehensive communication strategies that highlight its benefits, address user concerns, and encourage voluntary uptake across different social segments.

3. Public–Private Partnerships in Digital Payment Innovation

The Bank of Algeria should adopt a participatory approach by engaging private-sector actors, particularly fintech companies, in the design and development of digital payment applications. International experiences such as China's rapid CBDC experimentation and Nigeria's eNaira demonstrate that collaboration with electronic payment providers facilitated faster adoption and broader service diversification. Algeria can draw on such models by developing hybrid payment platforms that combine the oversight of the central bank with the flexibility and innovation of the private sector.

4. Strengthening Legal and Security Frameworks

Although the Digital Dinar is formally recognized under Law 23-09, additional legislation remains necessary to address data protection, cybercrime prevention, and dispute resolution in the digital monetary environment. Local studies highlight that financial cybersecurity is a decisive factor in ensuring user trust and preserving financial stability. In this respect, the mandate and capacity of regulatory institutions including the Banking Commission and the Dispute Resolution Authority must be expanded to secure digital monetary operations, strengthening both user protections and systemic resilience.

In conclusion, the success of Algeria's Digital Dinar will be determined not only by legislative and political decisions but also by the country's ability to integrate technological innovation, promote financial literacy, foster institutional cooperation, and ensure good governance. The policy recommendations advanced here provide a practical roadmap for Algeria to leverage the opportunities of digital monetary transformation while minimizing financial, institutional, and security risks.

IX. Bibliography List :

Algeria Invest. (2024, 04 30). *Le dinar numérique, en voie de concrétisation en Algérie: pivot de la transformation financière. Algeria Invest*. Retrieved from https://algeriainvest.com/: https://algeriainvest.com/fr/premium-news/le-dinar-numerique-en-voie-de-concretisation-en-algerie-pivot-de-la-transformation-financiere

Amalou, H. W., & Douidene , L. (2024). The Emergence Of Innovative Payment Systems In Algeria: A Case Study Of Cbdc. *Journal of Management and Economics Research*.

APS Law No. 23-09 Article 2. (2023). *The Possibility of Currency Taking a Digital Form Under the Name "Digital Dinar."*.

Arribi, C., & Boutarfa, S. (2024). Digital Transformation: Opportunities and Challenges of Digitization in Algeria. *Economic Researcher Review, 12(1), 37-55. University of Skikda*. Retrieved from https://asjp.cerist.dz/en/article/249388

Auer, R., Haene, P., & Holden, H. (2023). Central Bank Digital Currency: Financial Stability Implications. *Bank for International Settlements*. Retrieved from https://www.bis.org/publ/work1126.pdf

Benyahia, A. (2023, 07 03). *Nouvelle loi bancaire : Gouvernance de la Banque d'Algérie, finance islamique et dinar digital*. Retrieved from elwatan-dz: https://elwatan-dz.com/nouvelle-loi-bancaire-gouvernance-de-la-banque-dalgerie-finance-islamique-et-dinar-digital

BIS, B. (2020). An Opportunity for the Monetary System Annual Economic Report. *Central Bank Digital Currencies.*

Caccia, E., Tapking, J., & Vlassopoulos, T. (2024). Central bank digital currency and monetary policy implementation. *European Central Bank*, 27. Retrieved from https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op345~4b4eeee055.en.pdf

Chaib , M., & Hamadi , M. (2023). Cyber security challenges for information systems in banks and financial institutions. *Inara Review of Economic Managment and Accounting Studies, 4*(1). Retrieved from https://asjp.cerist.dz/en/article/241101

Das, M., Mancini-Griffoli, T., & Nakamura, F. (2023). Implications of Central Bank Digital Currencies for Monetary Policy Transmission. *International Monetary Fund*. Retrieved from https://www.imf.org/-/media/Files/Publications/WP/2024/English/wpiea2024226-print-pdf.ashx

ECB. (2024). The impact of central bank digital currency on central bank profitability, risk-taking and capital (ECB Occasional Paper No. 360). European Central Bank, p. 14. *ECB Occasional Paper* .

Garratt, R., Yu, J., & Zhu, H. (2022). The Case for Convenience: How CBDC Design Choices Impact Monetary Policy Pass-Through. *Bank for International Settlements*. Retrieved from https://www.bis.org/publ/work1046.pdf

International Monetary Fund. (2024). *Cyber resilience of the central bank digital currency ecosystem (Fintech Note No. 2024/003)*. Retrieved from IMF: https://www.imf.org/en/Publications/fintech-notes/Issues/2024/08/27/Cyber-Resilience-of-the-Central-Bank-Digital-Currenc

KHATOUI, M. (2024). Central Bank Digital Currencies Adoption: Threat or Opportunity? *Journal of Excellence for Economics and Management Research, 8*(1). Retrieved from https://asjp.cerist.dz/en/article/245485

Labonte, M., & Nelson, R. (2022). *Central Bank Digital Currencies.* Congressional Research Service.

Mecheri, F., & Tabet, A. (2025). The Impact of Central Bank Digital Currency on Commercial Banks. *Economic and Management Research Journal*.

MEZIANE , M. T. (2024). The Impact Of Algeria's Monetary Policy On The Country's Economic Growth Throughout The Period (1997–2022). *Journal of Contemporary Business and Economic Studies, 7*(2).

Qassouri, I., & Abba, F. (2024). The implications of issuing the Algerian digital dinar 'E-dzd' under Monetary and Banking Law No. 23-09. *Revue des Economies financières bancaires et de management*.

Sharara, J., & Baqbaq, L. (2023). Central Bank Digital Currencies: Challenges and Requirements of the Algerian Digital Dinar under Law No. 23-09. *Tabnah Journal of Social and Human Sciences*.