Adopting program and performance budgeting as an alternative to the traditional budget: A Strategic Vision for Fiscal Discipline and Deficit Reduction in the Algerian Budget (Canada's Experience as a Model)

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Abstract:

This paper examines the shift from traditional budgeting to program and performance budgeting as a strategy for fiscal discipline and reducing the budget deficit in Algeria in light of the trends of public finance reforms through Organic Law (18-15). It aims to overcome the shortcomings of item budgeting, as well as highlighting the critical importance of program and performance budgeting in controlling and monitoring public spending to increase the efficiency and productivity of the budget with minimal public spending, which contributes to reducing the budget deficit under the required fiscal discipline, Highlighting Canada's experience in adopting program and performance budgets and the possibility of benefiting from them. We relied on the descriptive-analyticalapproach by collecting statistical data on these determinants, tabulating and interpreting them. The study concluded that relying on program and performance budgeting in light of the activation of financial discipline mechanisms may make the Algerian government able to manage expenditures and revenues accurately, allowing it to address the budget deficit and achieve its financial goals set within the medium and long-term economic plan, Its reliance on the elements of success of the Canadian experience contributes to improving performance efficiency and achieving the government's strategic goals

Keywords: Program and performance budgeting; fiscal discipline; budget deficit; Canada's experience

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Introduction:

The increasing trend in public spending in Algeria, in the context of limited financial resources and heavy reliance on petroleum taxation, coupled with weak production in other sectors of the economy, has led to a persistent budget deficit. The adoption of a social-oriented policy, particularly since the turn of the millennium, further exacerbated the situation. These challenges have raised concerns about the sustainability of public finances, with the growing deficit potentially reaching levels that threaten both financial and monetary stability. Algeria's reliance on oil and gas revenues, while fueling public spending, leaves the country vulnerable to global price fluctuations, making it imperative to diversify the sources of revenue and optimize spending.

The structural nature of budget deficits is a common issue in many economies, including Algeria. With such economic challenges, a fundamental reform of public spending and revenue generation mechanisms became necessary. This led to the introduction of Organic Law 18-15, which aimed to strike a balance between public revenues and expenditures to control the budget deficit. The law emphasizes fiscal discipline through measures such as rationalizing public spending and ensuring that state resources are used judiciously, based on necessity, priorities, and economic feasibility. This reform also advocates for a shift towards performance-based budgeting and program budgeting, an advanced approach in financial planning that focuses on efficiency and aligning public spending with societal goals.

The application of program and performance budgeting aims to enhance the effectiveness of government operations, reduce inefficiencies, and prioritize high-impact investments. This budgeting model involves linking expenditures directly to desired outcomes, ensuring that public funds are allocated where they can achieve the greatest societal benefit. By shifting to this approach, Algeria intends to eliminate waste, optimize resource utilization, and ultimately reduce the persistent budget deficit. The question of whether this system can effectively address fiscal imbalances and enhance financial discipline in Algeria remains a critical issue.

Research Problem:

Given the above context, this study seeks to explore the following research problem:

What are the implications of applying program and performance budgeting in Algeria for reducing the budget deficit under the mechanisms of financial discipline? What are the factors of Canada's success that we can benefit from?

- **Importance of the Research:**

This research holds significant importance due to the critical need for reform in Algeria's public finance system. The current system, as embodied by the previous Organic Law, has exhibited several shortcomings, particularly in the efficient management of public funds and alignment with international financial standards. The shift from traditional budgeting to program and performance budgeting is a necessary response to these challenges, as it ensures a more transparent, accountable, and performance-driven approach to public financial management.

Program and performance budgeting helps in better distributing state revenues and contributes to administrative efficiency by rationalizing administrative decisions. By tying budget allocations to measurable outcomes, it can enhance the effectiveness and efficiency of government performance. This shift is expected to lead to better control of the country's financial resources, ensuring that expenditures are aligned with national priorities and deliver tangible societal benefits. Consequently, this approach is not only a tool for improving public administration but also a crucial instrument in reducing the budget deficit and ensuring long-term fiscal sustainability.

- **Research Methodology:**

Given the nature of the topic and its problem-solving approach, this study adopts a descriptive-analytical methodology. This approach is particularly suited for examining the intricacies of public financial management and the implications of the new budgeting system in Algeria. By collecting and analyzing data related to the implementation and impact of program and performance budgeting, this methodology will allow for a thorough understanding of how this system can contribute to fiscal discipline and deficit reduction.

The descriptive aspect of the methodology involves documenting the current state of public finance management in Algeria, the historical context of budget deficits, and the legal reforms introduced by Organic Law 18-15. The analytical aspect will involve evaluating the effectiveness of the program and performance budgeting system, comparing it with Algeria's previous budgeting practices, and assessing its potential to meet the country's financial goals.

In summary, this study aims to provide a comprehensive overview of the public budgeting reform in Algeria, with a focus on program and performance budgeting as a tool for reducing the budget deficit. The findings will contribute to the ongoing discussions on fiscal reform in Algeria, offering insights into the practical application and outcomes of this innovative budgeting system.

1. The General Budget of the State: Its Elements, Importance, and Types:

The general budget of the state is defined as a fiscal plan prepared by the executive branch and approved by the legislature. It includes estimates of public revenues and expenditures for a future fiscal period, aimed at achieving the government's economic and social objectives. The budget document presents financial allocations for government agencies and outlines the programs and projects the government intends to implement in the upcoming fiscal period (Al-Bassam, 2018).

According to Article 3 of Law 21/90 on Public Accounting, the Algerian legislator defines the general budget as the document that estimates and approves, for the fiscal year, the total revenues and expenses related to management and investment, including public processing and capital expenditures Similarly (Algeria, 1990, art. 03) Article 6 of Law 17/84 on Finance Laws stipulates that the general budget of the nation consists of the final revenues and expenditures determined annually by the finance law, which are then distributed according to the legislative and regulatory provisions in force.

1.1. Elements of the General Budget of the State:

1.1.1. The General Budget as a Fiscal Plan: The general budget serves as a fiscal plan by helping the government achieve its economic and social objectives through its revenues (collection) and expenditures (financial allocations). The strategic plans and general objectives of the state are endorsed by the government, considering the country's financial and economic conditions .

1.1.2. Public Budget Prepared by the Executive: The preparation of public expenditure estimates is a key component of the budget. The accuracy in estimating expenditures for programs, projects, and current operations for the upcoming fiscal period is critical for optimizing the use of financial resources. Moreover, coordination between government agencies is essential to achieve the strategic objectives of the state by efficiently utilizing available resources.

1.1.3. Estimation (Forecasting): The budget serves as a detailed estimated statement of the revenues expected by the executive authority and the expenditures it must incur during a set period, typically one year, in alignment with the fiscal policy dimensions of the state .

1.1.4. Licensing: Licensing refers to the approval process by the authority designated by law to approve the budget. This approval is typically carried out by the Head of State after assessing the foundational bases and the desired objectives of the budget .

1.1.5. General Budget Periodicity: The general budget is typically prepared on an annual basis in most countries .

1.2. The Importance of the General Budget of the State:

The budget is a critical tool for implementing the state's economic plan, directly linked to the economic strategies announced by the ruling political authority. This economic program varies depending on the system of government—whether socialist, capitalist, or other. Capitalist countries tend to rely on performance-based and program-based budgets, whereas socialist states focus on planning and program-based budgets. Regardless of the type of governance, the general budget is the main instrument ensuring the fiscal balance of the state while achieving its general policy goals .

The importance of the general budget can be seen in various aspects, notably political, economic, and legal.

1.2.1. Politically: The budget represents the financial expression of the state's public policy and serves as an indicator of its economic and social orientations. For example, the Maastricht Treaty mandates that countries wishing to join the European Union must limit their budget deficit to no more than 3% of their GDP .

1.2.2. Economically: From an economic perspective, the budget impacts the economy by influencing aggregate demand, which, in turn, stimulates economic growth. This can be achieved through increased government spending on investments or by implementing protective economic policies, such as raising duties on foreign goods to favor national production .

1.2.3. Legally: The budget is a legal document issued annually under the applicable finance law in the state. It is subject to approval by the People’s National Assembly and the Council of the Nation. Once approved, the budget becomes a law, which mandates its implementation and ensures compliance with its provisions and deadlines .

1.3. Types of State Budgets:

Public finance specialists and researchers have developed various types of budget systems that are efficient, effective, and suitable for the needs of countries. These systems are designed to be applicable and aligned with the economic and regulatory structure of the state. While many types of budget systems exist, only a few are considered viable according to international standards and practical practices by governments, depending on the state’s political, organizational, economic, and social characteristics. Below are the most prominent types of budgets currently applied in full or in part by governments:

1.3.1. Traditional Budget: The traditional budget is the first modern model of the general budget and is more prevalent in developing countries than in developed ones. It is referred to by several names, such as the "item budget" due to its focus on budget items and appropriations, and the "control budget" because it emphasizes tight control over public expenditures across ministries and government departments. It is also known as the "tiered budget" because its expenditures increase annually, albeit at small rates (Asfour, 2011, pp. 198–199). The traditional budget classifies revenues and expenditures by ministries and public institutions, with divisions into sections, chapters, and items based on the type of expenditure .

- Advantages of the Traditional Budget:

- Clear forms and guidelines for budget preparation;
- Easy to set up;
- Strict control over expenditures;
- Clear accountability for expenditure;
- Facilitates studies and comparisons of revenues and expenditures over time.

- Disadvantages of the Traditional Budget:

- Lack of clarity regarding the objectives of appropriations;
- Long-term planning challenges;
- Limited flexibility in execution;
- Absence of alternative evaluations and analytical studies;
- Inability to incorporate new programs effectively;
- Not linked to performance .

1.3.2. Achievement Budget: The achievement budget emerged as a response to the limitations of the traditional budget, particularly the need to apply scientific management methods. This budget involves amending the accounting system, introducing cost accounting, and focusing on performance measurement through performance rates and percentages (Aliwi, n.d., pp. 5–6).

- Advantages of the Achievement Budget:

- Facilitates better distribution of resources based on program outputs;
- Enhances administrative efficiency and government performance;
- Enables the measurement of each agency's efficiency in achieving project goals.

- Disadvantages of the Achievement Budget:

- Difficulty in defining performance units for some programs;
- Lack of detailed information in many government agencies;
- High implementation costs and complexity, especially for smaller agencies;
- Focuses on short-term goals, neglecting long-term strategic planning (Asfour, 2011).

1.3.3. Programming Budget: The programming budget focuses on optimizing decision-making processes for resource allocation. It is designed as a planning tool, aiming to evaluate alternative programs and efficiently distribute state resources, considering long-term goals and cost-benefit analyses .

- Advantages of the Programming Budget (Al-Bassam2018 p46-47)**:**

- Links the state's strategic plan with the public budget.
- Reduces waste by evaluating programs based on their societal benefits.
- Enhances the scientific foundation for public policies.

- Disadvantages of the Programming Budget Asfour (pp. 224–225)**:**

- Difficulty in defining objectives for all government activities;
- High financial costs for implementation;
- Requires comprehensive reorganization of government agencies .

1.3.4. Zero-Based Budget: The zero-based budget starts from scratch every fiscal period, eliminating previous programs and re-evaluating all expenditures based on current needs and outcomes, ensuring maximum efficiency and cost-effectiveness Aliwi (n.d., p. 6)

- Advantages of the Zero-Based Budget Al-Bassam2018, p. 49**:**

- Eliminates unnecessary programs, focusing resources on those with the greatest developmental impact;
- Encourages widespread participation in decision-making, reducing centralization;
- Improves the efficiency of government agencies.

- Disadvantages of the Zero-Based Budget (Al-Bassam2018, p. 53)**:**

- Requires extensive and accurate data for preparation;
- Time-consuming process, especially when compared to traditional budgets;
- Difficult to apply cost-benefit analysis for some programs, particularly social ones;
- Necessitates comprehensive data on all programs, which may not always be available.

2. Balancing programs and performance and adjusting the general budget: Fiscal sustainability, defined as the ability to maintain a stable public debt-to-GDP ratio over time without drastic policy changes, is a critical aim of macroeconomic management (David Mensah Awadzie and other, 2025, p 1). Instead Financial discipline is defined as the ability of the public administration to maintain the safety and security of its financial operations in the long term. In this concept, financial discipline acquires two characteristics:

- Fiscal discipline should be available for several years, i.e., not limited to a single fiscal budget;
- The need for financial safety and security for the government, that is, to mitigate fluctuations and financial crises during economic cycles.

It is the case in which the total expenditure on public revenues does not exceed and does not exceed the fiscal ratio of GDP, so that there is an estimate of public expenditure during the year according to net income.

Fiscal discipline, strictly speaking, is a set of rules that guide the government to work to determine public spending in line with public revenues, determine deficit ratios, public debt, and the tax burden in order to achieve fiscal sustainability and support the achievement of macroeconomic stability (Hussein Muhajar Faraj & Imad Muhammad Ali, 2019).

2.1 Fiscal discipline and public budget deficit:

Deficits can be allowed when spending is exceptionally and temporarily high, or when revenues are temporarily low, during recessions. Thus, a law stipulating a balanced budget each year would overly restrict the use of budget deficits and surpluses as the necessary barrier to implementing optimal tax policy. (Alberto Alesina and Roberto Perotti, 1999, p 15)

The public budget deficit is defined as an increase in public spending on the public revenues of the state as a result of the non-response of the tax to the increase in public expenditures, which pushes the government to cover this deficit by resorting to various sources of funding, in order to achieve the required economic goals. The public budget deficit can be considered an indicator of the extent to which fiscal discipline has been achieved in accordance with the Maastricht Agreement, which stipulates that the deficit to GDP ratio does not exceed (3%). Public expenditures must be planned in advance, according to the available economic resources to ensure balance between public revenues and expenditures and reduce the difference between them as much as possible.

Empirical evidence suggests that institutional rules governing the budget process affect fiscal performance. Procedural rules in the budget process can be used to contain fiscal illusion and the resulting spending bias. Thus, the budget process can be used as a compliance tool for fiscal discipline. (Jürgen von Hagen and Ian J. Harden, 2019, p 535)

low levels of budget deficits can help reduce the occurrence of economic crises and future risk of high and inconsistent levels of public debt. The volatility of the government budget deficit and its economic impact can be thought of from two different sides; one is positive and the other is negative. On the positive side, budget deficit volatility is considered to be an optimal policy response to economic downturns, recessions and sudden economic shocks.

It can be a consequence of using fiscal policy as a tool to counteract and smooth the economic fluctuations associated with external shocks. On the negative side, budget deficit volatility may cause an increase in the cost of financing debt, which then leads to financial burdens and loss of competitiveness of domestic firms. Moreover, such deficit volatility can make it hard for economic agents to expect the timing and magnitude of fiscal. (ASMAA EZZAT, RANA HOSNI, 2018, p 22)

2.2 **Balancing programs and performance:**

Performance budgeting is defined by the OECD as the systematic use of performance information to inform budget decisions, either as a direct input to budget allocation decisions or as contextual information to inform budget planning, and to instil greater transparency and accountability throughout the budget process, by providing information to legislators and the public on the purposes of spending and the results achieved. (OECD, 2019, p 9)

The performance budget and programs are the first outcome of attempts to modernize the budget system. They are mainly based on achieving administrative efficiency and reducing expenses. They also try to measure the efficiency of government agencies in achieving the set objectives. This budget has a set of advantages, the most important of which are: planning; cost estimation; review; review; control.

2.2.1 **Program and performance budget objectives:** Through the application of the program and performance budget, countries seek to achieve several objectives, the most important of which are (Ben Kouider Hayat, 2023):

- Optimization of available public revenues;
- Rationalizing the costs of program delivery and investment projects and selecting the least costly and most effective implementation alternatives;
- Evaluating the suitability of the program to the prevailing circumstances and ensuring that the results of the program achieve the announced objectives, as well as examining the possibility of other ways to achieve the objectives of the program, while studying the possibility of expanding it or even developing new programs;
- According to NILS (2008), the most important goals that countries seek to achieve by balancing programs and performance are: efficiency as the first dimension of performance and the ability to achieve results using the least possible resources and effectiveness as a second dimension. This dimension relates to the ability to achieve results in line with the objectives set in the beginning.

According to studies, there are certain steps to consider when planning a PPM system: (Alaa Mohamad Malo Alain, Magdy Melegy Abdul Hakim Melegy, 2017, pp 160-161)

Developing a strategic plan: Strategic planning creates a high-level plan for the next five or ten years. It explains the goals to be achieved, prioritizes them, and defines a clear strategy for achieving them. The strategic planning process provides a framework for policy and decision-making on government spending priorities and desired outcomes.

Define goals and objectives: Strategic planning should result in dividing these high-level goals into short, medium, and long-term objectives. These goals should be very specific, and spell out the “who, what, when, where, and how” of achieving the goals.

Define metrics: A performance measure is a numerical description of the work done by an organization, identifying metrics that can be used to evaluate the organization's efforts to achieve its specific goals and objectives.

Resource allocation: Resources are allocated to each program or agency. In the budgeting process, it takes into account, in a systematic way, the targeted service levels of programs and the past results achieved by expenditures based on program evaluation. Resource allocation processes reflect the organization's priorities and encourage efficient and effective spending.

Performance evaluation: This is the final step in the program and performance budgeting cycle. At this stage, agencies will measure all the results achieved by each program against the previously established target. The result should be collected and analyzed in a timely manner. Evaluation serves as a feedback loop for further improvement in the strategic planning process. These results will be used as vital inputs for the next cycle of program and performance budgeting.

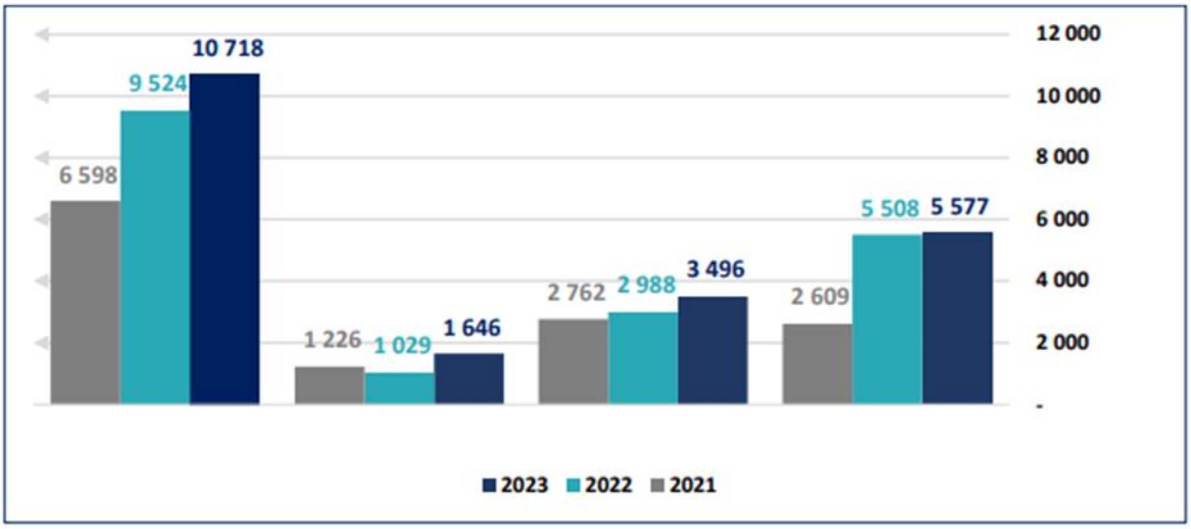
Tab (01): Development of Algeria's tax revenues during the period (2000-2023)

Years	Budget Revenues Billion DZD	Petroleum levies Billion DZD	Percentage of petroleum collection from total revenues	Normal collection of DZD 1 billion	Non-tax revenues	Budget Balance
2000	**1578.1**	**1213.2**	**76.87**	**349.5**	**15.4**	**400.04**
2001	**1505.5**	**1001.4**	**66.51**	**398.2**	**90.3**	**184.5**
2002	**1603.2**	**1007.9**	**62.86**	**483**	**112.4**	**52.54**
2003	**1974.4**	**1350.0**	**68.37**	**524.9**	**99.4**	**284.20**
2004	**2229.7**	**1570.7**	**70.44**	**580,4**	**72.1**	**338.09**
2005	**3082.5**	**2352.7**	**76.32**	**640.3**	**83.8**	**1030.79**
2006	**3639.8**	**2799.0**	**76.90**	**720.8**	**119.7**	**1186.91**
2007	**3687.8**	**2796.8**	**75.83**	**766.8**	**116.2**	**579.84**
2008	**5190.5**	**4088.5**	**78.76**	**965.2**	**136.3**	**999.45**
2009	**3676.0**	**2412.7**	**65.63**	**1146.6**	**115.8**	**570.33-**
2010	**4379.6**	**2905**	**66.33**	**1298**	**189.8**	**74.04-**
2011	**5790.1**	**3979.7**	**68.73**	**1527.1**	**283.3**	**63.50-**
2012	**6339.3**	**4184.3**	**66,01**	**1908.6**	**246.4**	**758.60-**
2013	**5957.5**	**3678.1**	**61.73**	**2031**	**248.4**	**66.63-**
2014	**5738.4**	**3388.4**	**59.04**	**2091.4**	**258.5**	**1257.30-**
2015	**5103.1**	**2373.5**	**46.51**	**2354.7**	**374.9**	**2553.23-**
2016	**4747 .4**	**1682.5**	**35.44**	**2722.6**	**342.3**	**2285.91-**
2017	**.55635**	**2200.1**	**39.03**	**3035.4**	**400**	**1234.75-**
2018	**6714.2**	**2776.1**	**41,35**	**3033.1**	**905**	**1072.20-**
9201	**6.5079**	**2714.4**	**41.70**	**3793.4**	**600**	**1123.93-**
2020	**6289.7**	**2200.3**	**34.98**	**4089.3**	**833**	**1261.98-**

2021	**5328.1**	**1919.2**	**36.02**	**3408.9**	**1226**	**842.10-**
2022	**9524 .14**	**5507.68**	**57.83**	**4016.46**	**1029**	**949.56-**
2023	**10718.5**	**5577.43**	**52,03**	**5141.07**	**1646**	**1686-**

Source: Bank of Algeria Annual Reports 2003, 2006, 2010, 2013, 2015. Finance Law 2016;2017; 2018;2019;2020;2021, 2022, 2023, National Bureau of Statistics.

Fig (01): Evolution of total budget revenues (2021-2023)



Source: Bank of Algeria, Annual Report 2023, p. 97.

Budget revenues reached a maximum of DZD 6,714.2 billion in 2018, and the general revenues are related to petroleum collection.

- Petroleum collection continued to represent about 65% of budget revenues from the beginning of the millennium until 2013, after which a downward trend was known due to the decline in oil prices, reaching 40% in 2020;
- The modest contribution of tax revenues to public revenues.
- The small contribution of non-tax revenues to public revenues, as their value during the study period was about 5% ;
- From the previous presentation, we note that the contribution of ordinary collection to total public revenues was weak and below the acceptable level. From this, we find that the goal pursued by the reforms of the tax system, which is to replace petroleum collection with ordinary collection, is still far from being reached, and the following challenges can be mentioned:
- Frequent reductions and exemptions aimed at encouraging and developing investment and exports;
- Poor productivity of the agricultural sector, and poor utilization of productive capacities in the industrial sector;
- The spread of fraud and tax evasion, the expansion of the informal economy, and the control of hydrocarbons over the structure of the national economy.

Budget control achieves that the total expenditure does not exceed the quantities prescribed for it in the general budget, so that public expenditure is estimated based on financial capabilities and not according to the financial needs required by the various administrative bodies and units. One of the methods achieved to control the budget is the policy of rationalizing public expenditure. Its application is inferred through indicators indicating its existence, such as the fiscal space index, as if public expenditure were not under control, according to priorities, and according to deliberate plans, fiscal space would not exist, and the fiscal discipline index, which is a restriction on major groups, including public expenditure, so that it does not exceed the limits prescribed for it and in line with the required priorities, avoiding wasteful behavior in public expenditure as well as the productivity index of public expenditure. The existence of public expenditure productivity indicates the activation of the policy of rationalizing public expenditure that was intended to make public expenditure a product by creating useful services.

2.2.2. **Requirements for the application of the program budget and performance in Algeria:** The provisions of Organic Law 18-15 related to finance laws have been effectively implemented starting from 2023, that is, the transition from the budget of items towards the budget of programs, by enabling all actors to absorb the new procedures and management tools. This transition requires the availability of a set of requirements, which we mention below:

- Shifting from the cash basis to the accrual basis: Balancing programs and performance requires relying on cost accounting, as all costs are taken into account when extracting the cost of the performance unit. Based on this, inventory adjustments must be made, which are to inventory the unused goods and determine the revenues and expenses submitted and due, in addition to taking into account the depreciation element. Working on an accrual basis or using cost accounting in the public sector in Algeria will allow a better knowledge of the costs of public services. It also represents a relevant tool in evaluating the performance of strategic options. It also plays a role in compliance with the principles of performance-based governance through cost transparency and accountability of those responsible for public finances.

- Moving from administrative to functional classification: Each minister or official of a public body is responsible for setting priorities, planning and distributing according to sections the expenditures, specific objectives, and expected results, as well as evaluating them. Public expenditures are classified according to the basis of functional classification according to the functions exercised by the government, such as health expenditures, education expenditures, etc., and the functional classification enables the application of the program budget and performance due to its economic efficiency, in addition to that it enables (Bin Quwaider Hayat, 2023):

- Showing the costs of performing each government function, which makes it possible to know the importance that the state attaches to each sector;
- Analysis of the evolution of spending on each sector between time and time and between regions, which enables the correction of disparities and the achievement of proportionality between regions;
- To be able to know the economic efficiency of each sector through the volume of spending on it and the results it achieves.

- Determining the officials of the programs and the freedom to make decisions for the officials:

According to Article 23 of Executive Decree 20-404, each program must be appointed an official by the minister or the official of the public authority. The functions of the program official are as follows:

- Prepares a report on priorities and planning and presents in this report the strategic directions and objectives of the program and justifies the required financial allocations;
- Prepares the initial programming document for the appropriations;

- Makes possible adjustments to appropriations;
- Divide performance objectives at the activity level;
- Examines with activity officers the implementation-related reports they submit;
- Prepares the ministerial report for productivity in terms of programs.

2.2.3. **Canada's experience with program and performance budgeting:**

Canada began the shift towards program and performance budgeting in earnest in the 1995 federal budget as a measure to control fiscal deficits, introducing elements of Prudent Budgeting into the approach:

- The introduction of explicit fiscal prudence factors such as "contingency reserves". And Focusing on regular fiscal surpluses.
- Beginning to tie some allocations to performance indicators. And In 2006, the principles of program budgeting continued, albeit with different priorities. Some of the most notable features of this period.
- Reducing fiscal prudence rates from $4 billion to $2.3 billion. And Emphasizing tax cuts as a priority over government spending.
- Developing more sophisticated systems to measure the performance of government programs.

In recent years, starting in 2016, the Canadian government has worked to:

- Mainstreamed the results-based budgeting methodology across most ministries.
- Develop integrated performance measurement systems.
- Linking annual evaluations to budgeting processes.

Canada has adopted several mechanisms to implement program and performance budgeting:

- Medium Term Expenditure Framework (MTEF): Budget planning for periods of up to 3-5 years instead of a single fiscal year.
- Performance Indicators System: Develop a set of quantitative and qualitative indicators to measure program performance.
- Results-based accounting: Modifying government accounting systems to reflect program costs and results.
- Periodic audits: Regularly evaluating the effectiveness of government programs.

In terms of challenges and obstacles, Canada faced several challenges in the transition process:

- Bureaucratic resistance: Some government agencies oppose change for fear of losing control of resources
- Difficulty in measurement: The complexity of quantifying the results of some social and development programs
- Economic volatility: The impact of crises (such as the 2008 crisis) on the capacity of governments.

In terms of challenges and obstacles, Canada has faced several challenges in the transformation process: Bureaucratic resistance ; Difficulty in measurement ; Economic volatility ; High cost ; Gap between planning and implementation.

Implementing program and performance budgeting in Canada :

Canada's 2024 budget, entitled "Justice for Every Generation", is a practical example of the application of program and performance budgeting concepts. This budget is structured around three main themes:

- Building more housing: The specific objective is to build 3.87 million new homes by 2031.

- Reducing the cost of living: Through specific programs such as the National School Lunch and the new Canada Disability Benefit.
- Grow the economy in a way that is shared by all: By focusing on attracting investment, increasing productivity and supporting innovation.

This approach reflects a clear shift from a focus on traditional spending items to programs with specific objectives and measurable results, which is the essence of the concept of program and performance budgeting.

Analyze Canada's current fiscal performance (2023-2025):

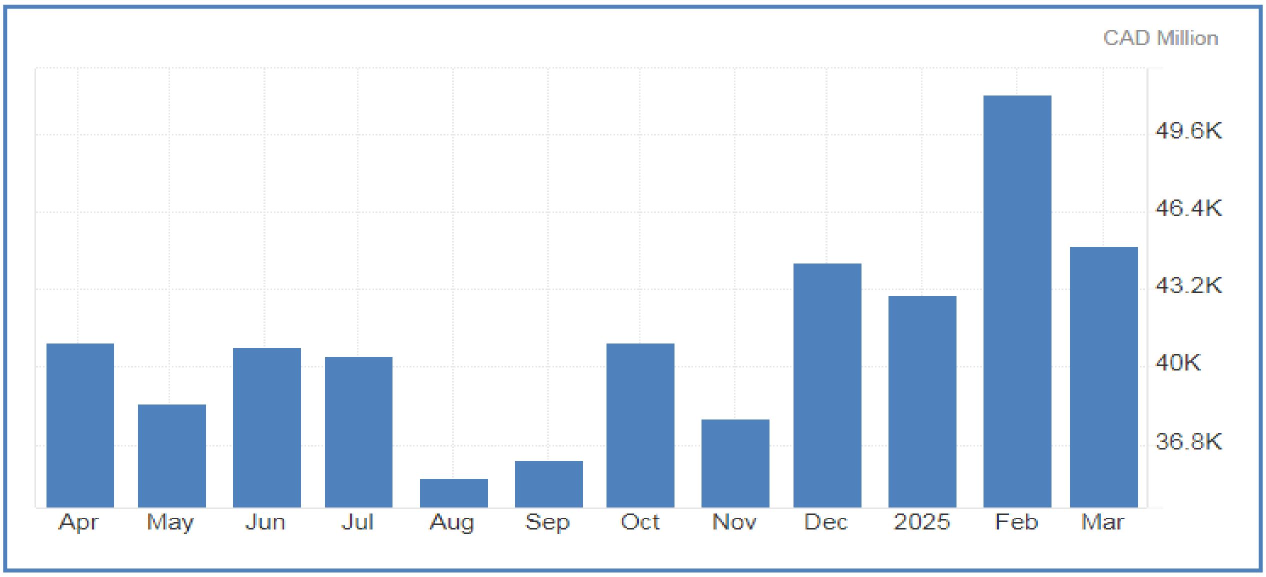
Reports indicate that Canada's fiscal performance has been better than expected in recent years, with higher-than-expected revenues due to higher inflation and economic growth. However, Canada faces significant economic challenges, not least the divergence of its economic performance from that of the United States. On the other hand, Canada has the lowest net debt-to-GDP ratio in the G7. Nevertheless, the Canadian government continues to strive to reduce the budget deficit, with the goal of bringing it down to 23.61 billion C$ in fiscal 2024-2025, and plans to achieve a budget surplus by fiscal 2027-2028.

- Government spending:

Government spending in Canada decreased to 547614 million C$ in the first quarter of 2025, from 548051 million C$ in the fourth quarter of 2024. Government spending in Canada averaged 304805.37 million C$ from 1961 to 2025, reaching a record high of 548051.00 million C$ in the fourth quarter of 2024.

- Government revenues: Government revenues in Canada declined to C$44,977 million in March 2025, from an all-time high of 5,247 million C$ in February, and an increase of 5.9 billion C$, or 15.2%, from March 2024. Tax revenues increased by 5.6 billion C$, or 19.1%, compared to the same period in 2023-24, mainly due to higher corporate income tax revenues. The March 2025 results also reflect a significant increase in import tariffs due to retaliatory measures in response to US tariffs.

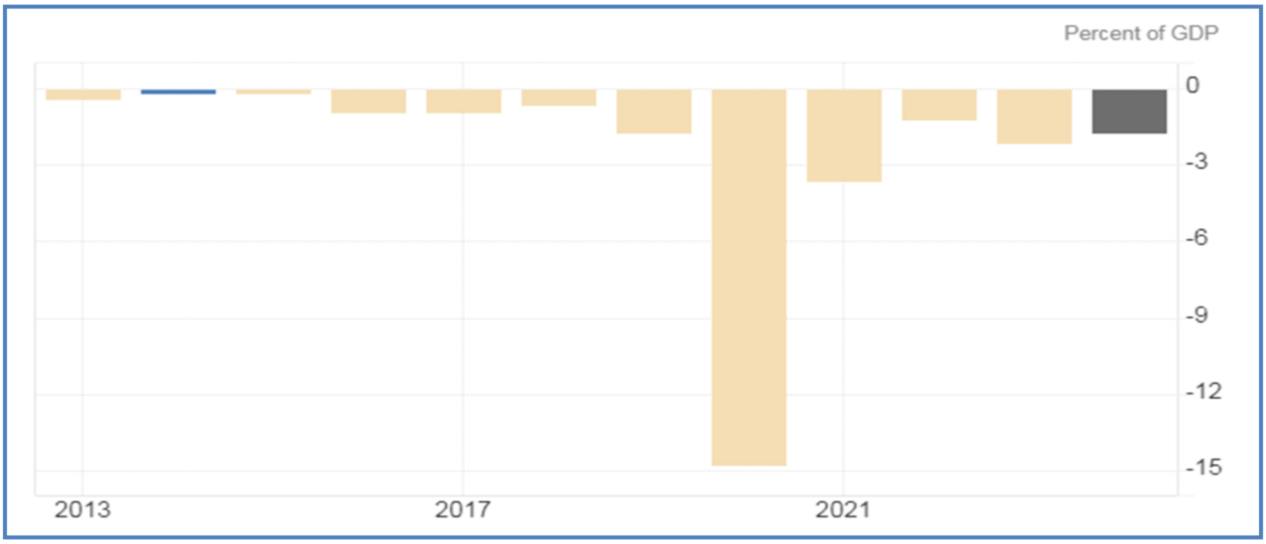
Fig (02): Government revenues, April 2024-March 2025



Source: Department of Finance Canada

- Budget balance: The budget balance deficit for 2024-2025 was 43.2 billion C$ (an improvement on 50.9 billion C$ in 2023-2024), thanks to higher corporate tax revenues (+5.9 billion C$ in March 2025), lower program spending (-3.2 billion C$) and lower public debt costs (-0.3 billion C$). The ratio of the Canadian government budget deficit to GDP can be summarized in the following figure:

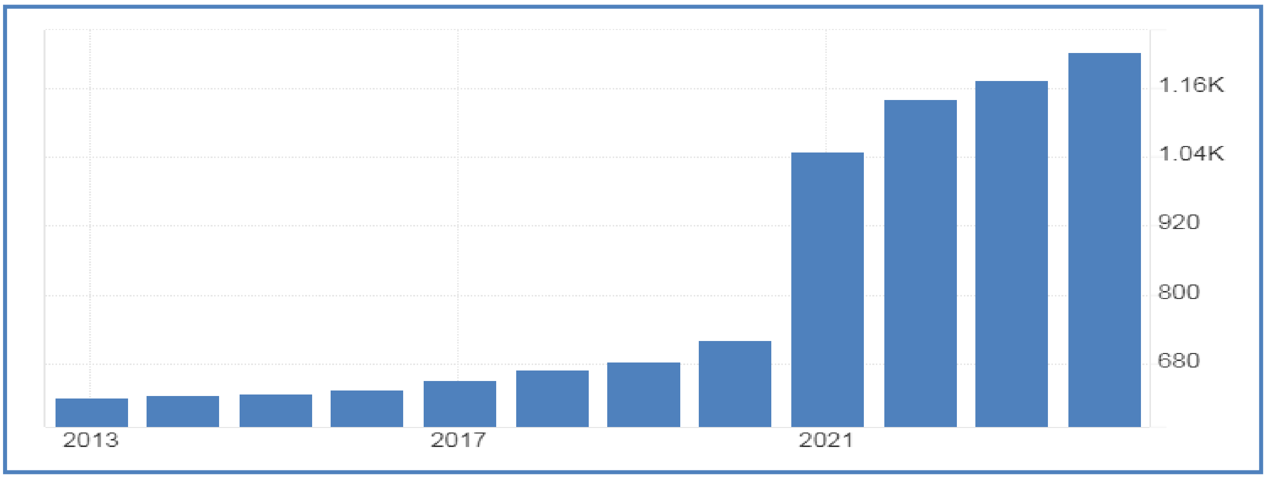
Fig (03): Budget Balance to GDP (2013-2024)



Source: Department of Finance Canada

- Government debt: Canada's government debt increased to 1223.62 billion C$ in 2024 from 1173.01 billion C$ in 2023. Canada's government debt averaged 374.40 billion C$ from 1962 through 2024, reaching an all-time high of 1223.62 billion C$ in 2024.

Fig (04): Canada's government debt from 2013-2024



Source: Department of Finance Canada

Success factors of the Canadian experience and its applicability in Algeria:

The adoption of program and performance budgeting in Canada is a sophisticated system that aims to link the allocation of resources to the actual performance of government programs in order to improve efficiency and achieve the government's strategic objectives. Recent reports indicate that Canada's financial performance has been better than expected in recent years, as shown above. Thus, we can summarize the most important success factors from the Canadian experience that can be adopted by Algeria in implementing program and performance budgeting. Below:

- Providing adequate financial data: The system provides management with detailed financial data that helps identify the productive constraints and limitations facing the business unit, enabling it to address these issues and achieve objectives more effectively.

- Focus on spending results: Program and performance budgeting focuses on the results of public spending and links them to objectives, improving management's ability to measure the effective use of financial resources and achieve desired results.
- Improved accuracy of accounting measurement: The new system helps to improve the accuracy of accounting measurement for program and performance budgeting, enabling financial and administrative performance to be assessed more objectively and reliably.
- Support for decision-making: By providing measurable performance indicators, the system helps to evaluate program implementation and analyze variances, enabling decision-makers to better direct resources and improve financial and administrative control.
- Improved financial information system: The adoption of program and performance-based budgeting has resulted in the development of an integrated financial information management system, which ensures the regulation of expenditure and the optimal use of resources.
- Improved governance and transparency: The system helps to control public spending and minimize financial risks by linking funding to performance, supporting good governance and strengthening accountability.

2.2.4. **Empirical Evidence:** Empirical investigations into the effectiveness of PBB have produced mixed but largely encouraging results. Several studies provide quantitative evidence on the performance improvements attributable to PBB: (Ramil Abbasov, 2025, p 61)

- Fiscal Discipline: Johnson et al. (2015) analyzed a sample of 30 public agencies and found that those which implemented PBB experienced an average reduction in budget variances by approximately 12% - 15%. This finding is supported by additional research from U.S. agencies that reported a decrease in fiscal discrepancies, suggesting that PBB can contribute to more disciplined spending practices.

- Operational Efficiency: In a study of 40 agencies, Carter and Zhang (2017) demonstrated that the adoption of PBB was associated with improvements in key operational metrics, such as reduced service delivery times and lower cost per unit of service. Their analysis revealed that agencies experienced an 8% - 12% improvement in these efficiency metrics, which indicates that performance measurement can drive process enhancements and cost savings.

- Transparency and Accountability: Enhanced reporting mechanisms are a hallmark of PBB systems. Research by Joyce and Kim (2010) noted that agencies employing PBB reported up to a 25% increase in the frequency and detail of performance reports. This improved transparency has been linked to greater stakeholder confidence and accountability, as evidenced by higher satisfaction ratings in internal and external audits.

- Meta-Analytic Insights: A meta-analysis by Smith and Li (2018), which aggregated findings from over 50 studies, reported that PBB adoption, on average, resulted in a 10% improvement in service outcomes across diverse governmental contexts. However, the analysis also highlighted considerable variability, underscoring the influence of contextual factors such as organizational size, governance structures, and data quality.

- Moderating Factors: Garcia et al. (2016) found that the quality of performance data plays a critical moderating role in the success of PBB. Agencies with robust data collection and management systems exhibited more significant improvements, suggesting that technical capacity is a key determinant of PBB effectiveness.

3. Prospects for Applying Program Budgeting and Performance-Based Approaches to Fiscal Discipline and Budget Deficit in Algeria:

Fiscal discipline is inherently linked to the policy of rationalizing public spending, as it serves as a control mechanism that ensures public expenditures remain within predefined limits and align with national priorities. This discipline acts as a safeguard against wasteful and unplanned government spending, providing a framework for rational financial governance. When implemented effectively, fiscal discipline enforces constraints on government expenditures through a set of fiscal rules and performance benchmarks. One critical indicator is the ratio of public expenditures to public revenues; when expenditures outpace revenues, particularly when revenues are insufficient to cover total spending, it reflects a breakdown in fiscal discipline. This imbalance undermines efforts to rationalize spending and contributes directly to the expansion of the budget deficit.

Ideally, public revenues should fully cover public expenditures, with a surplus remaining for reinvestment. The existence of such a surplus demonstrates financial prudence. Furthermore, the level of public debt relative to GDP serves as another important benchmark for fiscal discipline. The Maastricht Treaty, for instance, sets a ceiling of 30% for this ratio in many countries. Exceeding this threshold signals a lapse in fiscal discipline and correlates negatively with spending efficiency and budgetary control. Fiscal discipline is therefore broader than budgetary control; it encompasses macro-level constraints on aggregate financial metrics, including revenues, expenditures, and borrowing.

Thus, fiscal discipline reflects a government's capacity to restrain excessive public spending. One of its core objectives is budgetary control through enhanced efficiency and effectiveness of public expenditures, minimizing reliance on borrowing or monetary expansion, and safeguarding foreign reserves.

In this context, the application of program and performance-based budgeting in Algeria offers several promising avenues:

- Transparency and Accountability: Program budgeting provides a transparent depiction of spending priorities, linking each appropriation to specific programs and anticipated outcomes. This ensures that no expenditures are made without clear justification, thereby fostering accountability.

- Legal and Institutional Framework: Organic Law 18-15 on Finance Laws supports the implementation of performance-based budgeting by granting greater flexibility to program managers. These officials are held accountable for achieving predetermined objectives and must report on program performance using appropriate indicators. Article 33 of Law 18-15 allows for the transfer of funds within programs of the same ministry through presidential decrees, based on joint reports from the ministers of finance and the concerned sector. Transfers between ministries are also possible but are capped at 20% of the original appropriation and require parliamentary notification.

- Unified Budgeting System: One of the key provisions of Organic Law 18-15 is the unification of operational and capital budgets. This reorganization groups state expenditures according to tasks and objectives, aligning with international best practices, particularly the functional classification system proposed by the International Monetary Fund.

- Closing the Gap Between Planned and Actual Expenditures: The primary goal of adopting performance-based budgeting is to reduce the discrepancy between projected and actual spending. This requires accurate forecasting and a strong commitment to budget execution as approved by the legislature. Performance-based budgeting emphasizes outcome monitoring and enhances public spending efficiency, thereby contributing to the reduction of Algeria's budget deficit. Article 85 of Organic Law 18-15 subjects budget execution to administrative, judicial, and parliamentary oversight.

- Performance Control: Implementation of performance-based budgeting demands a shift toward results-oriented management. This involves evaluating efficiency, cost-effectiveness, and the degree to which allocated resources meet established objectives. Performance audits, required by the law, enable the government to assess whether programs deliver expected outcomes. The reform's core objective is to transition from traditional compliance-based control to performance-oriented evaluation using standardized performance indicators.

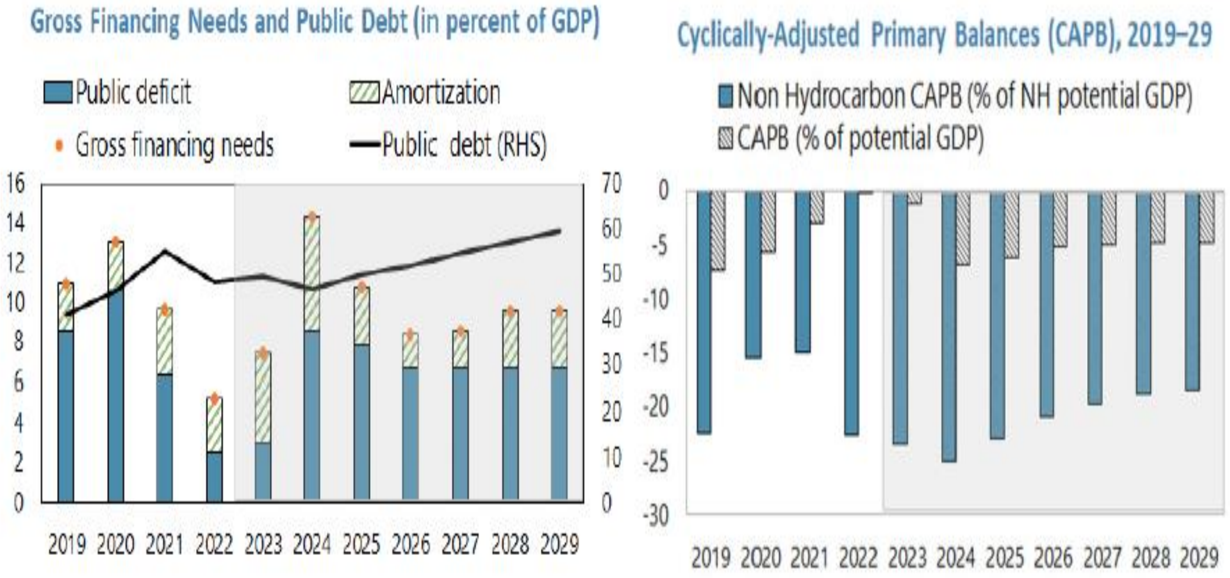
- Medium-Term Budgetary Framework (MTBF): The reform also introduces an MTBF under Organic Law 18-15, providing a rolling three-year financial planning horizon that covers revenues, expenditures, budget balance, and public debt levels. Executive Decree No. 20-335, dated November 22, 2020 (Article 4), outlines the framework's goals, which include:

- Promoting macroeconomic stability and budgetary discipline;
- Improving resource allocation based on strategic priorities;
- Rationalizing expenditures;
- Ensuring sustainable financing and evaluating fiscal capacity.

- Reforming Performance Measurement Practices: Previously, Algerian institutions often equated performance with the percentage of allocated budget consumed, without considering the actual outputs achieved. This misguided approach led institutions to prioritize expenditure volume over efficiency, fueling inappropriate demands for increased future funding. Program budgeting seeks to reverse this trend by tying appropriations to tangible performance results.

The fiscal outlook for Algeria presents significant challenges. The projected budget deficit for 2025 follows an already substantial deficit of 8.5% of GDP in 2024, with the non-hydrocarbon deficit reaching a staggering 27% of GDP. These deficits have depleted the Revenue Regulation Fund (FRR) and will constrain fiscal policy options in future years. Financing such high deficits risks straining the domestic banking system, crowding out private credit, and increasing reliance on unsustainable alternatives, such as using state-owned enterprises' financial resources. IMF projections indicate a continued rise in the public debt ratio, heightening Algeria's debt vulnerability. Fluctuating hydrocarbon revenues further exacerbate the risk of fiscal instability in the medium term and Figure 2 shows this.

Fig (05): Projections of Public Debt and Budget Deficit in Algeria through 2029



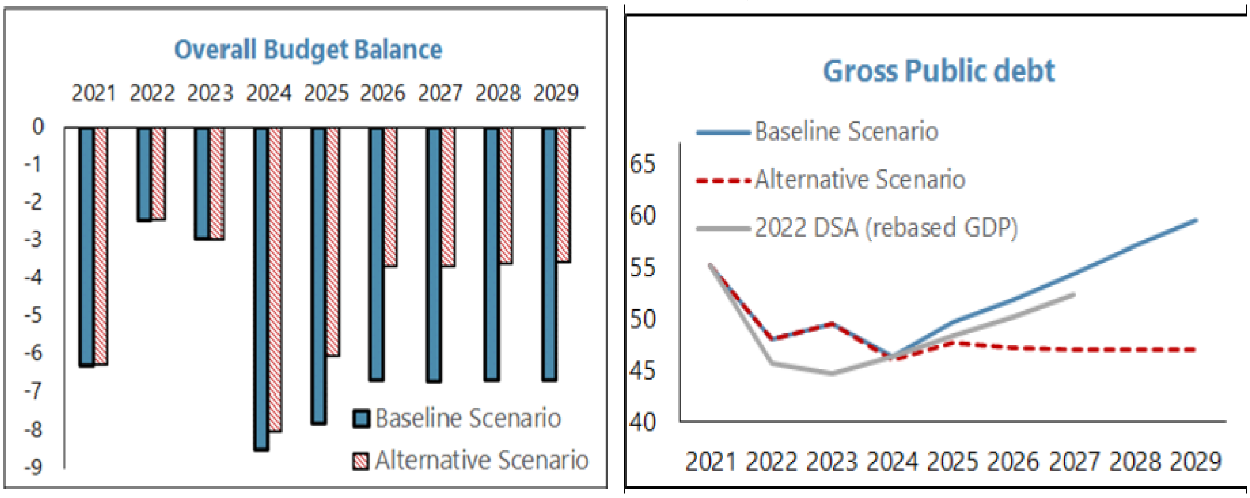
Source: International Monetary Fund, Algeria Country Report No. 24/88, April 2024, p. 10

In contrast, a gradual shift toward budget resilience could rebalance fiscal policy and stabilize the debt ratio by 2026. Such a transformation would require both revenue-enhancing and expenditure-containment measures, including:

- Phasing out inefficient tax expenditures;
- Publishing multi-year plans for public employment and wages;
- Replacing generalized subsidies with targeted transfers;
- Reinforcing fiscal discipline to rebuild FRR savings and create fiscal space for responding to economic shocks.

These measures would reduce overall financing needs, lessen pressure on the banking sector, and promote private sector access to credit. Anchoring fiscal policy on a stable debt trajectory also provides a basis for a robust medium-term fiscal strategy.

Fig (06): Forecast of the Impact of Additional Fiscal Measures on Fiscal Balances and Public Debt in Algeria (2021–2029, % of GDP)



Source: International Monetary Fund, Algeria Country Report No. 24/88, April 2024, p. 11

Further priorities include:

- Continuing the implementation of public finance management reforms through program budgeting, with 2023–2024 serving as transitional years;
- Preparing a comprehensive financing plan and enhancing cash and debt management practices to strengthen budget transparency and execution;
- Improving the regulatory framework of debt markets as part of Treasury reforms.

Finally, Algeria must adopt an integrated approach to fiscal risk management by:

- Analyzing potential impacts of risks on the budget;
- Preparing contingency plans and proposing mitigation measures;
- Publishing a financial risk statement, starting with a report submitted to the Council of Ministers.

Conclusion:

This study has demonstrated that Algeria’s persistent fiscal vulnerabilities—primarily stemming from its dependence on hydrocarbon revenues and structurally rigid public spending—necessitate a shift toward modern budgetary practices rooted in fiscal discipline and performance-based management. The implementation of the Organic Law 18-15 on Finance Laws and Law 23-07 on public financial management signals a pivotal step toward aligning Algeria’s budgeting system with international standards.

The findings suggest that adopting a program and performance-based budgeting approach can significantly enhance fiscal discipline by linking expenditures to measurable outcomes, optimizing resource allocation, and prioritizing strategic spending. This approach addresses past inefficiencies resulting from the traditional itemized budgeting model, which focused on fund consumption rather than performance and impact.

Moreover, the study underscores that achieving fiscal sustainability in Algeria requires not only improving budget planning and execution but also insulating public finances from oil price volatility. This can be accomplished through progressive fiscal rebalancing, rationalizing public expenditures, diversifying revenue sources, and enhancing financial transparency—particularly through digitalization.

The medium-term fiscal framework, supported by performance indicators and accountability mechanisms, provides a practical path forward. If properly implemented, these reforms could gradually stabilize the public debt ratio, reduce budget deficits, and create the necessary fiscal space for absorbing economic shocks and sustaining development efforts.

In conclusion, Algeria's transition to a program and performance-based budgeting model, underpinned by strong fiscal discipline, presents a strategic opportunity to modernize its public financial management system. It is essential for enhancing the efficiency of public spending, reinforcing macroeconomic stability, and ensuring the long-term sustainability of the national budget.

Recommendations:

Based on the findings of this study, the following recommendations are proposed to strengthen the implementation of program and performance-based budgeting and to reinforce fiscal discipline in Algeria:

1. Accelerate the implementation of Organic Laws (18-15 and 23-07) by ensuring their operationalization across all public institutions, accompanied by detailed regulatory texts, training programs, and institutional restructuring to support results-oriented management.
2. Develop a comprehensive medium-term fiscal framework (MTFF) that anchors fiscal policy on public debt stability, and integrates performance indicators to evaluate the efficiency and effectiveness of public spending.
3. Enhance financial transparency and accountability by adopting digital tools for budget preparation, execution, and monitoring, which will help reduce leakages, minimize implementation costs, and increase citizen trust in fiscal institutions.
4. Rationalize public expenditures by eliminating inefficient spending, prioritizing high-impact programs, and introducing systematic performance evaluations linked to resource allocation decisions.
5. Diversify government revenue sources beyond hydrocarbons to ensure sustainable financing of public services and development projects, especially through tax reform, expanding the tax base, and improving tax administration.
6. Strengthen the capacity of public institutions through technical training, institutional audits, and improved data systems to ensure that program managers are well-equipped to handle performance-based budgeting and reporting.
7. Adopt a risk-based approach to fiscal planning, including the development of contingency plans and the publication of fiscal risk reports, to enhance resilience to external shocks and economic volatility.
8. Ensure political commitment and inter-ministerial coordination to promote the cultural and institutional shift required for the transition from traditional budgeting toward a performance-based model.
9. Algeria can benefit from international experiences, such as Canada's experience in adopting a program and performance budget, through a gradual process, starting with specific programs and then generalization, with the need for political accompaniment of this model and its flexibility with economic and social changes.
10. The adoption of program and performance budgeting in Canada is a sophisticated system that aims to link resource allocation to the actual performance of government programs in order to improve efficiency and achieve the government's strategic objectives. This system is based on a set of basic factors that can be adopted in the Algerian system. These factors include Providing adequate financial data; focusing on spending results; improving the accuracy of accounting measures; supporting decision-making; improving the financial information system; and strengthening governance and transparency. Improving governance and transparency.

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