Ilkogretim Online - Elementary Education Online, 2024; Vol 23 (Issue 2): pp. 308-323
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2024.02.23

Revisiting The Supply-Leading Hypothesis On The Algerian Economy: An Analytical Study For The Period (2016-2022)

MESSIAD Meriem Faculty of Economics, Commerce, and Management Sciences", University of 20 August 1955 Skikda (ALGERIA), E-mail: messiadsihem@yahoo.fr

DAOUI Alouane Faculty of Economics, Commerce, and Management Sciences", University of 20 August 1955 Skikda (ALGERIA), E-mail: Daoui_alouane@yahoo.com

Received: 05/2024, Published: 06/2024

Abstract:
This article focuses on the relationship between economic growth and bank finance in the Algerian economy during the period 2016-2022. In this context, the first two hypotheses are that economic growth is one of the determinants of monetary supply and financial development. The second is that financial development and increased bank loans, i.e. bank financing, affect expulsion on Algeria's GDP. To determine the nature of this relationship, we followed the analytical and descriptive approach based on the Bank of Algeria's data and its analysis of economic, monetary and policy changes during the study period. This allowed us to link financial development indicators such as bank loans to the private sector as a proportion of the gross domestic product (GDP) and the monetary mass index, thus concluding that the study period was characterized by a weak level of fiscal depth, meaning that the banking system does not contribute properly to financing economic activity. In addition, economy-oriented loans represented the most important source of monetary expansion through the Money Supply Index.

Keywords: financial development; bank financing; money supply index; loans towards the economy index; economic growth.

Introduction:
The financing sources for economic development in developing countries differ from those in advanced economies. Algeria, among the developing nations, exhibits an economic structure increasingly reliant on hydrocarbon revenues. To outline economic development in Algeria, economic policy heavily depends on monetary policy and relies on comparative advantage as a turning point towards a productive economy. This policy aims to achieve developmental plans aiming at diversifying the national economy, especially after the shift in the economic development trajectory following the debt crisis that struck the Algerian economy in 1986, causing a painful blow with enduring consequences despite the nation's abundant resources.

In the quest for alternative non-tax revenues to achieve economic diversification and avoid oil shocks, **Algeria embarked on various reforms, with banking financing being a source through loans directed towards economic revitalization and institutional funding**. Undoubtedly, the banking sector serves as a link between surplus and deficit entities, that is, between investors and savers. It is observed globally, especially in developed countries, that most of them have advanced credit markets. Developed countries financially grow at a faster pace, while those with inefficient credit systems may fail economically. As for emerging economies in general and the Algerian economy in particular, bank loans may be key drivers of economic growth.
Therefore, aiming to explore the causal relationship between bank loans and economic growth, this research will revolve around the following problem:
What is the nature of the relationship between economic growth and banking finance in the Algerian economy?

Significance of the Study:
The existence of a relationship between economic growth and financial funding is indisputable, as many researchers have worked on this issue and confirmed it positively. More importantly, the direction of the causal relationship between financial funding and economic growth is crucial. When the relationship shifts from financial development to economic growth, this is referred to as the supply-leading hypothesis. Thus, the evolution of the financial system becomes a determinant factor for economic growth.

Study Hypotheses:
- Bank financing is considered one of the determinants of economic growth in Algeria.
- Economic growth is considered a catalyst for the financial development of Algeria.

Study Methodology:
In addressing the problem statement and hypotheses, the study adopted a descriptive methodology to analyze the causal relationship between the main variables, economic growth, and bank financing. The study described the data for the years from 2016 to 2022, then analyzed it according to economic development and accompanying changes. It focused on linking indicators contributing to measuring financial development, particularly banking development indicators**, (PL/GDP, M2/GDP); PL:** private loans/ **GDP**: Gross Domestic Product, M2: measure of the money supply/ GDP :g**ross domestic product.**
Study Axes:
Axis 1: The theoretical framework between economic development and bank financing.
Axis 2: Causality of the relationship between economic growth and financial development.
Axis 3: Analysis of the relationship between financial development indicators and economic growth in Algeria during the period (2016-2022).

I. Theoretical Framework:

I.1 Bank Loans:

A loan is "a measure of the ability of moral (legal) individualto obtain the present value (money) in exchange for a commitment to pay in the future, often in cash. In other words, it is a promise to pay after the expiration of the borrowing and loan period."(Salah Eldin Hassan,1998,p111)

Bank loans are defined as services provided to customers, supplying individuals and institutions in society with the necessary funds. The debtor commits to repaying the funds, their interest, applicable fees, and expenses either in a lump sum or in installments on specified dates. This process is supported by providing a range of guarantees that ensure the bank recovers its funds if the client ceases to make payments. (Abdel Motaleb,2000,p103)

As per the amended Algerian Monetary and Credit Law of 2003, Article 86 defines a loan as follows: "A loan operation, in the concept of this matter, constitutes any act in exchange for a consideration by which someone places or promises to place funds at the disposal of another person, or takes, for the benefit of the other person, a commitment to sign, such as a standby guarantee, sponsorship, or guarantee."

Elements of the loan include: (El-taher latrach, 2007, p55)

- **Trust:** Referring to fidelity and adherence to the agreed-upon time or duration during repayment.
- **Credit amount:** Represents the monetary value of the loan.
- **Duration:** Signifying the need for a time gap between the disbursement of funds (loans) and the repayment deadline.
- **In return:** The process of providing loans is accompanied by a certain level of risk, justifying compensation in the form of interest.

I.2 Economic Development:

1.2.I. Definition: Economic development encompasses measures, policies, and initiatives aimed at changing the structure and foundation of the national economy. It seeks to achieve a rapid and sustained increase in the real average income per individual over a specific period, benefiting the majority of the population. (Al-Zein,2012,p82)

Economic development is the process through which an increase in the average individual's share of real income is achieved over time. (Mohamed ajmaia, Ghaiman ,2002,p62)

It can also be defined as structural changes occurring in the national economy across various economic, political, social, and organizational dimensions to improve the quality of life and provide a decent life for all members of society(Abd-elhamid Abd-elmotalib,2006,pp472-473). Economic development is a planned and comprehensive process for all sectors, involving changes and developments in the structure of the national economy, accompanied by a continuous increase in real per capita income.

It's important to note several differences between economic growth and economic development. While growth indicates spontaneous or natural progress without individual and societal intervention, development is an intentional process seeking rapid growth within planned frameworks and specific time periods.

Furthermore, growth implies increases in the population within a specific region or an increase in the quantity or value of goods and services produced in the local economy. It does not necessarily lead to qualitative improvements in life. On the other hand, economic development indicates an improvement in the quality of life that aligns with changes and is not necessarily tied to increases in population or its composition. It involves the quantity and nature of local employment opportunities and the quantities and prices of goods and services produced locally. Therefore, economic development is a structural and transformative process. (Triki Al-quraichi,2010,pp40-41)

2.2.I. Indicators of Economic Development Measurement:

To assess the levels of achievement and development made by countries, especially developing ones, specific indicators have evolved over time, including: (Medhat Quraichi,2007,pp253-254)

- **Gross Domestic Product (GDP):** Initially considered as development meaning a forced increase in GDP over a long period. This measure excludes price changes and is criticized for not considering population growth and income distribution among population categories.
- **GDP per Capita:** Development became associated with a sustained increase in an individual's output over a long period. Here, it is determined that the growth of GDP should exceed the population growth rate for an increase in per capita GDP to occur. However, poverty could still increase despite GDP growth if the majority of income goes to a limited wealthy class.
- **Basic Needs:** Following criticisms to the previous measure, the concept of satisfying basic needs was adopted in the 1976 World Employment Conference. This concept emphasizes the necessity of providing food, water, clothing, housing, and health services. Therefore, the measure of development becomes the degree of satisfaction of basic needs for the population and achieving a higher level of well-being.

II. Relationship between Bank Loans and Economic Development:

Given that the demand for banking system services is a derivative demand resulting from the need for economic development, it can be said that the broader the boundaries of development, the greater the need for a more advanced and service-oriented banking system. This section aims to understand how economic development is achieved through banking loans.

II.1 Historical Role of the Banking System in Economic Development:

Many economic studies have addressed the role of the banking system in economic development. Some emphasize its importance and necessity for economic development, while others diminish its significance and view the banking system pessimistically regarding developmental events within the economy.

There are also opinions suggesting that development can occur independently of the contributions of the banking system. One of the most important studies attributing a leading role to the banking system in economic development is **Schumpeter**'s Economic Evolution Theory in 1911. He highlighted the importance of the banking system in the process of evolution and economic growth, contributing to the formation of capital by creating credit.

Moreover, economists **Adelman and Morris** conducted a quantitative study in whichThey developed a model based on variables determining the expected economic development of a country. Their study covered 74 developing countries during the period 1950-1963. The estimation of the relative impact of the growth of 39 economic variables showed that the level of advancement of the banking system and other financial institutions is among the best indicators of a country's economic growth possibilities. (Hamza Al-zoubaidi,2011,pp171-172)

II.1.1The role of commercial banks in the economic development:

The role of commercial banks in the economic development process has been crucial, and they contribute in various ways: (khaled Abd Elhadi,2023)

- **Capital Formation:**

Commercial banks play a vital role in capital formation by accepting deposits from individuals and businesses. These deposits are then made available to businesses for productive purposes within the country. Thus, commercial banks not only act as custodians of the nation's wealth but also provide the necessary financial resources for economic development.

- **Investment in New Projects:**

Banks often provide short and medium-term loans to entrepreneurs for investing in new projects. This helps in mitigating the reluctance of business owners to invest in high-risk ventures. Offering timely loans leads to an increase in economic productivity.

- **Promotion of Trade and Industry:**

The growth of commercial banking has facilitated expansive trade and industry through the use of banking instruments such as bank transfers, checks, promissory notes, credit cards, and letters of credit. This has brought about a revolution in national and international trade.

- **Agricultural Development:**

Commercial banks, especially in developing countries, now provide loans for agricultural development and small-scale industries in rural areas. The availability of credit to the agricultural sector has significantly increased agricultural productivity and income for farmers.

- **Balanced Regional Development:**

Commercial banks play a crucial role in achieving balanced development in different regions of a country. They assist in transferring surplus capital from economically advanced regions to less developed regions. This enables the latter to acquire sufficient capital for their business needs, leading to increased investment, trade, and production in the economy.

II. 2 Impact of Bank Loans on Economic Variables:

Bank loans have wide-ranging effects on economic activity, influencing key variables such as consumption, savings, and investment.

- **Impact on Consumption:**

Consumption rates are influenced by prevailing price levels. Higher prices reduce purchasing power, leading to decreased consumption, while lower prices increase purchasing power, resulting in higher consumption. Additionally, interest rates play a role as they affect the opportunity cost of consumption. Increased interest rates lead to more attractive saving opportunities, reducing

consumption and potentially increasing savings. Conversely, lower interest rates discourage saving and may lead to increased consumption. Banks can also influence consumption through control over consumer loans. (Hammed Abbas,2023)

- **Impact on Savings:**

Savings are a critical aspect of economic development, providing essential capital for investment. Low savings rates in developing countries contribute to lower economic growth, often necessitating reliance on external financing. Interest rates significantly affect savings, with higher interest rates making saving more attractive and stimulating economic agents to save more. Conversely, lower interest rates can discourage saving, prompting a shift towards consumption. Banks, by controlling interest rates, can influence the level of savings. (Ahmed Farid Mustafa,2000,p101)

- **Impact on Investment:**

Investment is a key factor in economic fluctuations, and changes in investment patterns contribute to international economic volatility.

The investment process, like other operations, is influenced by various factors. Investment decision-making depends on specific foundations and essential elements that must be studied to reach a sound investment decision. We will focus on one of the key determinants that is related to banks, namely the costs of investment. Assuming that an entrepreneur or investor, in order to initiate the investment process, resorts to borrowing the required amounts from the banking sector. Consequently, the cost of investments in this case is the interest rate that the investor will pay to the bank for the loans granted to them over different time periods. Thus, financial institutions, especially banks, can influence investment by adjusting interest rates. For instance, if a government aims to stimulate investment, it may reduce interest rates through the central bank, providing sufficient liquidity. This, in turn, enables commercial banks to offer loans at lower interest rates, encouraging entrepreneurs to invest.

- **The Importance of Bank Loans for Economic Development Financing:**

Loans are considered one of the most crucial sources for satisfying the financial needs of various economic sectors. However, they are also sensitive tools that can lead to significant economic damages if not used properly. In the case of a contraction in loans, it can lead to economic stagnation, and excessive borrowing can increase inflationary pressures. Therefore, maintaining an appropriate level of bank credit that aligns with the actual needs of economic activity is essential. Many economists emphasize the impact of economic instability and fluctuations in the banking system's policies on providing or restricting loans. This is crucial, especially when there is an exaggeration in advancing loans during periods of recovery or hesitation in granting them during contraction periods, contrary to what should be done. Hence, the level of banking credit should be compatible with the actual needs of economic activity and proportionate to economic development plans.(Hammed Abbas,2023)

In summary, loans play a direct role in increasing savings and limiting consumption. Banks actively encourage individuals to save to provide resources for loans, which, in turn, restrict consumption.

Understanding the theories of financial development and economic growth is essential to grasp the intricate relationship between these factors. Various theories, such as the supply-leading theory, demand-following theory, exchange relationship theory, and neutral theory, provide different perspectives on how financial development and economic growth are interrelated.(Hamza Al-zoubaidi ,2011,pp166-167)

II. 3 Causal Theories of Financial Development and Economic Growth:

II. 3.1 Supply-Leading Theory:

This hypothesis revolves around the idea that economic growth is linked to financial development. Notably advocated by Schumpeter, a key proponent of this theory, it emphasizes that financial intermediation plays a role in the economic development process. Through its positive impact on raising the capital productivity, optimal allocation of financial resources is facilitated.

The banking sector, in particular, aids economic development by increasing the money supply and providing credit, leading to increased investment and capital formation. In essence, financial development enhances economic growth.

II. 3.2 Demand-Following Theory:

This theory posits that economic growth causes financial development. In this scenario, financial development becomes an outcome of overall economic activity. Continuous expansion necessitates more financial services, and as average income per capita rises, faster growth in financial assets follows. The relationship here is that economic growth triggers financial development.

II. 3.3 Interactive Relationship:

This perspective suggests that the causal relationship differs between developing and developed countries. In the early stages of economic development in developing countries, the causal relationship is from the financial sector to economic growth. In contrast, in advanced stages of economic development, the relationship shifts from economic growth to financial development.

II. 3.4Neutral Theory:

This approach asserts that the financial sector is entirely independent of economic growth. According to this view, neither one affects the other.

II. 3.5 Indicators for Measuring Financial Development:

- There are numerous financial and banking indicators used by economists to measure financial development. Some key indicators include:

Table (1): Banking Development Indicators

Banking Development Indicators	**Significance**
Money Supply to GDP Ratio (M2/GDP)	Higher ratios indicate a significant role for financial intermediation.

Total Quasi-Money to GDP Ratio (QM/GDP)	Measures the banking system's ability to attract long and medium-term savings, reflecting banks' capacity to provide financing for investments.
Private Sector Credit to GDP Ratio (PL/GDP)	Measures the contribution of local banks in providing loans and facilities to the private sector, indicating the significant role of banks in the growth process.

- There are also indicators specific to the development of financial markets, such as market capitalization, the number of listed companies, trading volume, and market concentration.
- The focus in this study has been on banking indicators, aligning with the research goal of investigating the relationship between banking finance and economic growth.

Axis III: Analysis of the Relationship between Banking Finance and Economic Growth in Algeria During the Period 2016-2022:

In this axis, we aim to analyze the data for the period from 2016 to 2022, allowing us to infer the causality of the relationship between economic growth and financial development. This involves exploring the nature of bank loans directed towards the economy during the study period and analyzing banking indicators to determine the role of banks in the economic development process.

III .1 Nature of Loans Directed to the Economy in Algeria (2016-2022):

III .1.1 By Sector:

Table (2): Loans Directed to the Economy by Sector (2016-2022)

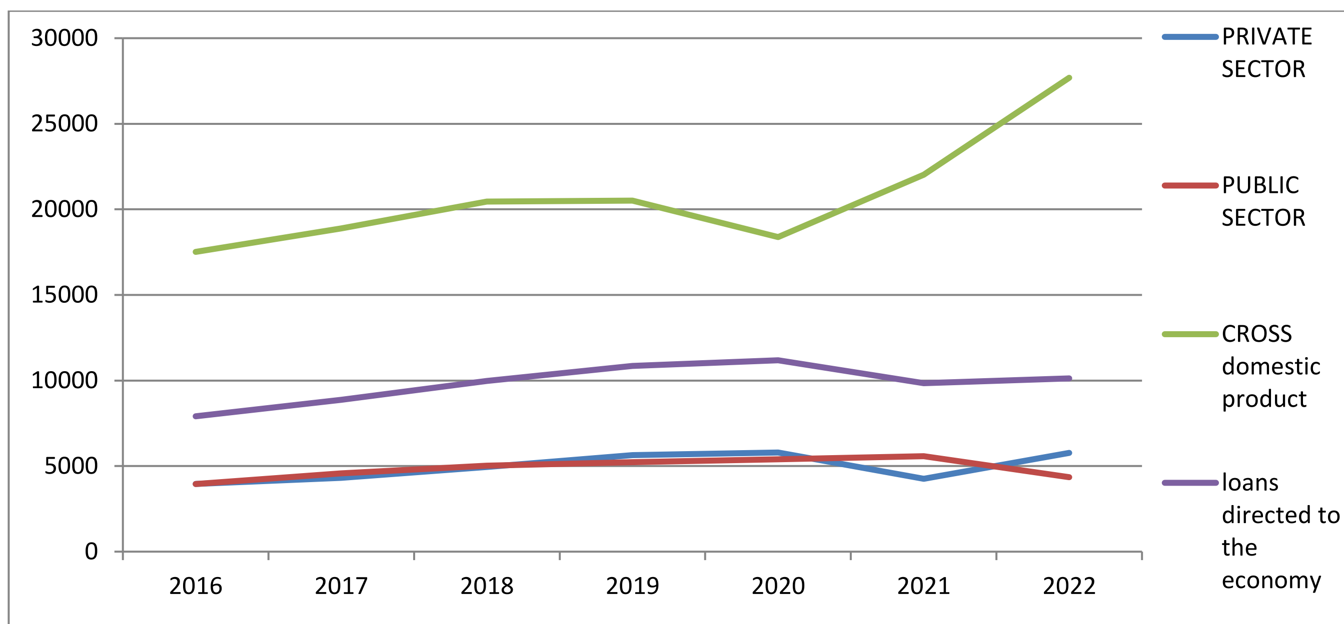
Year	Private Sector (Billion DZD)	Private Sector (%)	Public Sector (Billion DZD)	Public Sector (%)	Local Adminis tration (Billion DZD)	Total (Billion DZD)	Gross Domestic Product (Billion DZD)
2016	3957.1	50	3952.2	50	0.6	7909.9	17514.6
2017	4311.3	51.4	4568.3	48.6	0.5	8880.0	18876.2
2018	4943.6	50.4	5032.2	49.6	0.6	9976.3	20452.3
2019	5636.0	48.1	5221.3	51.9	0.6	10857.8	20501.1
2020	5792.7	48.2	5389.0	51.8	0.6	11182.3	18383.8
2021	4262.0	57.7	5576.6	42.3	0.7	9839.2	22021.5
2022	5764.5	57.0	4350.1	43.0	0.6	10115.2	27688.8

Source: Compiled by researchers based on data from the Bank of Algeria summary:

- Annual Report: Economic and Monetary Development for the year 2016, December 2017.
- Annual Report: Economic and Monetary Development for the year 2021, December 2022.
- Bank of Algeria, Statistical Bulletin No. 59 for the year 2022.
- Annual Report: Economic and Monetary Development for the year 2021, December 2023.

Note: The figures are in Billion Algerian Dinars (DZD)

Figure (1): Development of Loans Directed Towards the Economy Compared to the Gross Domestic Product (GDP) for the Period (2016-2022)



Prepared by the researchers using Excel program and data from Table (2).

Through the previous graphical representation, we observe that during the study period, loans directed towards the economy witnessed continuous development. The highest proportion was reached in 2020, with a value of 11182.3 billion Algerian Dinars, subsequently declining to 9839.2 billion Algerian Dinars in 2021. This decline was attributed to a decrease in public sector financing by 26.4%. As a result, the rate of loans directed towards the economy decreased by 3% compared to 2019 when it recorded a growth rate of 8.8%. This can be attributed to the negative effects of the COVID-19 pandemic on the economy.

Between 2021 and 2022, the proportion of loans increased, reaching a total of 10115.2 billion Algerian Dinars. This increase was due to the growth in the volume of loans directed towards the private sector, amounting to 5752.3 billion Dinars, compared to 5576.6 billion Dinars in 2021. Meanwhile, loans directed towards local administration remained relatively stable at 0.7 billion Dinars, with a slight increase in loans directed towards the public sector.

The figure and the preceding table also indicate that loans directed towards the public sector experienced fluctuations during the study period, while loans towards the private sector showed continuous development from the lowest value of 3957.1 billion Dinars in 2016 to the highest value of 5752.3 billion Dinars in 2022.

2. Distribution of Loans According to Maturity Period:

Table (3): Loans According to Maturity Period During the Period (2016-2022)
Unit: Billion Algerian Dinars

Year	Short-Term	Percentage	Medium-Term	Percentage	Long-Term	Percentage	Total
2016	1914.2	24.2	1810.9	22.9	4184.8	52.9	7909.9
2017	2298.0	25.9	1844.4	20.8	4737.6	53.4	8880.0
2018	2687.1	26.9	1683.3	16.9	5605.9	56.2	9976.3
2019	3011.1	27.7	1665.9	15.4	6180.9	56.9	10857.8
2020	3203.7	28.6	1654.5	14.8	6324.1	56.6	11182.3
2021	3515.0	36.4	1505.1	15.1	4819.2	48.5	9839.2
2022	3903.1	38.6	1470.5	14.5	4741.6	46.9	10115.2

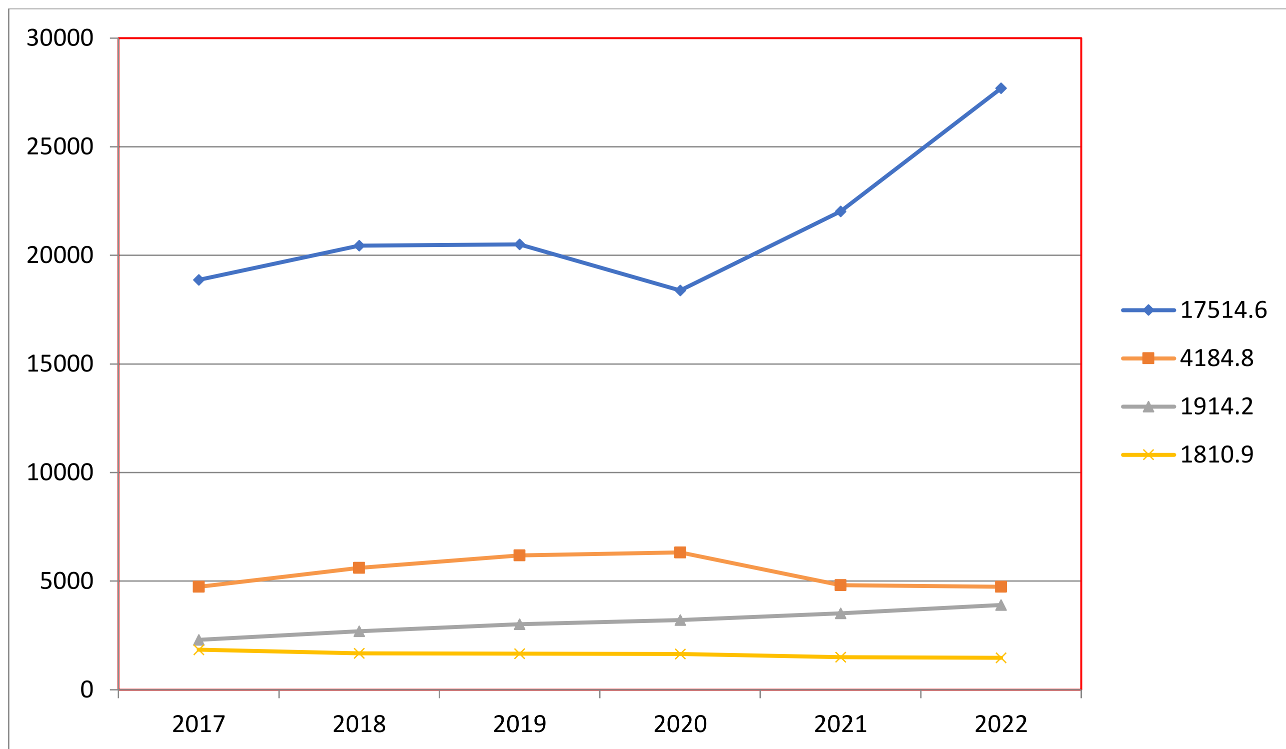
Source: Compiled by the researchers based on data from the Central Bank of Algeria

- Annual Report on Economic and Monetary Development for the year 2021, December 2022;
-Central Bank of Algeria, Statistical Bulletin No. 59 for the year 2022;
-Annual Report on Economic and Monetary Development for the year 2021, December 2023.

The table illustrates the continuous development of short-term loans during the study period. They recorded their lowest value in 2016 at 1914.2 billion Algerian Dinars and their highest value in 2022 at 3644.3 billion Algerian Dinars.

As for medium-term loans, they experienced a continuous decline throughout the study period. The highest rate of decline was recorded in 2021, with a percentage decrease of 9%. Medium-term loans constituted a very small percentage of the total loans directed towards the economy, reaching 15.1% of the total in 2021, a significantly lower percentage compared to the beginning of the period in 2016 when it was 22.9%.

Long-term loans, on the other hand, occupied the largest proportion of total loans towards the economy during the study period. On average, they accounted for 54.15%. There was an initial decrease in their value in 2020, reaching 56.6%, followed by 48.5% in 2021, and further decreased to 46.9% in 2022. Interestingly, there was an initial fluctuation in the economic growth curve in 2020, where the economic growth rate dropped from 1.1% in 2019 to -5.1% in 2020. The Gross Domestic Product (GDP) totaled 18,388.8 billion Dinars in 2020, down from 20,501.1 billion Dinars in 2019. The economy rebounded in 2021, reaching a value of 22,021.5 billion Dinars, an increase of 3.4%, and experienced a slight decline again in 2022, with a growth rate of 3.2%.



Prepared by the researchers using Excel program and data from Table (3)

III. 2 Ratio of Total Bank Loans to Gross Domestic Product (GDP) and Loans Directed to the Private Sector as a Percentage of GDP:

Through the indicators CT/GDP and PL/GDP, which represent, respectively, the total bank loans as a percentage of total GDP and the ratio of loans directed to the private sector (PL) to total GDP. The following table illustrates the data for these indicators during the period 2016-2022 in Algeria.

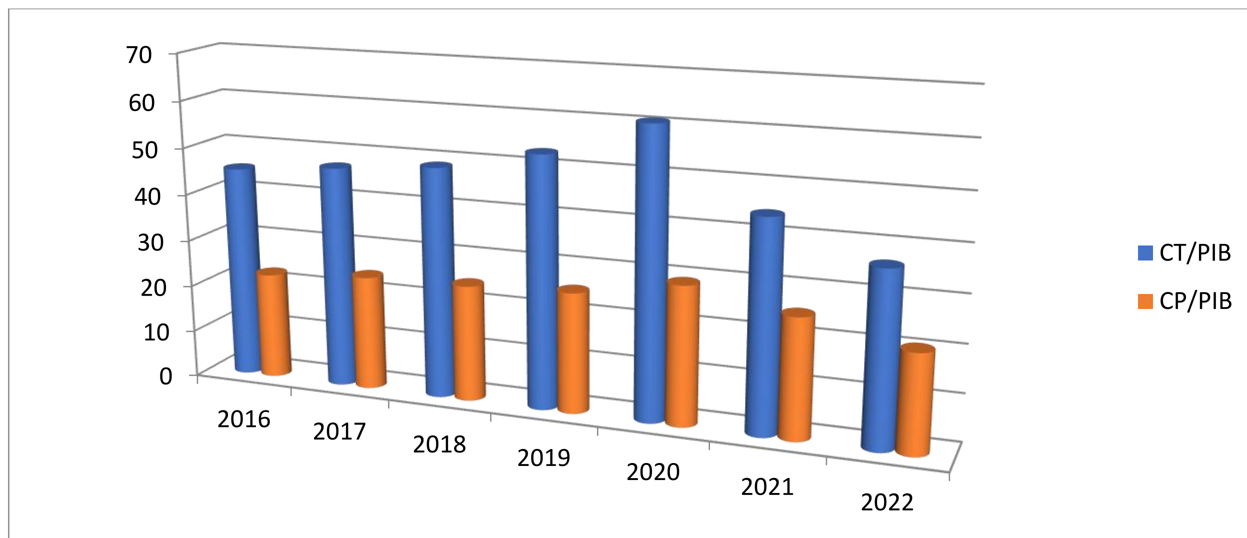
Table No: (4)

Year	2016	2017	2018	2019	2020	2021	2022
CT/ GDP %	45.16	47	48.8	53.2	60.8	44.4	36.5
PL/ GDP %	22.59	24.2	24.6	25.46	29.31	25.32	20.77

Source: Compiled by researchers based on the summarized data from the Bank of Algeria:

- Annual Report: Economic and Monetary Development for the Year 2021, December 2022.
- Bank of Algeria, Statistical Bulletin No. 59 for the Year 2022.
- Annual Report: Economic and Monetary Development for the Year 2021, December 2023.

Figure No: (3) CT/ GDP and PL/ GDP Indicators



Source: Based on Excel software and the data from Table number(4)

The table and figure above illustrate that the period from 2016 to 2022 witnessed a significant increase in the value of the Total Bank Loans to GDP ratio, averaging 47.84%. It reached its peak in 2020 at 60.8%. This period coincided with a decline in oil prices and the amendment of the monetary and credit law by issuing Law 17/10 related to unconventional financing. The Central Bank reduced interest rates and the discount rate to enhance the financial capacity of commercial banks. Additionally, it deferred the repayment of due loan installments and rescheduled loans for customers affected by the COVID-19 crisis, continuing to provide necessary financing. This contributed to the increase in the volume of loans distributed by the banking system, consequently raising its contribution to the Gross Domestic Product (GDP) as the economic growth rate sharply declined in the same year.

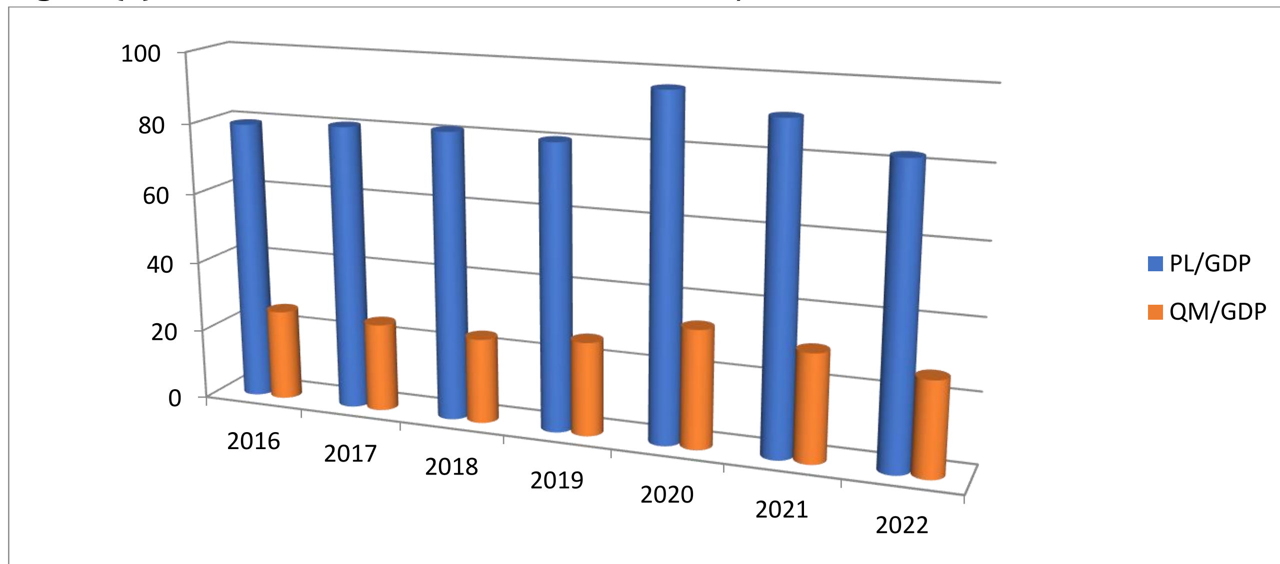
As for the indicator of **the ratio of loans provided to the private sector as a percentage of Gross Domestic** Product (PL/ GDP), it reflects the importance of the development of the banking system in the field of financial intermediation. This indicator is a more accurate measure expressing the role of banks in financing the private sector's activities, directly linked to investment and economic growth. As this indicator increases, it signifies an increase in financial services provided to the private sector, thereby contributing more to the Gross Domestic Product. Throughout the study period, this indicator represented a modest percentage of GDP, averaging 24.6%. The highest ratio was observed in 2020, reaching 29.31%. Despite the development and increase in the ratio of loans provided to the private sector, this indicates a weakness in the level of financial depth. Consequently, the banking system does not contribute as much as it should to financing economic activities.

Table N (5):

	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
M2/ GDP	79.37	80.61	81.3	80.53	96.1	90.8	82.8

QM/ GDP	25.7	25	24.1	26.5	33.4	30.4	26.7

Figure (4): Financial Intermediation Indicator M2/GDP



Source: Compiled by the researchers using Excel software and data from Table(5)

Through the analysis of the period from 2016 to 2022, it is evident that loans directed towards the economy emerged as crucial sources of monetary expansion. Their contribution to the money supply exceeded 50%, reaching its lowest point in 2016 at 78.9% and its highest in 2022 at 96.1%. This surge can be attributed to the implementation of growth consolidation programs (2015-2019), the adoption of unconventional financing policies, resulting in a substantial injection of money into the economy. Additionally, initiatives like the Economic Recovery Plan (2020-2024) and the expansionary monetary policy adopted by the Central Bank of Algeria to counter the impact of the COVID-19 crisis contributed to the rise in the volume of loans distributed by the banking system.

Subsequently, the monetary supply indicator experienced a decline in 2021 and 2022, reaching percentages of 90.8% and 82.8%, respectively. Despite these fluctuations, the loans directed towards the economy maintained their position as the primary foundation for monetary creation.

It is noteworthy that, during the study period, Algeria's M2/GDP ratio, though high, was still lower than that of other countries like Morocco (136.3%) and Jordan (114.5%). This suggests that financial intermediation services in Morocco and Jordan may outperform those in Algeria.

Despite the high ratios, approaching those of developed countries with advanced financial systems, the M2/GDP indicator in Algeria during 2016-2022 does not reflect the development of financial intermediation as much as it reflects increased government expenditures and the growth of the parallel market. A significant portion of cash transactions occurs outside the banking system, especially in developing countries like Algeria, where a considerable amount of dealings are conducted in cash instead of utilizing banking services.

To provide a clearer picture in developing countries, we turn to the quasi-money-to-GDP ratio (QM/GDP). This indicator reflects the ability of banks to attract medium and long-term savings, giving them greater capacity to finance productive investments in the economy. During the study period, the QM/GDP ratio experienced some fluctuations, with a peak of 33.4% in 2020. Although there has been improvement, it remains insufficient compared to the volume of cash circulating outside the banking system, which increased from 4497.2 billion Algerian dinars in 2016 to 7392.8 billion Algerian dinars in 2022.

It is essential to interpret the reliance on banks by considering factors such as low banking confidence, families' preference for tangible savings like real estate, increased rates of cash leakage due to a weak banking culture, insufficient financial inclusion rates, and religious factors prohibiting usury.

Conclusion:

In the pursuit of understanding the nature of the relationship between financial performance and economic growth, considering the principle of causality, which gives rise to various hypotheses, including the leadership-follow hypothesis, meaning whether financial performance influences economic growth, an analysis of the data spanning from 2016 to 2022 allowed us to formulate the following results and recommendations:

- Analyzing the nature of bank loans based on their maturity period,it was observed that short-term bank loans were not significantly affected by the fluctuations in the economic growth rate during the study period. These loans exhibited an upward trend throughout the study period, regardless of whether the economic growth rate decreased or increased. This contradicts the hypothesis that economic growth influences short-term loans;
- As for long-term loans, despite their significant proportion of total loans, they decreased since 2020, coinciding with the decline in the economic growth rate. Despite the fluctuations in the growth rate after 2020, the percentage of long-term loans continued to decline. This suggests that the impact of economic growth on long-term loans may not be significant, and it is possible that long-term loans influence economic growth, especially in the long run. Additionally, the decrease in the percentage of long-term bank loans may be attributed to the issuance of short-term loans that primarily encourage start-ups, playing a significant role in driving economic development;
- The results regarding the ratio of bank loans directed towards the private sector as a percentage of the Gross Domestic Product (GDP) indicate a relatively low percentage, averaging 24.6%. The highest ratio was observed in 2020 at 29.31%. Despite the development and increase in the ratio of loans provided to the private sector, this indicates a weakness in the level of financial depth, suggesting that the banking system does not contribute adequately to financing economic activities;
- The analysis of the evolution of the indicator of bank loans directed towards the economy as a percentage of the GDP shows that these loans emerged as a crucial source of monetary expansion. The financial intermediation or money supply indicator (M2/GDP) averaged %. The significant increase in financial intermediation ratios is attributed to developmental programs

that characterized the study period, such as the Growth Consolidation Program (2015-2019), the Economic Recovery Program (2020-2021), and the expansionary monetary policy adopted during the global health crisis (COVID-19);

- Analyzing the quasi-money-to-GDP ratio (QM/GDP),it became clear that banks' ability to attract medium and long-term savings, facilitating the financing of productive investments in the economy, is limited. The maximum value for this indicator was 33.4%, which remains insufficient compared to the volume of cash circulating outside the banking system. Factors such as religious considerations and a preference for tangible savings, like real estate due to a lack of confidence in banking transactions, contribute to this.

In conclusion, several recommendations can be made:

- Adopting a strategy for economic diversification outside the hydrocarbons sector through the establishment of real economic reform workshops and a fundamental review of the economic model and relationships with various economic actors, including the public sector.
- Enhancing competition in the banking sector by facilitating the incorporation of private banks under supported conditions and limiting government intervention in the decisions of public banks.
- Combating the phenomenon of the parallel economy, which holds a considerable amount of cash outside the banking system.

References:

- Salah El-Din Hassan El-Sisi, "Financial Management and Banking Services for Economic Development Goals," Dar Al-Wissam for Printing and Publishing, Lebanon, First Edition, 1998.
- Abdel Motaleb Abdel Hamid, "Comprehensive Banks: Their Operations and Management," Dar Al-Jami'a for Printing and Publishing, Alexandria, First Edition, 2000
- El-Taher Latarsh, "Banking Techniques," Diwan Al-Matbou'at Al-Jami'a, Sixth Edition, Algeria, 2007
- Al-Zein Mansouri, "Encouraging Investment and Its Impact on Economic Development," Dar Al-Raya for Publishing and Distribution, First Edition, Jordan, 2012.
- Mohamed Abdel Aziz Ajmaia and Ghayman Atiya Nasef, "Economic Development - Theoretical and Applied Study," Alexandria University, Alexandria, 2002
- Abdel Hamid Abdel Motaleb, "Economic Theory: Partial and General Analysis," Dar Al-Jami'a Alexandria, 2006
- Mohammed Saleh Triki Al-Quraishi, "Science of Development Economics," Athaar for Publishing and Distribution, First Edition, Oman, 2010
- Medhat Qureshi, "Economic Development (Theories, Policies, and Topics)," Dar Wael for Publishing, First Edition, Oman, 2007
- Hamza Mahmoud Al-Zubaidi, "Bank Management: Deposit Mobilization Strategy and Credit Provision," Al-Warraq Publishing and Distribution, Jordan, 2011.

- Khaled Abdel Hadi, "Banks and Their Role in Economic Development," Article published on the website http://heikal23.blogspot.com/2011/05/blog-post-html, Search Date: 30/04/2023, Search Time: 21:00.
- Hamed Abbas Mohammed Al-Marzouk, "The Impact of Economic Development on Loans," Lecture published on the website http://fr.scribd.com/doc/27103412, Search Date: 01/06/2023, Search Time: 13:00.
- Ahmed Fareed Mustafa, "Macroeconomic Analysis," Shabab Al-Jami'a Foundation, Egypt, 2000
- Bank of Algeria, "Annual Report: Economic and Monetary Development for the Year 2016," December 2017.
- Bank of Algeria, "Annual Report: Economic and Monetary Development for the Year 2021," December 2022.
- Bank of Algeria, "Statistical Bulletin No. 59 for the Year 2022."
- Bank of Algeria, "Annual Report: Economic and Monetary Development for the Year 2021," December 2023