JOURNAL OF AL MAYADINE AL IKTISSADIA
VOL: 04, ISS: 01, 2021, Pages (357/371)
P-ISSN: 2716-7615 E-ISSN: 2716-8565
DOI: 10.47173/2134-004-001-020

Measuring indicators of the development of the banking sector in the face of obstacles to financing economic activity in Algeria during the period (2000-2019)

Adel ZEGRIER *
Eloued University, Algeria
zegrier-adel@univ-eloued.dz

Karima HABIB
Eloued University, Algeria
habib-karima@univ-eloued.dz

Abdellatif TIGANE
Khenchela University, Algeria
abdellatiftigane@gmail.com

Received: 13/11/2021 **Accepted: 29/11/2021** **Published: 31/12/2021**

Abstract:

The banking sector plays an essential role in the development process through basic services, such as mobilizing financial resources from surplus economic units and transferring them to units with deficits in a way that ensures optimal allocation of resources, a monitor for the businesses of companies that borrow from banks, a facilitator for trading, and a provider of the hedging mechanism and diversification of risks.

In the case of Algeria, pressures have increased on the banking sector due to the weak financing role of the stock exchange to finance economic activity and achieve the required growth rate. The intensity of pressures increased due to internal and external challenges, such as the ineffectiveness of financial and banking activities.

In this context, this paper aimed to present the development of the Algerian banking system while listing the most critical challenges facing it. Moreover, measuring indicators of the development of the banking sector, especially concerning the traditional activity of mobilizing deposits and providing credit. The study found that significant functional and structural imbalances hinder banking work by measuring those indicators, such as cash circulation outside banks, which requires more reform and modernization efforts that focus on developing the macroeconomic and banking activity environment.

Keywords: banking sector; economic activity; deposits; credit

JEL Classification Codes : E00; E51; G21

* **Corresponding author**.

Introduction:

The economic literature is concerned with analyzing the relationship between the banking sector and economic growth. The reason for this is that the banking sector represents a fundamental pillar of the development process through the essential services that it provides to the economy, such as collecting financial resources from economic agents with a financial surplus and then transferring them to those with a financial deficit, which represents the role of the financial intermediary, while ensuring the optimal allocation of resources. Moreover, monitor the business of corporate borrowers from banks, trading facilitators, providers of hedging mechanisms, and diversification of risks. Accordingly, these roles allow maximizing the economic return and stimulating growth and development.

In this context, the practical reality has proven the existence of several obstacles, which embodied in many challenges, which were and still are the cause of the suffering of the Algerian banking environment, and in the weak financing efficiency of the banking sector and its inability to play the development role in the best way.

This paper gives a brief overview of the Algerian banking sector while monitoring the internal and external challenges. Furthermore, we measure development indicators to spot inefficiencies. Finally, we put the essential concluding remarks and some recommendations.

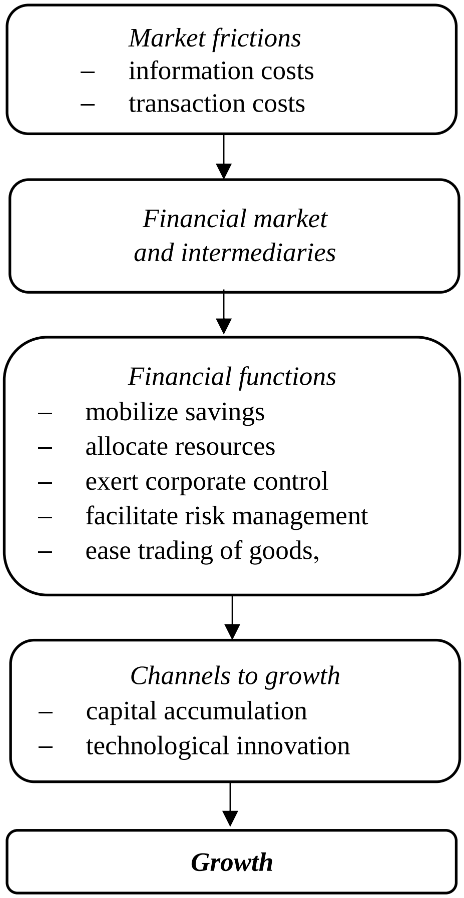
1- Literature review

In this framework, (TAPEN 2011, p. 65) considered that J. SCHUMPETER (1911) was the first to provide a detailed indication of how financial transactions took a central role in economic growth. He did not use a modern dialect (financial transactions), but he used the banker as an example. Instead of using the term economic growth, use the term economic development. On the same approach, (Simplice 2013, p.2) confirmed that SCHUMPETER (1911) believes in the importance of financial services for economic growth to improve productivity by enhancing innovation technology and helping entrepreneurs to have the best chance of success in the innovation process. Moreover, mobilization of savings facilitates productivity, efficient allocation of materials, reduced problems arising from information asymmetry, and improved risk management. He further emphasized that these impacts could create a macroeconomic framework conducive to robust economic growth.

From the practical side, (Ross 1997, p. 691) saw that finance could affect economic growth, according to the theoretical approach that he developed, see figure 1. To organize the extensive literature on finance and economic activity, he divided the functions of the financial system into five functions, which are:

- Facilitating trading, hedging, diversification, and pooling of risks,
- allocate resources,
- Monitoring managers and exercising institutional oversight,
- Mobilize savings, and facilitate the exchange of goods and services.

Figure number (1): A Theoretical Approach to Finance and Growth



Source: Ross, L. (1997). Financial Development and Economic Growth: Views and Agenda. Journal of Economic Literature, 35(2), p 691

In the literature more relevant to this study, (Louri & Migiakis, 2019, p. 4) aimed to examine the role of financing economic activity in Greece. By dealing with two main questions: (a) whether and how much bank flexibility determines the provision of credit to the economy and (b) how does net inflows/outflows of bank credit or market financing affect economic activity. (Al-abedallat, 2017, p. 139) examined the role of the banking sector in economic development in Jordan by studying the size of credit facilities provided by banks. (Anyanwu, 2010, p. 32) sought to study developments in the banking industry and the real sector of the Nigerian economy and how reform programs have affected the flow of credit to the real sector. He also recognized that the sector faced challenges outside financing and recommended policy interventions to make banking sector reforms more effective.

2- Overview of the Algerian banking system

In this framework, we present the essential features of the banking system as follows:

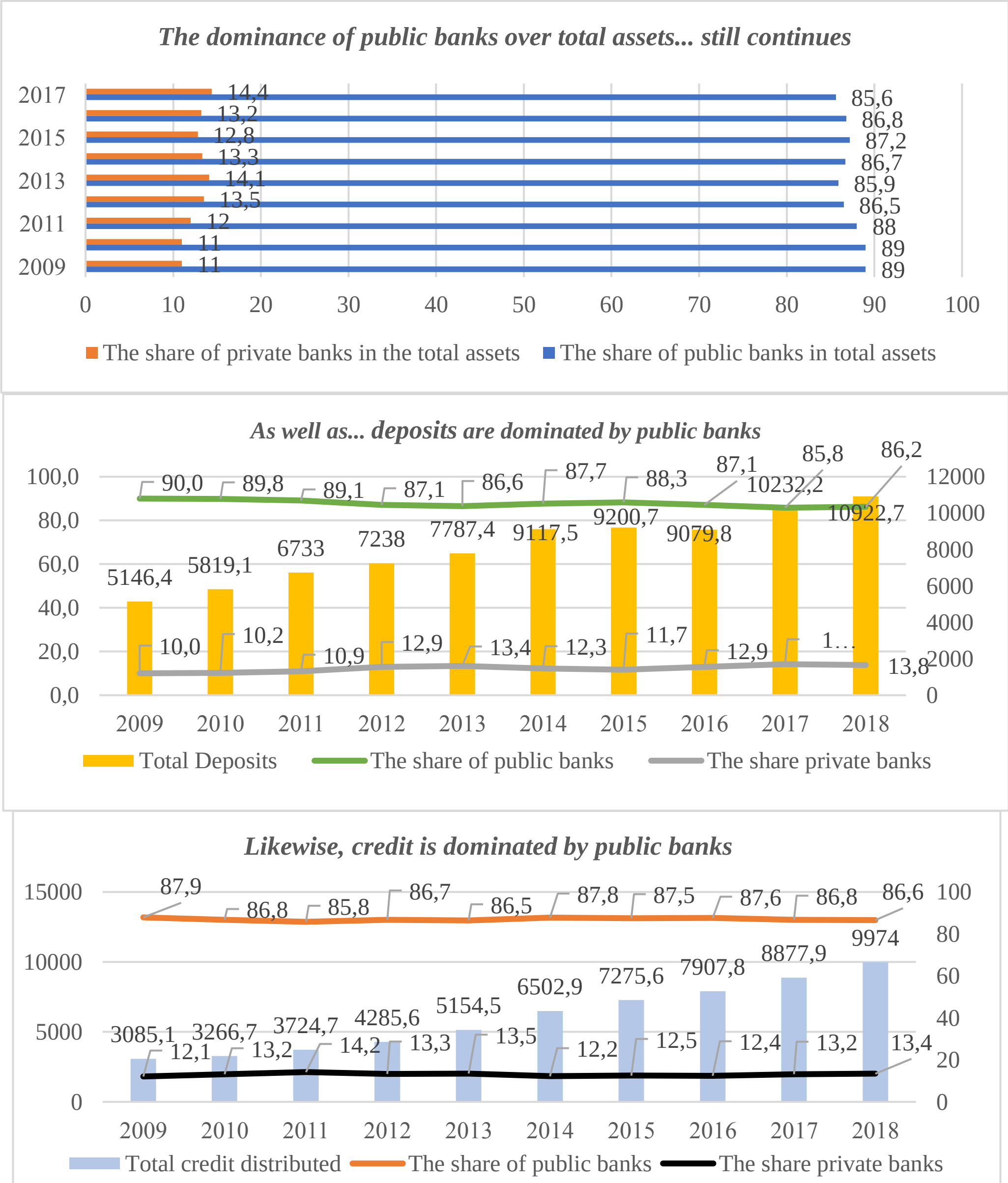
2-1 State-owned banks continue to dominate the banking system. The proportional share of the six state-owned banks accounted for 85.6% of the banking system's total assets at the end-2017. As for private banks, their share accounted for 14.4% (see figure 2). Within public banks, the share of assets of the two largest banks, with roughly equal shares, represents almost half of the sector's total assets. As for private banks, the share of the first three private banks is 44.74% of the total assets of private banks (Bank of Algeria, 2017, p. 72). Likewise, in terms of deposit mobilization and credit distribution activities, the share public banks accounted for 86.2% of the total deposits and 86.6% of the total credit at the end-2018; what remains is the share of private banks (see figure 2).

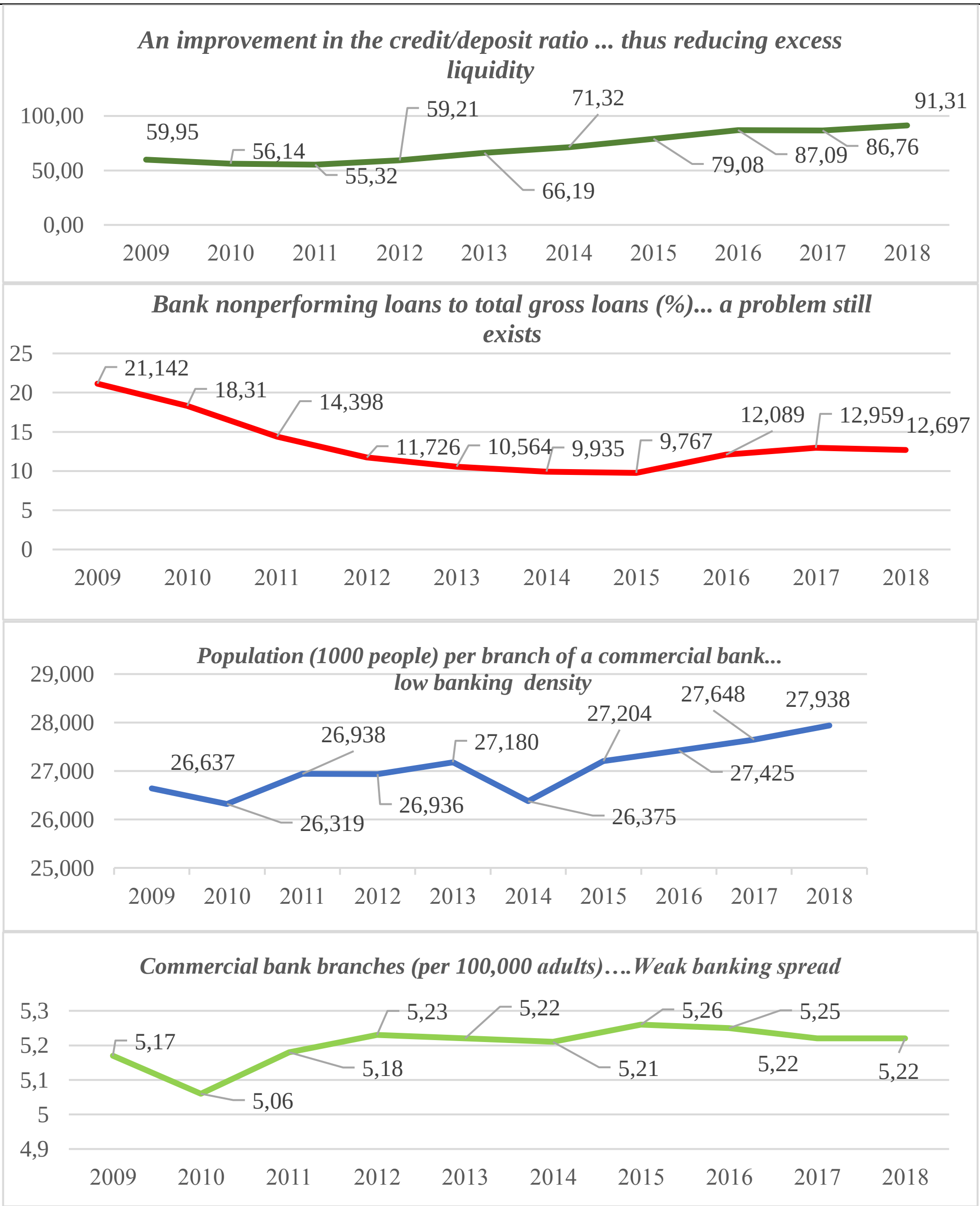
All this reflects the unhealthy phenomenon that the Algerian banking system suffers from, represented by the concentration in assets, which led to the absence of real competition and discouraged the motivation towards developing banking services in terms of quality, diversity, and banking intermediation index. In addition, the Algerian banking sector occupies the lowest ranks in the Mediterranean countries in terms of essential banking services directed to individuals and small and medium enterprises.

2-2 The banking system's ineffectiveness is due to the absence of real competition in the banking market due to the reliance on the monopoly situation that the economic system still guarantees to the banking sector. The banking system is efficient if it can allocate resources optimally, which means the process of distributing the available funds to the different terms of use and in a way that ensures the appropriateness between liquidity needs and achieving return and profitability, which are the two issues that banks still suffer from as a result of reasons related to the policy of mobilizing deposits and distributing credit. At this point, the credit-deposit ratio (2009-2018) indicated significant levels of excess liquidity, but there is an improvement in this ratio, which accounted for 91.3% at the end-2018 (see figure 2).

2-3 The problem of non-performing loans. The reason for this is the policy of expansionary lending by public banks to ensure the financing of public sector institutions without considering the conditions of economic feasibility such as the effective use of loans and others. As a result, these banks lost the ability to manage and recover those loans. In this context, the bank non-performing loans accounted for 12.7 % of total gross loans at the end-2018 (see figure 2).

Figure number (2). Algeria: Evolution of Banking Sector
Amounts (in billions of DA)- Share and ratio (in percentage)





Source: Prepared by the authors depending on:

- Bank of Algeria, Annual Report on Economic and Monetary Development of Algeria (2010,2013,2015,2017,2018).
- National Statistics Office, ALGERIA DEMOGRAPHY 2019, N°890/Bis.
- https://data.worldbank.org/indicator/FB.AST.NPER.ZS?end=2018&locations=DZ&start=2009&view=chart
- https://data.worldbank.org/indicator/FB.CBK.BRCH.P5?end=2018&locations=DZ&start=2009

2-4 Low density and weak spread in the banking sector. The first indicator expresses the population (one thousand people) for each branch, while the second indicates the number of commercial bank branches (per 100,000 adults). For these two indicators, we did not notice any significant changes. Small changes result from the population increasing at a higher rate than the number of branches and vice versa. The banking density indicator is low, and the banking spread indicator is weak compared to other countries (see table 1). that means that large percentages of the population are unbanked. In other words, those who do not have access to banking services.

Table number (1): Banking density and banking spread in selected Arab countries compared to Algeria at 2018

Country	Number of bank branches	Population in thousands	Banking density indicator (1000 people per branch)	Banking spread indicator* (branches per 100000 adults)
Algeria	1524	42578	27.938	5.22
Tunisia	1913	11551	6.038	22.1
United Arab Emirates	823	9367	11.381	10.74
Jordan	844	10309	12.214	14.53
Lebanon	1101	6229	6.351	22.27
Saudi Arabia	2083	33414	16.041	8.34

$$Banking\ density\ indicator = Population\ in\ thousands / number\ of\ bank\ branches$$

$$Banking\ spread\ indicator = (Number\ of\ bank\ branches / The\ number\ of\ the\ adult\ population\ by\ 100000)$$

Source: Prepared by the authors depending on:

- Bank of Algeria, Annual Report on Economic and Monetary Development of Algeria 2018. P:75.
- Central Bank of Tunisia, Annual Report 2018, P: 117.
- Central Bank of the UAE, Annual Report 2018, P: 42.
- Central Bank of Jordan, Fifty-Fifth Annual Report 2018, P: 36.
- Association of Banks of Lebanon, Annual Report 2018, P: 91.
- Saudi Arabian Monetary Authority, 55th Annual Report 2019, P: 73.
- Arab Monetary Fund, The Joint Arab Economic Report 2020, P: 47.
- * Statistics are available from the following website: https://data.worldbank.org/indicator/FB.CBK.BRCH.P5

2-5 The primary and secondary money market is small in size. The banking sector needs a developed money market, which secures cash and provides payment tools. It also allows banks to finance economic activity and enables monetary authorities to control credit and money supply effectively. Several indicators measure the degree of growth of the money market, perhaps the most important of which is the total volume of deposits, the development of the total volume of loans, the multiplicity and diversity of monetary and financial assets, the multiplicity and diversity of banks dealing in the market and their ability to provide payment tools and to carry out the process of financing economic activity at the lowest possible cost. At the same time, the financial market is considered semi-liquid savings and long-term credit market. They were opening the doors of the Algiers Stock Exchange in January 1998 (a young stock market); it has few transactions, depriving banks of the advantages of dealing with this market. That requires more reform efforts and the provision of specialized expertise with high technical capacity and efficiency.

In addition to the internal challenges facing Algeria's banking sector, banks are experiencing external pressures imposed by the collapse of financial markets in East Asia and elsewhere, which has created many external challenges, namely, global variables and contemporary banking standards, outlined below:

a. The Agreement on the Liberalization of Financial Services of the World Trade Organization (WTO) places Algerian banks in a difficult position to develop to compete with their foreign counterparts under this Agreement. Indeed, banks are small and unprofessional and do not play influential roles in providing banking services because they are not available on modern banking mechanisms and systems, making them unprepared for resistance and competition.

b. The international banking standards set out in the decisions of the Basel Committee present a challenge to public banks, as they continue to suffer from the problem of their small capital size.

3- Data and methodology

This study analyzes the evolution of some banking sector development indicators, which relate to financing economic activity through the role of banks as financial intermediaries who collect deposits and provide loans and credit facilities to various economic sectors. In addition to examining other indicators that describe the financial depth of the Algerian banking sector. In this context, table 2 was prepared based on both (Bhattacharyay & Nerb, 2002, pp. 29-33) and (The World Bank and International Monetary Fund, 2005, pp. 15-18) a, which shows the indicators adopted in the process of evaluating the role of the Algerian banking sector in financing economic activity.

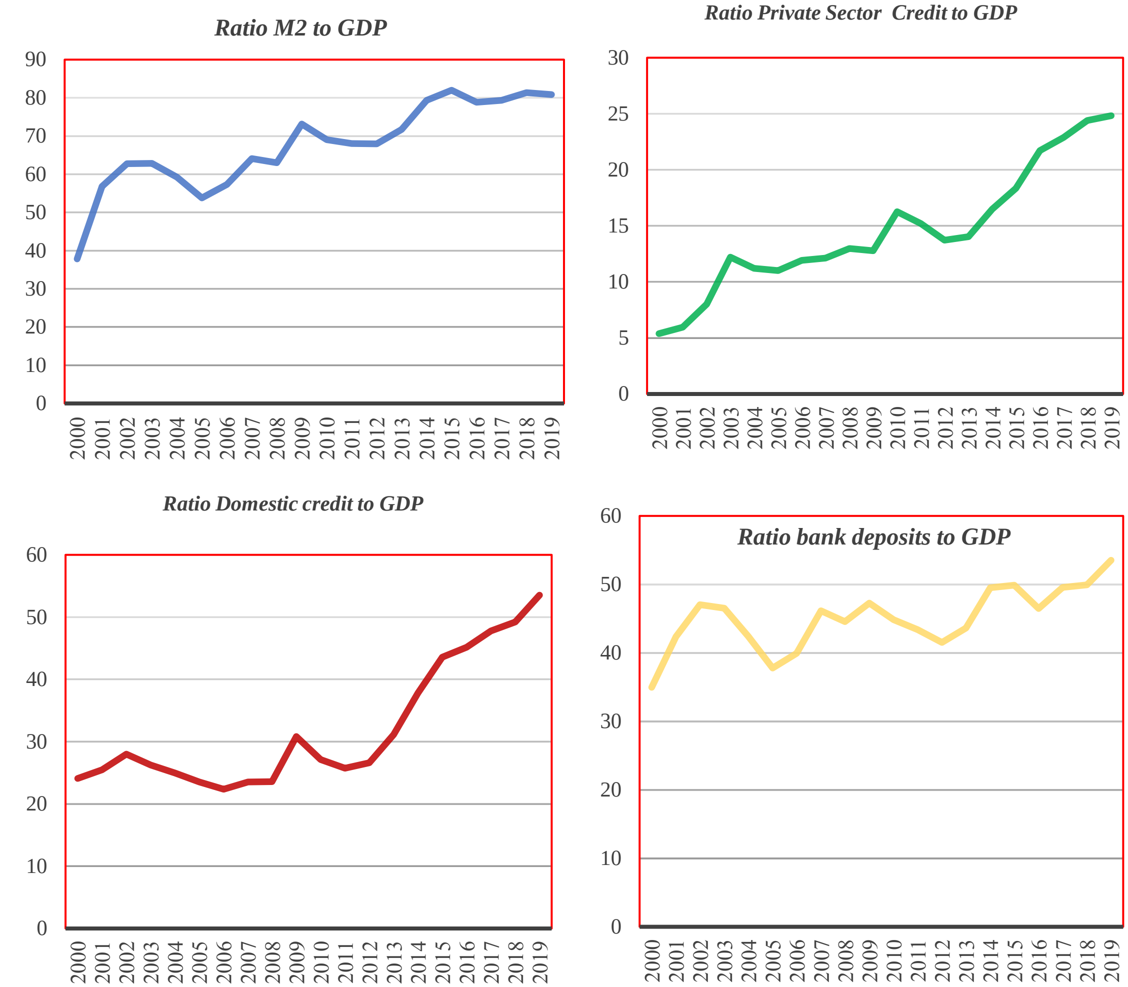
Table number (2): The indicators of evaluating the role of the Algerian banking sector in financing economic activity

Indicator	*Comment*	*Source*
Ratio M2 to GDP	An increase in the money supply indicates more money available for borrowing in the economy. According to the law of demand, this increase in the money supply lowers interest rates, which motivates the business sector to borrow to finance their investments, which leads to an increase in the volume of total output. This ratio represents the degree of cash or liquidity in the economy, and excess liquidity may cause a rebound in inflation or create excess aggregate demand.	https://data.worldbank.org/indicator/FM.LBL.BMNY.GD.ZS?locations=DZ
Ratio Private Sector Credit to GDP	Which measures the availability of credit, the depth of banking work, and the level of financial intermediation in the economy, and we mean the degree of participation of the banking system in providing facilities and loans to the private sector. We assume that the credit provided to the private sector increases the volume of investment and productivity compared to the public sector. However, a sharp increase in this indicator may indicate an over-investment by the private sector, which may lead to a deterioration in the quality of the credit portfolios of the banking sector and, accordingly, the cash flows of financial institutions, net income and solvency.	https://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS?locations=DZ
Ratio Domestic Credit to GDP	This ratio indicates the level of credit provided within the economy. However, sharp increases in the demand for credit over a long period involve the risk of excessive investment (unproductive investment), which may cause the credit portfolio of banks to deteriorate.	Authors' calculation based on: https://www.bank-of-algeria.dz/html/bulletin_statistique.htm
Ratio bank deposits to GDP	This ratio measures the ability of banks to mobilize deposits and attract savings.	

Source: Prepared by the authors

Thus, the time series were prepared based on the indicators presented in table 2 (2000-2019); (see figure 3).

Figure number (3): The Evolution of indicators evaluating the role of the Algerian banking sector in financing economic activity during the period (2000-2019)



Source: Prepared by the authors

4- Results and discussion

At this point, we analyze and discuss the development of indicators that evaluate the role of the banking sector in financing economic activity, respectively:

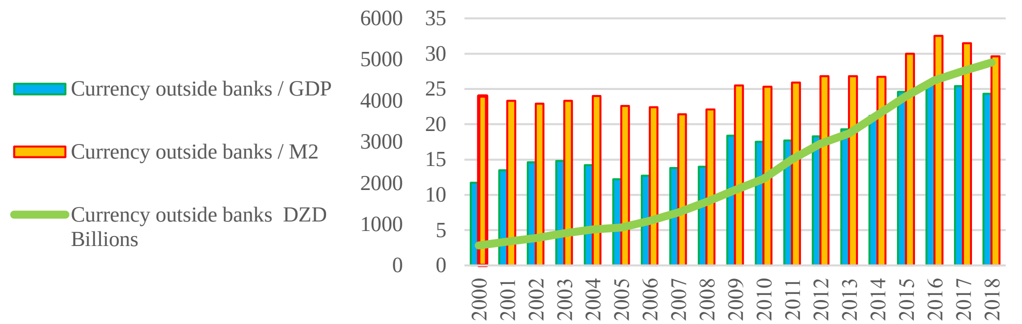
4-1 Ratio Domestic Credit to GDP

According to (Lahreche, Jewell, & Tapsoba, 2014, p. 3), record-high levels of liquidity in the 2000s. That is due to the necessity to deposit hydrocarbon flows in dinars in the banking sector. As a result, the rapid accumulation of net foreign assets (NFA) - fueled by significant hydrocarbon exports and higher prices - and sizeable public spending (both current and capital) have led to a rapid rise in liquidity. However, (Boucekkine, Laksaci, & Touati-Tliba, 2021, pp. 19-26) indicate that in the Algerian economy, the holding of "cash" is de facto a prerequisite for conducting a large share of transactions on goods and services is indicative of the "practices" of the informal economy where cash prevails as the sole method of payment. The scale of "cash" in the economy limits the scope for monetary policy, especially since the demand for fiat currency is unstable. All this has caused suffering to the effectiveness of monetary policy through interest rates.

In the same context, we point out that controlling the money supply in Algeria faces two main challenges,

a. Including significant currency levels outside banks (cash leakage) means the weak ability of banks to collect deposits. See figure 4.

Figure number (4): The evolution of currency outside banks (cash leakage) in Algeria during the period (2000-2018)



Source: Prepared by the authors depending on:

Bank of Algeria, Annual Report on Economic and Monetary Development of Algeria (2004, 2008, 2013, 2018), pages 173-242-223-159.

During nineteen years, the currency outside the banks jumped from 485.5 to 4926.8 billion DZA (Multiplied 10.27 times). In the same context, the average ratio of currency outside banks to GDP and currency outside banks to M2 during the same period amounted to 17.57% and 25.61%, respectively. The reason for this is the public's preference for cash dealing, the lack of its banking culture, compactness and dealing on the black market, and the lack of effectiveness of the banking sector in mobilizing deposits and directing them to productive loans.

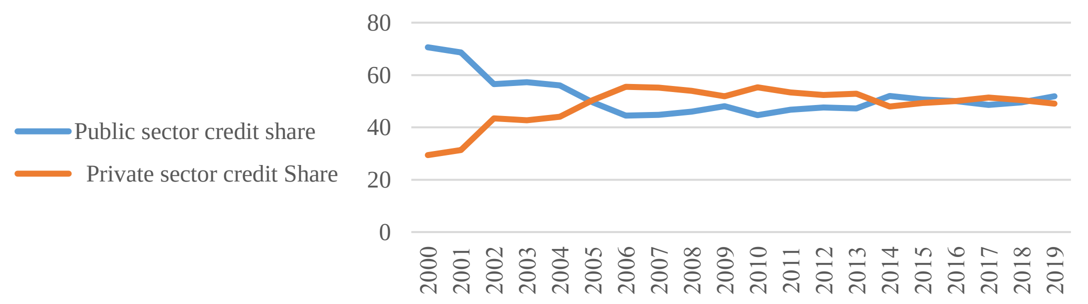
b. The volatility of the barrel of oil prices affects the amounts of demand deposits in the hydrocarbon sector of banks, which are within M2.

4-2 Ratio Private Sector Credit to GDP

This indicator scored low values; this reflects the low level of involvement of the Algerian banking sector in providing banking services to the private sector. The average ratio of credit to the private sector to GDP amounted to 16.47% (2000-2019). That could be due to: Public banks 'monopoly in the areas of deposit and lending, which prefer public sector financing, especially the energy and water sectors, and this creates crowding out for the private sector in obtaining the necessary financing. See figure 5.

Likewise, (Auclair, Jewell, Souissi, & Boukezia, 2017, p. 45) indicated that insufficient access to finance is holding back the growth of the private sector. The financial system is small and shallow, and state-owned banks dominate the banking sector. Credit to the private sector, small and medium-sized companies and companies operating in tradable sectors remains low. That reflects the small size of the private sector. Inadequate financial infrastructure includes exaggerated loan guarantee requirements, lengthy bankruptcy settlement period, and prevalence of state-directed lending. In addition, the Algerian capital markets are nascent, and the market value is less than 1% of the GDP. Several factors impede the development of financial markets, including lengthy administrative procedures and subsidized bank lending that make market financing unattractive.

Figure number (5): The evolution of share of both the public and private sectors in total credit during the period (2000-2019)



Source: Prepared by the authors depending on:

- Bank of Algeria, Annual Report on Economic and Monetary Development of Algeria (2004, 2008, 2013, 2018), pages 173-242-223-159.
- Bank of Algeria 2020, QUARTERLY STATISTICAL BULLETIN, N°49: March 2020. P 13.

4-3 Ratio Domestic Credit to GDP

This indicator showed some volatility during the period (2000-2012). Before, it took an upward trend where it reached 53.5% as the highest value in 2019, which is due to the will of the state to provide the necessary financing for programmed investments in economic recovery programs and to provide bank financing to support the establishment of small and medium economic enterprises. The low ratios of total credit extended to the economy indicate the low financing capacity of Algerian banks and their weak contribution to financing the national economy by supporting productive investments. According to (Bouazza, Ardjouman, & Abada, 2015, p. 107), there are several reasons behind this, which are:

i. The financial constraints faced various economic establishments, including the high lending interest rate, the excessive collateral requirements, and the immaturity of financial intermediaries' experience.
ii. The Algerian banking system suffers from the domination of state-owned banks with some of the highest credit concentration rates in the world. Moreover, state-owned banks dominate the financing of economic activity in Algeria in light of weak capital markets and non-bank financial institutions.
iii. The problem of excess liquidity, which describes the underdevelopment of the banking sector, the accumulation of money without exploitation, is a cost to banks and the economy, which needs funds to finance its production investments.

4-4 Ratio bank deposits to GDP

This indicator witnessed fluctuation between rising and fall, and it reached its maximum level, which amounted to 53.5% in 2019. In general, there is weakness in the ability of banks in deposit mobilization in Algeria, which is due to the following reasons:

iv. Individuals' lack of banking habits contributed to the lack of savings that the banking sector attracts. According to (Oxford Business Group, 2018, p. 54), World Bank data indicated that the proportion of adults with a bank account rose from a third in 2011 to half in 2014, while the proportion of the adult population with a debit card rose from 13.5% to 21.6% over the same period. That represents remarkable progress in a short period. Despite this, the account penetration levels in Algeria still fall short of the upper-middle-income country average (70.5%). Furthermore, the religious impulse played a role in keeping savers away from dealing with banks despite the shortage of Islamic banks.
v. Individuals prefer cash transactions for tax evasion and the spread of informal economy transactions.
vi. The fluctuation of the prices of a barrel of oil in the global markets affects the bank deposits of the hydrocarbon sector in the form of demand deposits.
vii. High inflation levels may push savers to transfer their financial savings to tangible assets such as gold and others instead of deposits with banks due to the low actual interest rates on deposits.

5- Concluding remarks and recommendations

In light of the ineffectiveness of the role of the Algerian Stock Exchange and the reliance of financing economic activity on credit provided by banks, which faces several internal and external challenges that have limited the effectiveness of its financing role, which represents the weakness of the indicators of the development of the banking sector.

That requires strengthening reform and modernization efforts on several economic and banking levels, including:

a. **Create a well-developed macroeconomic environment and an attractive investment climate** through the development of legislation and laws regulating the economic sector, particularly those relating to property rights, as well as the need to eliminate administrative corruption and promote the principles of public governance, in order to enhance investor confidence. in addition to strengthening infrastructure for economic activities in general. And banking activities in particular. These relate mainly to the telecommunications sector while promoting technological progress.

b. **Increase investment in national human capital** to build scientifically qualified and highly skilled human resources trained in using the latest technical and productive means while creating a competitive atmosphere based on implanting the spirit of initiative, incentives and rewards related to individual productivity.

c. **Generate an appropriate banking environment and establish corporate governance rules** by creating the development and strengthening of the supervisory and supervisory role of the Bank of Algeria on banks. Not to mention enhancing the levels of disclosure and transparency in the banking system. By increasing levels of awareness of the importance of corporate governance.

d. **Re-engineering the business environment of Islamic banks to suit the needs of individuals and their Islamic religion** will attract the savings of individuals who hate dealing with banks for religious motives and the prohibition of usury, which may also reduce the problem of cash circulation outside banks.

e. **Increase investment in human capital working in banks** through internal or external training on Dealing with developments in investment and Islamic banking, risk management.

f. **Providing various banking services to individuals and companies within the universal banking** framework, including establishing investment funds and credit units or what is known as investment trustees and others.

Bibliography

1. Al-abedallat, Z. A. (2017). The Role of the Jordanian Banking Sector in Economic Development. International Business Research, 10(4), pp. 139-147. doi:10.5539/ibr.v10n4p139
2. Anyanwu, C. M. (2010). An overview of the current banking sector reforms and the real sector of the Nigerian economy. Economic and Financial Review, 48(4), pp. 31-54.
3. Auclair, G., Jewell, A., Souissi, M., & Boukezia, R. (2017). ALGERIA SELECTED ISSUES, IMF Country Report No. 17/142. Washington, D.C: International Monetary Fund.
4. Bank of Algeria. (2017). Annual Report on Economic and Monetary Development of Algeria.

5. Bhattacharyay, B., & Nerb, G. (2002). LEADING INDICATORS FOR MONITORING THE STABILITY OF ASSET AND FINANCIAL MARKETS IN ASIA AND THE PACIFIC. Asia-Pacific Development Journal, 9(2), pp. 17-50.
6. Bouazza, A. B., Ardjouman, D., & Abada, O. (2015, April). Establishing the Factors Affecting the Growth of Small and Medium-sized Enterprises in Algeria. American International Journal of Social Science, 4(2), pp. 101-115.
7. Boucekkine, R., Laksaci, M., & Touati-Tliba, M. (2021). LONG-RUN STABILITY OF MONEY DEMAND AND MONETARY POLICY: THE CASE OF ALGERIA. Université catholique de Louvain, Institute of Economic and Social Research. Belgium: LIDAM DISCUSSION PAPER/ IRES /021 /01.
8. Lahreche, A., Jewell, A., & Tapsoba, S.-A. (2014). ALGERIA SELECTED ISSUES, IMF Country Report No. 14/34. Washington, D.C: International Monetary Fund.
9. Louri, H., & Migiakis, P. (2019). Financing economic growth in Greece: lessons from the crisis (No.262). BANK OF GREECE.
10. Oxford Business Group. (2018). THE REPORT Algeria 2018. Retrieved 10 29, 2021, from https://www.pwc.fr/fr/assets/files/pdf/2019/02/pwc-the-report-algeria-2018.pdf
11. Ross, L. (1997). Financial Development and Economic Growth: Views and Agenda. Journal of Economic Literature, 35(2), pp. 688-726.
12. Simplice, A. A. (2013). Finance and growth: Schumpeter might be wrong in our era. New evidence from Meta-analysis. University Library of Munich, Germany: MPRA Paper 32559.
13. TAPEN, S. (2011). THE ROLE OF FINANCIAL INTERMEDIATION IN ECONOMIC GROWTH: SCHUMPETER REVISITED. In Economic Theory in the Light of Schumpeter's Scientific (pp. 63-70). India: Spellbound Publishers.
14. The World Bank and International Monetary Fund. (2005). Financial Sector Assessment A H A N D B O O K. doi:10.1596/978-0-8213-6432-1