

Banking underdevelopment in Algeria: evolution, indicators and macroeconomic implications

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Abstract:

Economic studies related to the relationship between financial intermediation and economic growths are very complex. To this day, there are considerable debates about the actual effect of finance on product growth.

The objective of this study are analyze the evolution of banking underdevelopment over time and assess the macroeconomic implications of banking exclusion on the Algerian economy and identify the key indicators of banking exclusion in Algeria.

To have a diversified and active financial system in Algeria is a prerequisite for any rapid and sustainable growth; it is necessary to establish an open and dynamic capital market and modernize banks and establish an efficient and effective financial infrastructure. Innovation and diversification of financial instruments.

Keywords: Financial Intermediation, Economic Growth, Supply Approach, Demand Approach, Endogenous Growth Theory.

JEL Classification Codes: C51, E44.

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Introduction:

The extensive development phase that our country experienced for nearly two decades was marked by a strong desire to promote a policy of massive investments and rapid industrialization at all costs. However, the practical implementation of this voluntarist strategy clearly posed to the state the necessity of a perfect subservience of the monetary and financial sphere. The main objective was to act on the monetary and financial system to obtain the necessary support for the investment and industrialization process and to channel resources toward activities deemed essential to the ongoing effort. In this regard, the adoption of centralized and mandatory planning as a means of organizing and managing the economy resulted from the establishment of a central resource allocation system.

The financing policy, stemming from the aforementioned economic regulation and management system, was characterized by the supremacy of the budgetary sphere over the monetary one. Indeed, the financial intermediation played by the Treasury in a budgetary model of the financial system was marked by the growing role of the Treasury in allocating loan able funds to uses determined by public authorities. In contrast, the banking system had a passive role in financial intermediation; the institutional evolution of the banking system resulted in stripping it of its primary attribute: financial intermediation. Thus, the banking system, as a segment of a global circuit of centralized resource allocation to public enterprises, only fulfilled an accounting role in the ultimate allocation process of pre-allocated funds.

The financing system that prevailed until 1986 was plagued by macro-financial imbalances. On one hand, it experienced phenomena characteristic of credit automaticity and monetary expansion—the monetary expansion being the main determinant of the evolution of the financing policy derived from the economic regulation and management system.

The obligation to address the aforementioned macro-financial imbalances compelled public authorities to initiate successive economic reforms in 1986, 1988, and 1990. These reforms aimed primarily to promote market mechanisms as regulatory instruments that would gradually replace non-decentralized planning. This era was marked by the emergence of a necessity: the disengagement of the Treasury from the credit system and the need to promote financial and banking intermediation.

To address this type of necessity, the monetary reform model established the conditions for the functional efficiency of financial intermediation, notably by reactivating banking functions and promoting long-term financial savings. This performance constitutes a necessary step in strengthening the financial structure of the economy, capable of contributing to curbing the determining character of distorted monetary expansion.

The purpose of this document is to empirically explore the effect of financial inclusion on banking stability in Algeria, with the main question being:

What is the impact of the underdevelopment of the Algerian banking system on economic growth within the framework of a liberalized financial system?

2. Definition of Financial Intermediation:

Intermediation aims to align the portfolio choices of two types of non-financial agents: borrowers and lenders, through an entity called a financial intermediary. This intermediary functions to collect funds from agents with surplus resources and transforms them for agents with financing deficits. (la finance pour tous, 2023)

-In exchange for the money received in the form of loans or advances, agents with financing deficits provide debt acknowledgments or primary debt securities (such as securities, mortgages, guarantees, etc.).

-Main lenders (depositors, savers) receive from financial intermediaries—whether monetary or non-monetary—remunerations (interest rates) or secondary debt securities (savings books, passbooks, cash bonds, SICAV shares).

Financial intermediation is an activity distinct from that performed by a financial intermediary, which operates in direct finance. Financial intermediation involves purchasing securities issued by companies and simultaneously issuing securities that will be placed in the public, either directly on the stock exchange or indirectly through deposit accounts or savings books. Since the volumes bought and sold are of a different nature, they are grouped based on their maturity, risk level. (Bourse des credit)

The profit of the financial intermediary is constituted by the difference between these two types of securities.

3. Theory on the Link between Financial Intermediary Activity and Growth:

In 1912, Schumpeter emphasized the crucial role of bankers, who, through their targeting and financing of entrepreneurs, encourage technological innovation, capital accumulation, and thus stimulate economic growth (Schumpeter, 1912).

Consequently, financial development stimulates growth through an increase in the investment rate, the allocation of capital to the most productive projects, and the intensification of trade (Levine, 1997). To achieve this, financial intermediaries perform five main functions (Levine, 2004).

The relationship between financial development and economic development has been recognized in the literature for about thirty years (Gold, 1970). In endogenous growth models that allow for the formulation of interactions between financial factors and growth, we find the model by Pagano (Pagano & Volpin, 2001). Other studies on this theme have shown that competitive financial intermediation increases long-term growth rates (Greenwood & Jovanovic, 1990).

The existence of a developed banking system first allows for financing a higher amount of investment by mobilizing more savings. The banking activity of diversification and maturity transformation meets the demands of both depositing agents and agents in need of financing. The intermediary transforms the primary assets issued by companies into indirect financial assets desired by final investors (Shaw & Gurley, 1955).

Two main trends can be cited in this regard. The first, represented by Schumpeter and King and Levine (Levine, 1993), advocates a supply-side approach and sees financial intermediaries playing a key role in economic growth. The difference in growth levels between countries can be explained by the quality of services offered by financial institutions and the prevailing regulations. The second stream, on the contrary, takes the demand side and argues for a reverse causal link. It is likely that the level of economic growth is the main catalyst for financial deepening. Financial intermediaries merely respond passively to the demand for services directed at them (Patrick, 1966).

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3. Empirical Validation of the Impact of Banking Underdevelopment on Economic Growth in the Context of a Liberalized Financial System (2003-2020):

3.1. Presentation of Real and Banking Variables:

The model we seek to estimate for the study of the impact of banking development on long-term economic growth is based on the equation:

$$TGDP=a+\beta F(i)+\epsilon t$$

where:

- **TGDP:** Indicators of real development (long-term growth rate of GDP per capita). The GDP rate (TGDP), which measures economic growth, is the dependent variable.
- **F(i):** Independent variables measuring banking development (the level of financial intermediation development). The explained variable is the GDP rate, which measures economic growth and indicators of banking development.

Indicators of the Real Sphere:

The independent (explanatory) variables measuring the degree of banking development are divided into four distinct groups:

- **First Group:** M2/PIB, QM/PIB, QM/M2
- **Second Group:** CB/PIB, CP/PIB, CBC/CET

3.2. Input Variables:

The input variables are presented in the four tables below:

Table 1. Indicators of Banking Development (2003-2020) %

year	GDP	M2/GDP	QM/GDP	QM/M2	CBC/GDP	PS/GDP	CBC/CET
2003	1.10	62	13	21	10	2	56
2004	-1.20	48	10	22	12	3	50
2005	1.80	49	14	28	14	3	51
2006	-2.10	42	15	29	16	4	53
2007	-0.90	49	17	34	16	4	58
2008	3.80	40	14	35	18	5	61
2009	4.10	36	13	36	15	4	37
2010	1.10	39	15	38	18	6	14
2011	5.10	56	27	48	18	7	19
2012	3.20	55	27	49	29	7	20
2013	2.40	49	24	48	34	8	22
2014	2.10	58	29	50	43	9	25
2015	4.70	55	33	51	43	12	24
2016	6.90	63	33	51	45	11	18
2017	5.20	61	27	42	50	11	20
2018	5.10	55	23	42	55	12	25
2019	2	58	19	34	55	12	25
2020	3	64	19	29	40	12	20

Source: Calculations made by us based on reports from the Bank of Algeria (Bank of Algeria, 2000-2020).

3.3. Analysis of the Results of Econometric Validation:

3.3.1. Relationship between Money Supply Relative to GDP (M2/GDP) and Economic Growth Rate (TGDP):

$$\text{TGDP} = 0.683\text{M2/GDP} - 17.074$$

- **Std Errors:** (0.81) (26.104)
- **T-Statistic:** (-2.286) (-0.654)
- **F-Statistic:** 3.164, R^2 : 0.741

Based on the model above, we accept hypothesis H1, which states that M2/GDP influences variations in the economic growth rate, supported by the following results:

- T-statistic specific to M2/GDP: $t=2.286 < 1.92$;
- F-statistic = 3.164, weak Fisher statistic;
- $R^2 = 0.741$, strong coefficient of determination.

3.3.2. Relationship between Quasi-Money Relative to GDP (QM/GDP) and Economic Growth Rate (TGDP):

$$\text{TGDP} = 0.148*\text{QM/GDP} - 16.742$$

- **Std Errors:** (0.177) (27.109)
- **T-Statistic:** (-2.277) (-0.648)
- **F-Statistic:** 2.462, R^2 : 0.743

Based on the model above, we accept hypothesis H1, which states that QM/GDP explains variations in the economic growth rate, supported by the following results:

- T-statistic specific to QM/ GDP: $t=2.277 < 1.92$;
- F-statistic = 2.462, weak Fisher statistic;
- $R^2 = 0.743$, strong coefficient of determination.

3.3.3. Relationship between Quasi-Money Relative to Money Supply (QM/M2) and Economic Growth Rate (TGDP):

$$\text{TGDP} = -2.54*\text{QM/M2} + 9.566$$

- **Std Errors:** (0.809) (44.566)
- **T-Statistic:** (-0.752) (0.215)
- **F-Statistic:** 2.115, R^2 : 0.757

Based on the model above, we accept hypothesis H0, which states that QM/M2 has no impact on variations in the economic growth rate, supported by the following results:

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- T-statistic specific to QM/M2: $t=0.752 < 1.92$;
- F-statistic = 2.115, weak Fisher statistic;
- $R^2 = 0.757$, strong coefficient of determination.

3.3.4. Relationship between Commercial Bank Credits Relative to GDP (CBC/ GDP) and Economic Growth Rate (T GDP):

$$TGDP = - 0.017 * CBC/GDP + 2.823$$

- Std Errors: (2.406) (0.08)
- T-Statistic: (1.173) (-0.068)
- F-Statistic: 0.005, R^2 : 0.017

Based on the model above, we accept hypothesis H_0 , which states that CBC/GDP does not explain variations in the economic growth rate, supported by the following results:

- T-statistic specific to CBC/GDP: $t=1.173 < 1.92$;
- F-statistic = 0.005, weak Fisher statistic;
- $R^2 = 0.017$, weak coefficient of determination.

3.3.5. Relationship Between Banks Credits to the Private Sector Relative to GDP (PS/GDP) and Economic Growth Rate (TGDP):

$$TGDP = - 1.235 * PS/GDP + 1.113$$

- Std Errors: (3.937) (0.922)
- T-Statistic: (0.2) (1.207)
- F-Statistic: 0.546, R^2 : 0.314

Based on the model above, we accept hypothesis H_0 , which states that PS/GDP has no impact on variations in the economic growth rate, supported by the following results:

- T-statistic specific to PS/GDP: $t=0.2 < 1.92$;
- F-statistic = 0.546, weak Fisher statistic;
- $R^2 = 0.314$, weak coefficient of determination.

3.3.6. Relationship between Bank Credits Relative to (CBC/CT) and Economic Growth Rate (TGDP):

$$TGDP = 0.457 * CBCO/CSPU + 0.024$$

- Std Errors: (3.638) (0.015)
- T-Statistic: (-0.524) (2.015)
- F-Statistic: 1.253, R^2 : 0.728

Based on the model above, we accept hypothesis H_0 , which states that CBC/CT does not explain variations in the economic growth rate, supported by the following results:

- T-statistic specific to CBC/CT: $t=0.524 < 1.92$;
- $R^2 = 0.728$, high coefficient of determination;

- F-statistic = 1.253, weak Fisher statistic.

3.4. Comment on the Results of the Empirical Validation:

The level of development of financial intermediation has had a mixed impact on variations in the growth rate within a framework characterized by a deficient financial structure. This situation is marked by an underdeveloped debt economy, associated with a semi-liberalized financial system.

The monetary and financial reform, primarily conveyed by the L.M.C., aimed to qualitatively transform financial intermediation. This involves a transition from a financial intermediation based on political considerations to a more efficient intermediation focused on the optimal allocation of loanable funds, primarily drawn from resources that are now available.

For a qualitative shift to be tangible, the L.M.C. introduced significant changes in the functioning of the banking system, thereby allowing a reactivation of the microeconomic functions of banks. This translates into an enhancement of the banks' role in the financial intermediation process and an improvement in the conditions of functional efficiency of this intermediation.

Prerequisites for Sustainable Growth:

- Bank Modernization: Establishment of an effective financial infrastructure.
- Financial Innovation: Securitization and diversification of financial instruments.
- Capital Market: Establishment of a dynamic and open capital market.

4. Conclusion:

The monetary and financial reform, primarily conveyed by the L.M.C., was designed with the aim of qualitatively transforming financial intermediation. This involves a shift from a singular financial intermediation based on political supply, which is a corollary of underdeveloped institutional and financial systems, to an efficient financial intermediation that relies on the optimal allocation of loanable funds, primarily sourced from term resources. This transformation is linked to the financial transformation of household savings and a qualitative change in monetary regulation, moving from direct monetary regulation to active monetary regulation.

The goal is to move away from an economy of administered overdraft debt and to build a sound financial structure, namely a credit economy with a unique monetary decision-making body:

-the Bank of Algeria, capable of channeling limited financial resources towards the most profitable activities.

-We do not have the time to contemplate this; we do not need to focus on these relationships. Establishing a framework for bank control and savings protection, as well as emphasizing the principle of internalizing exchange rate constraints, are essential for ensuring healthy financing of the economy.

-To better integrate into the current financial dynamics marked by financial globalization, which is a corollary of the commodification of finance and the interconnection of financial markets, as well as the emergence of specialization in financial intermediation and financial disintermediation, Algeria must establish financial intermediation through the market.

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- This is the supreme stage of institutional financial intermediation and a necessary condition for the allocation of scarce financial resources.

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