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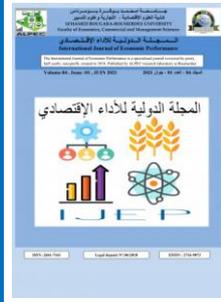


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The importance of Organic Law 18/15 related to the Finance Law in achieving financial sustainability in Algeria

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Abstract:

The research aims to analyze the reality of the current budgetary management system in Algeria, and the content of the reforms pursued within the framework of modernizing the budget system in order to achieve financial sustainability, and we followed the descriptive analytical approach in the theoretical framework in addition to the applied study, we concluded that the financial situation in Algeria is not characterized by financial sustainability in light of the current circumstances and the dependence on oil taxation.

Key words: Budget, Fiscal Sustainability, Law 18/15, Modernizing the Budget.

JEL Classification Codes: E6, H5, H6.

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1- Introduction:

Algeria is considered one of the least diversified countries in its economy, as it depends on oil as a main source in financing and drawing up economic and financial policy, and the budget is one of its most important components, as fiscal revenues cover a large proportion of the total revenues in the budget, especially in the wake of the significant rise in oil prices, and this What led to major problems at the level of fiscal policy through the almost absolute dependence on oil.

The state's general budget is one of the elements of fiscal policy as it expresses the successful interface of economic policy through achieving public expenditures for the established objectives and mobilizing the necessary resources to cover them while ensuring their sustainability, especially if oil revenues are the most important sources of financing, and this constitutes a major challenge to the difficulty of abandoning this linked source. Mainly due to global fluctuations and crises, however, the budget system has developed spontaneously to some extent without referring to the studied methods and theories related to this, which led to criticism directed at it through the adoption of the traditional budget method, which resulted in the depletion of government resources, exacerbation of the budget deficit and resorting to debt Without achieving the expected goals, especially achieving financial sustainability, as the problem is not in increasing spending year after year, and it is not this policy that poses a long-term impasse. Rather, it requires mobilizing means and human and material resources in order to achieve expansion goals in a way that ensures the achievement of development goals and economic plans. established without hampering the state's ability to spend in light of the available revenues.

The study of the general budget occupied an important aspect of recent studies due to its increasing impact on the economic balance, and its in-depth study, which compels us to focus on it as necessary in light of the oil crisis that emerged clearly during the year 2014 and which cast its repercussions on its elements, where public spending knew its limits. With revenues not keeping pace with this increase in light of

limited resources, and with the expansionary spending policy continuing at the same pace, Algeria faces challenges in light of the collapse in oil prices, which hastened the emergence of imbalances at the level of overall balances and the intensification of financial pressures, and the need to develop the method adopted in budget management and modernization of the budget system public in order to enhance financial performance and rationalize public spending to achieve financial sustainability, given that various countries have adopted the logic of budget management with results with interest in modernizing the budget system, and this matter raises the following question:

What is the role of activating the organic law 18/15 in achieving financial sustainability in Algeria?

To answer the problem, we ask the following questions:

- How did the financial fluctuations affect the general budget?
- What are the reasons for adopting the Organic Law 18/15?
- To what extent is Algeria able to achieve financial sustainability in the current circumstances?
- What are the stakes for the embodiment of Organic Law 18/15 in achieving financial sustainability?

To answer the questions raised, the following hypotheses were formulated:

- The successive financial crises led to the accumulation of fiscal deficits by affecting oil revenues;
- The current budget system is considered incapable of keeping pace with developments at the level of the economy and public finance;
- Algeria's financial situation is characterized by weak sustainability under the current circumstances;
- Activating the draft organic law 18/15 related to finance laws to adopt modern frameworks in the management of public finances that would achieve financial sustainability.

The research aims to achieve the following:

- Demonstrating the importance of modernizing the general budget system by abandoning the traditional system adopted in management and moving towards the modern method by activating the Organic Law 18/15 related to finance laws;
- Highlighting the importance of implementing the budget system modernization project, and analyzing the most important obstacles in implementing the project;
- Study and analysis of the conceptual framework of financial sustainability;
- Analyzing the extent of Algeria's ability to sustain its financing sources in light of dependence on oil revenues.

The importance of the research stems from considering the issue of financial sustainability of great importance in public finance, which requires updating and modernizing the general budget system and the need to include modern trends and appropriate strategies with a clear perspective of priorities, and work to reconsider budget preparation, improve financial performance and enhance the capabilities of economic sectors.

In order to understand the various aspects of research and answer the problem, we rely on the descriptive analytical approach by describing the study variables in the theoretical axis in which we summarize the most important concepts, and the practical aspect through the collection and analysis of statistics to measure financial sustainability.

2. Theoretical framework

2.1. Analysis of the current budget system in Algeria:

The state's general budget is the mirror that reflects fiscal policy and everything related to revenue issues and government spending to run various public utilities, and therefore the budget is seen as the tool that the state can achieve its goals and future plans.

Many specialists studying the current budget system have agreed that there are several shortcomings and imbalances that impede financial management and the achievement of established goals through the state's reliance on the budget of means instead of adopting the technique of preparation by programs, and management based

on results, as Law 84/17 relating to the Finance Law is distinguished It is just an ordinary law, especially since it no longer keeps pace with the pace, developments and political and economic reforms that were initiated years ago (omar, 2016, p. 60) therefore, it has become impossible to continue managing public finances with a law that relies on mobilizing means instead of managing with the logic of results in light of the initiation of financial reforms.

2.2. Law 84/17:

Finance Law 84/17 issued on July 7, 1984, related to the finance laws, is the first law that attempts to define some of the public finance parameters of the modern Algerian state, and to keep pace with the new economic system after Algeria's transition from the socialist system to the market economy system. It is noted that the first six articles of Law 84/17 It came to give a comprehensive and broad concept of the Finance Law in Algeria, which enables the adoption and implementation of the budget through it, and this shows that this law is only the second aspect of the state's budget.

Among the most important provisions of this law are:

- Provisions relating to the definition of finance laws, supplementary finance laws and budget regulation law,
- Provisions related to the state's general budget, which pertain to the expenditure and revenue sides,
- provisions relating to other budgets (the supplementary budget, the budget of local authorities and public bodies),
- general provisions relating to treasury operations,
- general provisions related to the preparation, approval and implementation of finance laws,
- Various provisions.

2.3. General budget:

The state's general budget expresses its discretionary plan and a reflection of the fiscal policy through revenues and expenditures during the year in order to implement programs and achieve goals. It is also defined according to Finance Law 84/17 as

consisting of the final revenues and expenditures of the state determined annually under the Finance Law and distributed in accordance with the applicable legislative and regulatory provisions.

There are many definitions related to the budget through the aspect that is considered, but in general it is an accounting tool that shows the final public expenditures estimated under the Finance Law, and the public revenues expected to be collected to cover the expenditures, in addition to being a means to achieve the strategic objectives of the state. It should be noted the importance of That the economic effects of the state's financial activity did not gain importance under the traditional financial thought, so it was necessary to look at the general budget in light of a large framework that expresses the activity of the whole society, and therefore the importance of the economic effects necessarily led to looking at the budget in the economic budget, and therefore requires Distinguishing between budget and what may be mixed with it (adel, 1992, p. 371).

2.4. Indicators related to the general budget:

Reliance on petroleum levies that are directly affected by world market prices by a large percentage in financing the general budget to cover expenditures has led to weak economic activity, which has negatively impacted regular resources, in addition to the continuation of the budget deficit, which leads to resorting to debt, or covering the deficit through non-financing.

Table (1): The development of the general budget during the period 2010-2020.

| Indications years | budget revenue | budget expenditures | budget balance | GDP growth % | Balance to GDP % |
|----------------------|----------------|---------------------|----------------|--------------|------------------|
| 2010 | 4392,9 | 4466,9 | -74 | 11991,5 | -0,62 |
| 2011 | 5790,1 | 5853,6 | -63,5 | 14588,5 | -0,44 |
| 2012 | 6411,3 | 7058,1 | -646,8 | 16208,5 | -4,08 |
| 2013 | 5957,5 | 6024,1 | -66,6 | 16650,1 | -0,40 |
| 2014 | 5738,4 | 6995,8 | -1257,4 | 17242,5 | -7,30 |
| 2015 | 5103,1 | 7656,3 | -2553,2 | 16591,8 | -15,29 |
| 2016 | 4747,5 | 7297,5 | -2550 | 17081,8 | -14,65 |
| 2017 | 6182,8 | 7282,6 | -1099,8 | 18575,8 | -5,82 |
| 2018 | 6389,5 | 7726,3 | -1336,8 | 20259,1 | -6,60 |
| 2019 | 6567,7 | 7725,5 | -1157,8 | 20288,4 | -5,71 |
| 2020 | 6289,7 | 7823,1 | -1533,4 | 21424,6 | -7,16 |

Source: based on Bank of Algeria, annual report (various years)

The large and increasing expansion of expenditures led to a widening of the gap in the state budget, which led to its imbalance despite the cautious policy of the state, and despite the continuous efforts to implement reform policies, the budget imbalance was clear for a long period of time, and the relative decline in the deficit rates starting in 2017. As a result of the state taking rationalization measures in public spending, the reason for the growing deficit rates in the budget is due to:

- The increase in the volume of public expenditures as a result of development programs;
- The developments in petroleum taxation as the largest contribution to budget revenues, which led to an increase in spending, as revenues did not keep pace with this increase.

2.5. Disadvantages of the current budget system:

The current budget system suffers from several shortcomings that have led to the need for reform and modernization of this system, as the applied item budget system is characterized by its complete rigidity on the one hand and its continuous deviation from the basic principles that govern it on the other hand, as the authorities often intend to violate the basic principles that govern it, such as overriding the annual principle the budget by overusing the special accounts of the treasury, or by resorting to excessive regulation during the fiscal year around budget authorizations granted to the government by Parliament (Mas'i, 2020, p. 69); In addition, the most important shortcomings that characterize the current budget system are mentioned in the following points:

- The absence of a multi-year budget planning framework, which created gaps between national budgets and plans;
- Managing public expenditures on the basis of means rather than results;
- Focusing the prior control on the elements of legality and conformity, while completely ignoring the elements of effectiveness and performance, in addition to the limited post-control;

- The limited financial autonomy of the various public institutions and local and regional groups due to the insufficiency of their own resources, their sometimes almost total dependence on state subsidies;
- Lack of transparency and ambiguity of budget documents;
- The information system is ineffective;
- The focus of the public accounting system on the principle of legitimacy, that is, the conformity of decisions and procedures to the legislative and regulatory system at the expense of the appropriateness and effectiveness of financial decisions;
- Multiple control centers, which takes a long time to implement the financial process (tabti, 2015, p. 22).

With regard to the management aspect of the budget, compared to the applicable international standards, the World Bank conducted a comprehensive evaluation using a set of indicators. The evaluation showed that Algeria applies only 05 indicators out of a total of 16 indicators, emphasizing that performance was weak in the stages of formulation, budget implementation, and reporting. (mondial banque, 2007).

In order to translate the strategic directions of the state, give a clear view of the priorities, and rationalize public spending by adhering to the rules of financial discipline, it was necessary to proceed with the reforms related to the current budget system, and to transform the budget document from an abstract and dry character to a document showing planning in the medium term, and achieving results more effectively and efficiently.

3. Financial sustainability and its most important indicators

3.1. Definition of Financial Sustainability:

There are many definitions of financial sustainability according to the aspect from which it is considered, there are those who linked it to the principles of the budget and its time constraint, and there are those who defined it from the point of view of public debt management and the ability to serve and sustain it, or the government's ability to change its financial policies while continuing to be able to pay off debts, and there are

those who linked Sustainability with social welfare (tamer, 2021, p. 185) , the concept of financial sustainability has been linked to the rules of financial discipline and improving financial performance to improve the performance of domestic finance.

Liuta et al (2012) proposed a metrology methodology to assess the financial capacity of local budgets by calculating an integrated indicator consisting of three components: financial capacity, financial independence and financial adequacy, which allows Determining the problems of local budgets, their causes, as well as proving the efficiency of financial relations (Dekhtyar, Valaskova, Deyneka, & Pihul, 2020, p. 36) , Also, most of the definitions agree that the basic condition for ensuring the sustainability of public finances is the extent to which the state is able to continue to implement policies determined by the public finances to finance the various public spending programs without being exposed to cases of financial default and default. (Al Nuaimi & elbasha, 2018, p. 563).

Through the various definitions - according to the researcher's knowledge - financial sustainability is mainly related to the financial policy that ensures continuity without exposure to bankruptcy cases, and the ability to service debt without future generations bearing the consequences of current decisions as a result of excessive public spending financed by public debt, in a manner that guarantees economic growth.

3.2. Financial Sustainability and Public Debt:

The debt crisis is the reverse case of financial sustainability, and this situation was the result of financial decisions that led Algeria to a crisis that affected successive generations, as debt servicing acquired a large proportion of the proceeds of exports (khan, 2018, p. 132).

It should be noted that some studies distinguish between two approaches to studying financial sustainability (tamer, 2021, p. 185):

- **The first approach:** the sustainability of public debt from the point of view of the

lender, and this approach depends on the supply side, where financial sustainability is achieved when lenders continue to finance the fiscal deficit or the current account deficit.

- **The second approach:** the sustainability of the public debt from the point of view of the borrower, and this method depends on the demand side, and financial sustainability is defined. Public debt according to this approach is the ability of the debtor state and its desire to fully fulfill its current and future obligations without the need to reschedule or affect economic growth.

Public debt is considered the most widely used measure of the state's ability to achieve financial sustainability, and this is due to its main advantage of the payment process in foreign currency. Therefore, the fiscal policy prepared by the Ministry of Finance usually aims to reconcile state revenues and its ability to fulfill the debt and serve it in the short term and average, and ensuring the sustainability of funding sources, given that the budget policy is linked to oil prices, affects the budget balance.

3.3. Financial Sustainability Assessment:

The economic situation in Algeria has witnessed many turmoil as a result of the decline in oil collection revenues due to the decline in oil prices in global markets, and due to the weakness of regular revenues, the financial situation has become under pressure, especially with regard to the aspect of public expenditures, which necessitated taking the necessary measures to control the public budget, and therefore we will To assess the reality of financial sustainability during the current situation.

Table 2: The evolution of public debt for the period 2010–2020

| Indications / years | internal public debt | external public debt | Public debt | Public Debt to GDP Ratio % | Indications / years | internal public debt | external public debt | Public debt | Public Debt to GDP Ratio % |
|---------------------|----------------------|----------------------|-------------|----------------------------|---------------------|----------------------|----------------------|-------------|----------------------------|
| 2010 | 1107,4 | 409,3 | 1516,7 | 12,65 | 2015 | 2444,0 | 301,4 | 2745,4 | 16,44 |
| 2011 | 1214,8 | 320,5 | 1535,3 | 10,57 | 2016 | 3991,8 | 416,0 | 4407,8 | 25,32 |
| 2012 | 1312,1 | 286,9 | 1599,0 | 10,09 | 2017 | 5790,8 | 443,7 | 6234,5 | 32,98 |
| 2013 | 1176,6 | 269,9 | 1446,5 | 8,69 | 2018 | 7580,3 | 466,4 | 8046,7 | 39,72 |
| 2014 | 1238,0 | 298,1 | 1536,1 | 8,92 | 2019 | 8585,0 | 137,7 | 8722,7 | 42,99 |

Source :Bank of Algeria, annual report (various years)

The period 2010-2014 witnessed the lowest ratio of public debt to gross domestic product compared to the previous years, due to the record rise in oil prices and the early repayment of foreign debt. This policy had a significant impact on the development of the volume of monetary reserves, which reached a maximum in 2014, when Algeria moved from Indebtedness that suffers from a lack of resources to an economy that suffers from surplus resources. However, the return of the high ratios of public debt to GDP in recent years was a result of the sharp contraction in oil revenues at the end of 2015. The reason for the rise in internal debt is also due to the purification of public institutions through Buying debt, recapitalizing banks, and issuing national bonds to support growth in mid-2016 to finance the budget deficit.

With regard to assessing the reality of financial sustainability during the period, it is noticeable from the table that the ratios of public debt to GDP reached a maximum during 2015 at a value of 16.44%, which reflects rather stable ratios and indicates the sustainability of public debt, due to the high oil prices, which amounted to Petroleum taxation levels are higher in this period.

With the beginning of 2016, it is noticeable that the ratios of public debt to GDP have witnessed a remarkable increase, reaching 42.99 in 2019, due to the rise in internal debt rates, which was caused by the issuance of bonds in favor of the Bank of Algeria, to implement non-traditional financing and finance the total deficit of the public treasury, which It had an impact on financial sustainability in this period, as the expansionary policy supported by unconventional financing in 2017, approved for a period of 05 years, and given the circumstances in this period, the policy adopted does not support achieving financial sustainability considering the high levels of internal debt and the ability to service it in the future.

The government's saving policy in 2000 by establishing the Revenue Control Fund was largely successful in getting rid of the external debt, by paying it in advance for external debts and strengthening the financial sustainability of the state budget, while the non-traditional financing mechanism adopted since 2017 in view of the performance

of the Algerian economy is a non-conventional policy, supportive of achieving financial sustainability for the state. (Bouaishaoui & ghezazi, 2020, p. 105) .

3.4. Financial Sustainability Test:

We previously indicated that there are different methods used to determine the state's ability to achieve financial sustainability. Among the methods used in many previous studies - the study of **Al-Hamzawi and Mutasim** (2016) entitled **Measuring the Financial Sustainability of the Arab Gulf Countries**, and **Thamer Ali Al-Nuwairan's** study entitled **Analyzing the Sustainability of Public Debt In Jordan for the period 2000-2020** - a study by **Mokhtar Osmani and Rabah Okil** entitled **Assessment of the Financial Sustainability of the General Budget in Algeria**, and a study **NZARAMBA LILIANE** titled: **Measuring Fiscal Sustainability of African Economies** Where these studies aimed to measure and evaluate financial sustainability through approaches and indicators to measure it. And through the method of comparing the elasticity of public expenditures and revenues by calculating the internal elasticity in the short term, and based on the standard analysis of data during the period 2000-2020 through the following two equations:

$$\log G_t = c + \alpha_1 \log GDP_t + \alpha_2 \log G_{t-1} + UT \dots \dots \dots 1$$

$$\log R_t = c + \beta_1 \log GDP_t + \beta_2 \log R_{t-1} + UT \dots \dots \dots 2$$

whereas :

α_1 : and α_2 indicate the short-run elasticity of public expenditures,

β_1 : and β_2 indicate short-run elasticity of public revenue.

g_t : general expenditures,

R_t : general revenue.

Public revenues and public expenditures in the long run are also an important indicator that shows the state's ability to achieve financial sustainability. Further measures were taken to bear the public debt service, and to estimate the long-term flexibility of public expenditures and revenues, the following has been relied on:

- The overhead elasticity is calculated by the following equation: $\alpha_1 / (1 - \alpha_2)$

- The public revenue elasticity is calculated by the following equation: $\beta_1 / (1 - \beta_2)$

The results of Table No. 03 of the unit root test (pp) show that it is not possible to reject the null hypothesis that the two series have a unit root at the level, but we accept the alternative hypothesis when making the first difference

For the two series, this means that the two variables are complementary of order I(1) at the 5% level of significance.

Table No.03 : Stability Test

| Stability Variables | The first difference I(1) | | | in the level | | |
|------------------------|---------------------------|-----------|---------------------|--------------|-----------|---------------------|
| | none | intercept | Trend and intercept | none | intercept | Trend and intercept |
| Rt | 0.0003 | 0.0006 | 0.0011 | 0.93 | 0.17 | 0.25 |
| Ct | 0.0024 | 0.0039 | 0.0008 | 0.94 | 0.35 | 0.56 |

Source: Based on the output of eviews 12

To make a comparison between the elasticity of public expenditures and public revenues, it was relied on the ordinary least squares method, and by taking data for expenditures and revenues for the period 2005-2020, the results were as follows:

$$C_t = -1381.34 + 0.47GDP_t + 0.38 C_{t-1} \dots \dots (1)$$

$$R^2 = 0.95, DW = 1.81, Prob(F) = 0.00$$

$$R_t = 1494.81 + 0.24GDP_t + 0.36 R_{t-1} \dots \dots (2)$$

$$R^2 = 0.87, DW = 0.97, Prob(F) = 0.00$$

After conducting the necessary tests to validate the used model based on the outputs of (eviews 12) and through the autocorrelation test and the variance test, it was found that all probability values are greater than 5%.

Table No.04: Diagnostic Tests

| Diagnostic tests | Prob/equation 2 | Prob/equation 1 |
|----------------------------|-----------------|-----------------|
| Serial Correlation LM Test | 0.12 | 0.29 |
| Heteroskedasticity Test | 0.99 | 0.47 |
| Normality test | 0.85 | 0.60 |

Source: Based on the output of eviews 12

The previous standard tests show the appropriateness of the model used and to ensure that it is free of problems represented in the residual test, and according to the results of the problem of serial correlation between errors (LM), the model does not

suffer from the problem of autocorrelation, as the probability value of P-value is greater than the level of significance 5%, as shown in the following table, and the Homoskedasticity test also showed that the model is free from the problem of instability of variance according to the following table, as the probability corresponding to the calculated value of the (Chi-sq) statistic is greater than 0.05 at the level of significance of 5%. By testing the normal distribution of residuals, it turns out that according to the test of Jacques-Bera- which shows that the probability value of it with a value of 0.49 is greater than 5%, and therefore we accept the hypothesis of the normal distribution of residuals (see the appendix).

After calculating the long-term elasticity of public expenditures and public revenues, 69% and 49%, respectively, and this means that public expenditures increase at rates that exceed the growth of public revenues and indicates that revenues have not kept pace with public expenditures throughout the study period, and this confirms the high ratios of public debt to GDP This leads to the assumption of debt service, and leads to the difficulty of achieving financial sustainability in the long term, at least.

4. Measures Taken to Achieve Financial Sustainability

The economic and financial situation in Algeria has gone through several stages, the most important of which are the stage before the oil crisis, the stage after the oil crisis, and then the period of the Covid-19 pandemic.

For all of this, the Algerian authorities rushed to move forward with reforms to reconsider the current budget system and the fiscal policy adopted, in an attempt to give a clear and comprehensive view of the budget's path over the medium term, in line with the government's initiatives to proceed with reforms that affected various vital sectors.

4.1 Budget reform:

The Ministry of Finance has embarked on preparing a project to modernize the budget system to lay the mainstay for the reform of public administration and the strengthening of the program-based budget system with the logic of efficiency and effectiveness, and to give a clearer financial policy direction, by contracting with the

Canadian Company for Services and Consulting CRC- Sogema to determine the prevailing financial situation in order to set A coherent system that directs the preparation of the state budget and the restructuring of the public expenditure cycle, and the project generally aims to (akhal, 2019, p. 415):

- Creating a results-based culture by directing the budget towards achieving goals;
- making the budget more transparent through how it is presented and published;
- improved forecasting of fiscal policy and public expenditures;
- Facilitating the selection of national strategies by providing reliable information;
- Strengthening the monitoring of budget implementation and the effectiveness of fiscal policy through the information system;
- Taking responsibility through results-based management;
- Determining programs according to priorities and strategies to allow rational use of financial resources.

The program of modernizing the state's general budget in order to bring about structural changes and amendments to the current budget system has been based on: (selami, 2012, p. 155):

- Changing the rules and practices in preparing, implementing and controlling the budget by setting a multi-year budget. This requires a review of the budget structure and the development of a set of new rules and procedures that allow the preparation of the budget in accordance with the new reforms;
- Improving the presentation and dissemination of the budget to provide the necessary information in a more credible, transparent and public manner, so that the state's accounts are regular and honest and give a clear picture of its financial situation;
- Formulation of fiscal policy, preparation and follow-up of programs; By setting a medium-term spending framework, strengthening the capacity to analyze projects, strengthening the methodology of pre-analysis of projects, and restructuring the procedures for implementing public expenditures;

- Develop an appropriate and effective information system that collects and classifies information and then publishes it around a specific environment after processing it, in which all phases of the budget cycle are integrated from preparation to approval, implementation, evaluation, and then monitoring.

4.2. Adoption of Organic Law 15/18 related to Finance Laws:

The imbalances and shortcomings of Law 84/17 related to finance laws and its failure to keep pace with the transformations taking place at the level of public finance management, made reforming the framework governing public finance laws a necessity for review. To integrate with the success of the public budget modernization elements.

The Algerian legislator sought, through Organic Law 15/18 of September 02, 2018, to direct the budget towards managing results based on objectives and strategies, and the law targets two objectives: (akhal, 2019, p. 445)

- Reforming the public management framework and directing it towards results, as Article 02 of Law 18/15 stipulates in this context the principle of results-based management based on clear and specific objectives in accordance with the objectives of the public interest, with the need to submit to evaluation by linking public expenditures to the achievement of results;

- Enhancing the transparency of budget information, as Law 18/15 provided a number of reports and explanatory annexes to allow decision-making, implementation and oversight, as stated in Articles 72, 75, 76, and 87.

In the context of preparing the organic law related to finance laws, 12 executive decrees were published on the website of the General Secretariat of the Government related to the financial and accounting management of the state budget within the framework of the new budget update.

4.3. Requirements for the success of the budget reform project in Algeria

The new economic dynamism that the government intends to include depends on the rationalization of public spending through commitment to fiscal discipline and budget rigor, which is reflected in the performance of expenditures and their alignment

with the available financial resources. By 2024, it aims to ensure that the entire operating budget is financed from regular tax revenues.

The achievement of the objectives of budgetary reform through the modernization project can be judged after its implementation. However, the success of this project is subject to necessary conditions that may be agreed upon in most countries that have pursued this field, which are summarized in the following points:

- Clarity of the objectives to be achieved in the medium and long term with effective multi-year programs and regular periodic evaluation of the applied management policies;
- Introducing a permanent system of innovation and innovation in management and creating exemplary management bodies;
- reform of the public administration in order to adapt it to the procedures and methods of the new system;
- Improving the relationship between Parliament and the government so that this relationship is clearly defined and defined in tasks and functions;
- Training of workers and managers in order to enable them to adapt to new elements and to ensure their optimal use;
- The gradual application of the reform axes to enable the administration to adapt, manage and implement in a way that serves the reform strategy;
- The use of modern technologies and means because they guarantee high efficiency;
- Benefiting from previous international experiences and familiarizing themselves with the reform process to serve this field.

5. Analysis of the results

- Based on previous analysis and tests, it was found that:

The dominance of the logic of means in managing the budget without programs to achieve goals in light of the dependence on oil revenues led to the accumulation of the budget deficit due to the successive oil crises, which made the reliance in the management of finance to Law 84/17 issued in July 1984, whose provisions are

outdated, unable to keep pace with developments achieved at the level of public finance management;

- Algeria's financial situation is not characterized by financial sustainability in the long term, as through the assessment of financial sustainability, it was found that there are still great challenges in order to achieve this, and this is evidenced by the budget deficit rates, given that public revenues in Algeria are still linked to petroleum taxation and the price of a barrel of oil. In addition to the increase in the ratios of public debt to GDP ratios in recent years, which requires servicing it by taking financial measures;
- The results indicate that the situation in Algeria is not characterized by strong sustainability in the long term, as expenditures grow faster than revenues. In the short term, the results obtained indicate that the volume of public spending determines the volume of government revenues;
- Law 18/15 related to finance laws aims to link spending by directing it towards the logic of results instead of the logic of means as applied in Law 84/17 related to finance laws, in addition to strengthening the effectiveness and performance of financial management.

6. Conclusion

The absence of a real strategic vision for managing public finances, and the reality of the state's general budget being linked to the rentier nature and oil prices in global markets, has a direct impact on the sustainability of the public budget, which is evident through the high levels of the budget deficit and the ratios of public debt to domestic product, as indicated by the results of this study. Despite the efforts made and the political will to continue reforms, especially with regard to diagnosing the public budget by working to embody the project of modernizing its system, as it became necessary to embody the project on the ground, which was approved by the government starting in the year 2023 through the Finance Law, which is framed by Organic Law 18 /15, and managing the budget with the logic of results.

7. Suggestions

- Adopting a clear strategy aimed at economic diversification and creating new sources of revenue to break dependency on oil;
- Directing borrowing to finance productive projects;

- Working on investment spending that generates returns;
- The embodiment of Organic Law 15/18 relating to the laws of finance;
- Investing in human capital to avoid exposure and non-acceptance of commitment to new laws.

7. Appendices:

Table of variables for the evolution of time series under standard study

| N | Rt | Ct | GDP | N | Rt | Ct | GDP |
|------|--------|--------|---------|------|--------|--------|---------|
| 2004 | 2229,7 | 1891,8 | 6149,1 | 2013 | 5957,5 | 6024,1 | 16650,1 |
| 2005 | 3082,6 | 2052 | 7562 | 2014 | 5738,4 | 6995,8 | 17242,5 |
| 2006 | 3639,8 | 2453 | 8501,6 | 2015 | 5103,1 | 7656,3 | 16591,8 |
| 2007 | 3688,5 | 3108,5 | 9352,9 | 2016 | 4747,5 | 7297,5 | 17081,8 |
| 2008 | 5190,5 | 4191 | 11043,7 | 2017 | 6182,8 | 7282,6 | 18575,8 |
| 2009 | 3676 | 4264,3 | 9968 | 2018 | 6389,5 | 8927,8 | 20259,1 |
| 2010 | 4392,9 | 4466,9 | 11991,5 | 2019 | 6567,7 | 8557,1 | 20288,4 |
| 2011 | 5790,1 | 5853,6 | 14588,5 | 2020 | 6289,7 | 7823,1 | 21424,6 |
| 2012 | 6411,3 | 7058,1 | 16208,5 | - | - | - | - |

Source: Based on the annual reports of the Bank of Algeria and the Finance Law 2019-2020.

Tables related to the standard study:

$$\text{First equation: } \log C_t = c + \alpha_1 \log GDP_t + \alpha_2 \log C_{t-1} + UT$$

Dependent Variable: CT

Method: Least Squares

Date: 08/19/22 Time: 22:21

Sample (adjusted): 2005 2020

Included observations: 16 after adjustments

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | -1381.343 | 451.5445 | -3.059151 | 0.0091 |
| GDP | 0.479577 | 0.028370 | 16.90422 | 0.0000 |
| DCT | 0.386879 | 0.165413 | 2.338877 | 0.0360 |
| R-squared | 0.956500 | Mean dependent var | | 5875.731 |
| Adjusted R-squared | 0.949807 | S.D. dependent var | | 2184.135 |
| S.E. of regression | 489.3271 | Akaike info criterion | | 15.39130 |
| Sum squared resid | 3112733. | Schwarz criterion | | 15.53616 |
| Log likelihood | -120.1304 | Hannan-Quinn criter. | | 15.39872 |
| F-statistic | 142.9245 | Durbin-Watson stat | | 1.816643 |
| Prob(F-statistic) | 0.000000 | | | |

Serial Correlation (LM)

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 2 lags

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 1.348998 | Prob. F(2,11) | 0.2993 |
| Obs*R-squared | 3.151405 | Prob. Chi-Square(2) | 0.2069 |

Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

| | | | |
|---------------------|----------|---------------------|--------|
| F-statistic | 0.800178 | Prob. F(2,13) | 0.4702 |
| Obs*R-squared | 1.753773 | Prob. Chi-Square(2) | 0.4161 |
| Scaled explained SS | 0.909726 | Prob. Chi-Square(2) | 0.6345 |

The second equation: $\log R_t = c + \beta_1 \log GDP_t + \beta_2 \log R_{t-1} + UT$

Dependent Variable: RT

Method: Least Squares

Date: 08/19/22 Time: 22:31

Sample (adjusted): 2005 2020

Included observations: 16 after adjustments

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 1494.813 | 402.6940 | 3.712033 | 0.0026 |
| GDP | 0.242059 | 0.025673 | 9.428706 | 0.0000 |
| DRT | 0.365257 | 0.138967 | 2.628365 | 0.0209 |
| R-squared | 0.874794 | Mean dependent var | | 5177.994 |
| Adjusted R-squared | 0.855531 | S.D. dependent var | | 1169.066 |
| S.E. of regression | 444.3503 | Akaike info criterion | | 15.19846 |
| Sum squared resid | 2566813. | Schwarz criterion | | 15.34332 |
| Log likelihood | -118.5877 | Hannan-Quinn criter. | | 15.20588 |
| F-statistic | 45.41443 | Durbin-Watson stat | | 0.972970 |
| Prob(F-statistic) | 0.000001 | | | |

Serial Correlation (LM)

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 3 lags

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 2.466035 | Prob. F(3,10) | 0.1222 |
| Obs*R-squared | 6.803596 | Prob. Chi-Square(3) | 0.0784 |

Homoskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

| | | | |
|---------------------|----------|---------------------|--------|
| F-statistic | 0.003367 | Prob. F(2,13) | 0.9966 |
| Obs*R-squared | 0.008283 | Prob. Chi-Square(2) | 0.9959 |
| Scaled explained SS | 0.003763 | Prob. Chi-Square(2) | 0.9981 |

Source: program output EVIEWS12

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