

“Determinants of Public Expenditure Growth and Structural Drivers of Government Spending in the Lebanese Economy”

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Abstract

Public expenditure growth is a critical aspect of fiscal policy, particularly in economies facing structural weaknesses and recurrent crises. Lebanon provides a compelling case study, having experienced prolonged fiscal imbalances, high public debt, and political instability that have strained government spending capacity. Existing literature often focuses on econometric evaluations of expenditure effects on growth or deficits, leaving a gap in descriptive, theory-driven analyses that explain the structural drivers of spending. This study addresses this gap by adopting a theory-driven descriptive approach to examine the determinants of public expenditure growth in Lebanon from 2007 to 2019. The analysis integrates classical fiscal theories, including Keynesian stabilization principles, Wagner's Law, and Baumol's cost disease, with detailed public expenditure and revenue data sourced from official government records. Descriptive tables and trend figures are used to illustrate the evolution, composition, and structural shifts in government spending. The results reveal that total public expenditure nearly doubled from 12,587 to 25,890 billion LBP, with public sector wages remaining rigid at 28–33% of total spending, debt servicing decreasing from 39.2% to 26.4%, and transfers to Electricity du Liban rising sharply from 11.7% to 16.4%. Revenue growth of 122% was insufficient to match expenditure expansion, producing fiscal deficits fluctuating between -6.58% and -15.60% of GDP. The study's technical novelty lies in combining classical fiscal theories with descriptive trend analysis, providing clear insights into structural expenditure pressures without econometric modeling. Findings highlight that rigid current obligations and crisis-related spending are the main drivers of fiscal imbalance, offering policymakers actionable understanding for sustainable fiscal planning.

Keywords: Public expenditure, Lebanon, Wagner's Law, Keynesian theory, Baumol's cost disease, fiscal sustainability

1. Introduction

Increase in government spending has become a hallmark of the current economies in the globe [1]. The governments are becoming more active in delivering public services, economic activity, social needs, and economic shock responses [2]. This increase in government expenditure is evident especially in developing and crisis-prone economies where government intervention is often necessary to an even larger degree in order to stabilize the market, cushion people at risk, and sustain the minimal governmental functions [3]. On the one hand, the government spending may contribute to the development and social welfare; on the other hand, the ongoing increase in the government spending also poses the problem of fiscal concerns associated with sustainability, efficiency, and long-term economic stability [4].

The mix of economic, social, demographic, and institutional factors increases over time and leads to the growth in public expenditure [5]. The economic growth usually results in an increased need of social infrastructure, education, medical treatment, and administration services [6]. Social pressures such as increasing demands on welfare support and quality of their service also add to the growth of expenditures [7]. Demographic developments like population growth, urbanization and aging societies enhance the role of the government in the social protection and service delivery [8]. Also, institutional factors, including governance arrangements, political interests, and extent of state duties condition how and why governments increase their expenditure [9]. Combined, these forces form the long-term propensity of increased public spending particularly in economies with structural vulnerabilities or more frequent economic shocks [10].

There are a number of economic theories which give conceptual explanations of the continuous rise in the amount of public expenditure [11]. The Keynesian theory focuses on government expenditure as a means to stabilize economic activity during down turns and in this respect it is argued that government spending tends to increase in reaction to economic crises and the shortage of demand [12]. According to Wagner Law, the larger and more complex an economy is, the larger the role of the state becomes and thus, there is a systematic growth in the level of public spending in comparison with national income [13]. The cost disease by Baumol illustrates that, labor-intensive services in the government, including education, health, and administration, have an increasing cost overtime, as their productivity gains are extremely low, hence driving the government spending upwards without necessarily increasing service provision [14]. The theories provide interesting constructs on how expenditure growth can be described without necessarily testing or modelling them.

These issues are very relevant especially in the Lebanese economy. Lebanon has been facing a period of protracted fiscal strain, structural vulnerability, instability in politics and one of the worst economic disasters in its contemporary history. Decades of fiscal imbalance, poor management of finances by the populace, governance issues and frequent economic shocks have put mounting pressure on government expenditure. Economic needs have not been the only factors that have dictated the public expenditure; social demand, as well as the demographic pressures and institutional constraints have also

contributed. Within these kinds of frail context, it is necessary to comprehend the reasons behind the increases in public spending and the nature of the structural drivers behind these increases in order to inform the debate on fiscal policy and to aid the more sustainable approach to public finance.

Although there is an extensive international literature on the topic of public expenditure, much of the research on the topic to date is conducted in the subject of quantitative and econometric measures of the impacts of government expenditure on economic growth, inflation, or fiscal balance. Although these studies are insightful, they tend to disregard descriptive and theoretically driven analysis of the structural forces behind expenditure growth especially those experienced in crisis prone economies of developing countries. In Lebanon, where the study is being carried out, the literature that combines classical theory of expenses and descriptive studies on expenditure patterns is limited. Consequently, there exists a lack of knowledge on how the structural drivers long-term work towards the growth of the public expenditure in Lebanese context.

The study will address this gap by analyzing the determinants of the growth of public expenditure and the structural forces of government spending in Lebanon. Instead of using econometric methods, the research is a descriptive one based on a theory. It applies the data on public expenditure, descriptive tables, and trend analysis to discuss the effects of economic conditions, institutional, and structural characteristics on the spending behavior across time. The research aims at offering a simple and accessible clarification of the growth of public expenditure in Lebanon by the association of the observed trends of expenditure with the theoretical perspectives.

The rest of the paper will be structured in the following. The following section gives the theoretical background that supports the aspect of growth of public expenditure. This is then followed by an examination of the trends of the public spending in Lebanon based on descriptive evidence. These findings are interpreted in the discussion section as per the theoretical framework, and a concluding section asserts major insights and observations that could be applicable in policies.

2. Literature Review

2.1 Public Expenditure, Economic Growth, and Debt Sustainability

Ciaffi et al.,[15] described the study to analyse the impact of government spending on output and sustainability of the public debt by allowing both linear and non-linear dynamics to be understood based on the various regimes of debt. The authors used panel data of 14 OECD countries between 1981-2017 to present the Local Projections (LP) model in combination with the Blanchard-Perotti identification strategy to isolate exogenous fiscal shocks, and formulated a smooth transition LP model to explain non-linearities. The research obtained strong evidence that the government spending multipliers are near unity in the linear contexts and in the case of high-debt levels, they are larger whereas in the situation of expansionary fiscal shocks, the same multiplier brings down the debt-to-GDP ratio, even with the inclusion of expectations. The major limitation, however, is that it relies on assumptions of identification, the use of limited OECD sample, and may be sensitive to specification of debt-threshold and expectation measures.

Sosvilla-Rivero et al.,[16]proposed study aimed at empirically investigating the short-run and long-run impacts of public expenditure on the growth of the European Union countries by differentiating the expenditure categories. The authors constructed a growth model with an addition of public spending variables using the annual panel data on 28 EU countries to enhance the models of dynamic relationships and long-term relationships through the use of Autoregressive Distributed Lag (ARDL) panel framework over the 1995-2022 period. The research has reached the findings that the elements of public expenditure have a heterogeneous influence on economic growth in terms of magnitude and timing in both short and long term. There is however, a major weakness, in that the ARDL framework can be model specification sensitive and aggregation of expenditure types may lead to inconsistencies in the analysis and endogeneity as well as structural variations between EU economies may not be fully assisted.

2.2 Public Spending and Inflationary Dynamics

Mostefai & Bouberima,[17]hypothesized to investigate the effect of the use of the public expenditure on the inflation rates in Algeria based on the annual time-series data on 2000-2023 available with the World Bank. The authors have formulated an empirical model grounded on the Autoregressive Distributed Lag (ARDL) bounds testing model in order to capture the short- and long-term relationships between public spending and inflation. The research reached the evidence of the positive impact of lagged public spending on inflation in the short-run, quick adjustment of the short-run equilibrium, and that the inflationary effect of public spending is statistically significant in the long-run. The major limitation, however, is that it

focuses on one country and does not have much control over structural shocks, which can limit the generalizability of the policy recommendations.

Tariq et al.,[18]proposed a study to contest the traditional perspective that when government size increases it is always inflationary as it seeks to explain how government expenditure and inflation are nonlinearly related. The authors used panel data of 10 MENA countries between the year 1980 and 2019 to construct a dynamic panel threshold model and introduced the government final consumption expenditure as a share of GDP to identify regime-specific impacts. The research got good results of a nonlinear relationship, where an optimal threshold of 12.46% is realized, below which, the government size has a negative effect on inflation and above, the government size is inflationary. The findings will offer valuable fiscal policy implications in the MENA region. Nevertheless, one of the major limitations is the small sample size regionally and the possibility of threshold estimates to be sensitive to model specification and cross-country structural variations.

2.3 Nonlinear and Asymmetric Effects of Government Expenditure

Ziaei,[19]examined the non-symmetric short and long-run impacts of public spending on energy-related R&D which includes renewable, non-renewable and energy efficiency on CO2 intensity in selected countries of OECD. The authors suggested the Panel Nonlinear Autoregressive Distributed Lag (Panel-NARDL) method as the 10 OECD economies panel data (3 period 1990-2020) include the asymmetric and dynamic relationships between R&D spending and emissions. This research obtained strong evidence that it can be seen that higher spending on renewable energy R&D will reduce CO2 intensity in the long term, whereas less spending on fossil fuel R&D also lessens the emissions in the long-term, meaning that effective allocation of R&D is current. Nevertheless, one of the major weaknesses is that short-term impacts are contrary to the long-term results, as well as the sample of the country might be insufficient to generalize the results.

Hu & Wang,[20]suggested to investigate the question of whether public health spending is a factor in economic growth in the OECD countries when economic conditions vary. The authors came up with a nonlinear dynamic panel threshold model based on the data of 33 OECD countries between 2001-2017 to explain a regime-specific effect of health spending. The research attained the obvious finding that the negative ramification of public health spending on growth is attained when household consumption, wages, and physical capital investments are less than certain thresholds, whereas the positive impacts enhance growth when they are beyond certain thresholds, which are more positive as economic conditions are improved. Nevertheless, the apparent weakness is that the threshold estimates and level of significance can be subject to the model specification and measurement of the variables and therefore, the results are not likely to be generalized to varying institutional and economic settings.

2.4 Fiscal Rules, Institutional Quality, and Spending Efficiency

Menguy,[21]hypothesised to assess the efficacy of first-generation expenditure principles in fostering fiscal discipline and economic action through identification of rules that restrict the magnitude of public expenditure, as compared to the rules that restrain its expansion rate. The analysis created an analytical and empirical comparison on potential economic growth of countries and the ratio of public expenditure to the GDP. The research has reached an insight of using a low percentage of public spending in GDP as being more appropriate to the economies with low growth potential or those that have high expenditure ratios, and the use of a low variance in expenditure is more appropriate in high-growth economies that have low expenditure levels. It also indicated that the level-based rules would be more supportive of economic activity. The major limitation, however, is that variation-based rules will become an unwanted hindrance to growth, particularly in those nations whose current ratio of public expenditure is already high.

Adegboye & Akinyele,[22]proposed a study aimed at evaluating the efficiency of government expenditure in Africa and determining its major causes in uncovering the paradox of high public expenditure and low human developmental outcomes. The authors build a Stochastic Frontier Analysis (SFA) on panel data of 40 African countries, 2000-2020, to know the spending efficiency and presented an original True Fixed Effects (TFE) model to estimate the determinants of the model, including cross-sectional dependence and second-generation unit roots. The study was able to establish evidence that government expenditure has a role to play in human development, efficiency of which is determined by the size of the economy, use of natural resources and colonial heritage. Nonetheless, one of the most significant limitations is that it is based on macro-level data, which can conceal country-specific institutional and governance heterogeneity to influence the efficiency of spending.

Afonso et al.,[23]aimed at empirically looking at the relationship between the efficiency of government spending and the trust of people in national governments using a two stage empirical model. The efficiency scores of general government performance were initially presented based on Data Envelopment Analysis (DEA) and followed by panel data and instrumental variable methods with respect to 36 OECD countries in the timeframe of 2007-2019. The research realized a high level of evidence that an increase in the efficiency of the public expenditure positively and significantly relates to increased trust to the government with countries like Australia, Chile, Ireland, New Zealand, South Korea and Switzerland topping the rankings. But, the main weakness is that the effects of political economy and fiscal rules seem to be of little significance in explaining trust and the analysis can also be subject to limitations concerning the measures of trust based on perceptions and country institutional heterogeneity.

2.5 Demographic and Structural Drivers of Government Spending

Tamai & Wang,[24]suggested the following analysis of the effect of population aging on the composition of government spending, economic growth, and social welfare in democratic systems by modeling the existence of intergenerational political conflict through the development of an overlapping generations (OLG) model. The model also added the aspect of voting power as a determinant of fiscal results, whereby the older societies are more likely to change the respective communal funds on investment into welfare by an increase in the elderly political power. The major result of the study was that these reallocations undermine economic growth and social wellbeing in a democratic setting, but that longer lifespan might counterbalance these impacts partially by promoting saving, accumulation of capital, and mutual benefits to survival. The biggest disadvantage however is that the conclusions depend on a lot of assumptions on the elasticity of political power and the stylized demographic behavior, which can hamper real life implementation in various democratic economies.

2.6 Regional and Country-Specific Evidence Relevant to Developing and Crisis-Affected Economies

Mohamud & Abdulle,[25]proposed to investigate dynamic impact of government spending, capital formation, foreign direct investment and population growth on the economic growth in Somalia by constructing an empirical framework of Keynesian theories, endogenous growth theories, and Neoclassical theories. Based on the yearly data of 1990-2022, the authors have proposed the innovation of the ARDL bounds testing method to demonstrate the short- and long-term relationships and have performed the Granger causality methodology to depict directional relationships. The analysis was successful in getting evidence that the government expenditure and population growth have a positive impact on the long-run growth, whereas short-term findings indicate inefficiency of the government spending and the significant contribution of capital formation and demographics. One of the disadvantages, however, is the limitation in data quality, the weakness of the Somali economy, and the low performance of FDI which can influence the strength of the results and its generalizability.

Abou Ltaif et al.,[26]offered to explore the determinants of the shadow economy at the global level, and study the manifestation of these factors in Lebanon in the context of its current financial and economic crisis. The authors proposed a contextual analysis between macroeconomic breakdown, currency depreciation, fiscal deficits and increasing informality by creating a dual methodological approach that involved a comprehensive literature review as well as a country-specific case study. This paper arrived at a subtle appreciation of how the growth in the shadow economy increases the risks to the formal sector through resource diversion, undermines transparency, and subverts economic stability, and provides the policy-relevant information on governance restructuring. The main weakness, however, is that the analysis is dominated by qualitative and descriptive components, which do not provide the possibility to quantify the findings empirically and to draw causal links.

2.7 Summary of Literature and Research Gap

The available literature has extensively concentrated on the issue of public expenditure, both empirically and econometrically, in terms of its impact on economic growth, inflation, debt sustainability and institutional efficiency among various nations and regions [23] [15]. Numerous of them are based on sophisticated modelling and cross-country panel data, especially to developed or OECD economies, to describe the results of fiscal policies in different economic conditions. Nonetheless, there has been comparatively little focus on the theory-guided descriptive research to explain this increasing trend in public spending, particularly in this crisis-ridden economy like Lebanon. In addition, it is under-researched as to how classical expenditure theories are combined with descriptive trend evidence. The present study attempts to fill this gap by synthesising theoretical observations and descriptive statistics of the Lebanese public expenditure in an attempt to determine the structural determinants of the same.

3. Data and Analytical Framework

The study will embrace a theory based descriptive approach to study the determinants of growth of public expenditure and the structural factors that influence government spending in the Lebanese economy. This part aims at providing a clear description of the data used, describing the major variables of expenditure by the masses and the description of the descriptive analysis method applied in the research. Instead of using econometric estimation or causal testing, the methodology focuses on open presentation and explanation of patterns of expenditure over time. The method is especially appropriate in explaining long run fiscal behavior in an economy with structural flaws, institutional limitations and long-term economic instability.

3.1 Data Sources and Coverage

The discussion will be founded on the secondary data referring to the expenditure of the population in Lebanon, which will be gathered using the official national and international sources to provide valid information and results. The source of primary data will be the Lebanese Ministry of Finance that will include information on government budgets, expenditure statements, and fiscal accounts in detail. Such official publications provide a detailed account of government expenditure and give an overview of the fiscal framework and policy priorities of the state of Lebanon throughout history.

Additional information is used to supplement national data, and increase the consistency across years, especially the data related to the government finance and fiscal aggregates, relying on the Central Bank of Lebanon. Cross-checking of the expenditure data and acquisition of the standardized fiscal indicators when needed are also facilitated by the international sources such as the World Bank and the International Monetary Fund. These foreign databases offer harmonized data series that can be used to have a clear understanding of expenditure trends in a larger macroeconomic background.

The time period covered in the study is similar to the thesis period, which enables consistency between the dissertation-level research and the journal article. The period chosen is the one that covers several decades, encompassing various economic periods in Lebanon, such as the relative stability, reconstruction after the conflict, political disturbances, and more recent economic and financial crisis. This long-time frame will allow the long-term patterns of expenditure growth and structural change trends linked with variation of the economic and institutional environment to be identified.

The annual frequency of all the data employed in the study is annual. Annual data is suitable to examine the growth and structure in the public expenditure since the government budgets and fiscal decisions are normally planned and reported annually. Annual observations are also useful in providing a clear and consistent representation of expenditure trends over time without bringing volatility in the short-term which could mask structural trends.

Public expenditure figures are reported where appropriate in nominal terms, that is, they represent the values of the official fiscal accounts. Also, relative changes in spending structure over time are indicated by expenditure indicators in the form of percentages, e.g. expenditure shares or expenditure proportions. This section is not an attempt to assess actual purchasing power or price-adjusted impacts, but rather the way government expenditure develops and the way it varies in terms of its composition in various periods. At this point no analysis or interpretation of results is done; it is highly data descriptive and coverage oriented.

3.2 Definition of Public Expenditure Variables

The concept of the public expenditure in this study signifies the total amount that the Lebanese government uses to meet the economic, social, and administrative mandates. Total public expenditure is the value of the sum of outlays of the government that are measured in the official fiscal accounts of every year of the study period. This variable gives a general understanding of the size and growth of the government expenditure and forms the basis of the descriptive analysis.

Complete public consumption is further broken down into two general items current (or recurrent) expenditure and capital expenditure. Current expenditure entails expenditure on day-to-day operation of the government. The category usually includes wages and salaries of the public sector workers, transfers and subsidies, payments of interest on the state debt, and spending by the government on goods and services needed to carry out regular government business. Current expenditure indicates the immediate fiscally binding activities of the state and usually comprises the majority part of total government expenditure particularly in economies where there are a lot of people employed by the government and high social burdens.

Capital expenditure is the term used to refer to government expenditure on the long-term investment towards economic and social infrastructure. This incorporates spending on government projects, infrastructure, education infrastructure, health infrastructure and other investment initiatives to contribute to the growth and development in the long term. Capital expenditure is mostly linked with productive investment and it signifies the government involvement in creating and sustaining the physical and institutional infrastructure of the economy.

The study, where the data is available, also takes into consideration functional or sectoral classifications of the public expenditure. These categories categorize expenditure by its purpose, which includes social services, economic services, administration and other functions of the government. A review of government spending by purpose serves to demonstrate how the government priorities change over time and how resources are distributed between the various areas of government responsibility.

All the tables that will be introduced in the following section of the study are supposed to depict a certain aspect of the public expenditure. There are tables showing how the total public expenditure changed over time and others are devoted to the allocation of spending between current and capital expenditures. Other tables can depict the shares of expenditures or proportions of expenditures in functional areas. The visual representation of expenditure trends and structural changes is performed in figures and graphical representations thus the long-term patterns can be observed and interpreted easier. At this point, such tables and figures are specified only in descriptive terms, without a discussion and analysis.

3.3 Descriptive Analytical Approach

The analysis used in the study involves a descriptive form of analysis which is founded on the basic level of statistical presentation and trend. It is based on the utilisation of data in the form of tables, computations of percentages and the graphical analysis of changes in expenditures over time. The target is to establish the change in the pattern of public expenditure in Lebanon and to find structural features that can define the behaviour of government spending.

The analysis extensively uses descriptive tables in a clear and accessible way to present the levels of expenditures, shares, and distributions. The relative significance of various expenditure elements is presented by means of percentage measures and it is also used to indicate a shift in composition of expenditure with time. Long-term tendencies in the area of public expenditure are represented with trend figures, line graphs or bar charts, to define the time when the area expands, stays balanced, or contracts.

It should be stressed that this research is not limited to the application of econometric models, causal estimation methods, and statistical testing. There is no regressions, equations, and hypothesis testing structures. In its place, analysis is conducted on patterns and structural features of government expenditure observed. In this regard, the research takes a descriptive approach that is theory-based as opposed to an econometric estimation model.

This descriptive research approach is especially appropriate to the aims of the research. The political unrest, the institutional weakness, and the frequency of the crises in Lebanon determine the economic landscape of the country, making it difficult to use the formal modeling methods. A descriptive design lets a clear study of the expenditure behaviour without any restrictive assumptions or technical needs. The study captures insights into the underlying drivers of the growth of the public expenditure that may not be completely reflected using quantitative estimation, since it emphasises on the long-term trends and structural composition.

In addition, descriptive framework offers greater accessibility to a wide range of audience such as policy makers and readers who might not be well versed with more sophisticated econometric tools. It enables the study to articulately convey the development of government expenditure and the reasons behind some spending behavior patterns, thus making meaningful debates about the fiscal policies and policy reflections.

3.4 Linking Descriptive Evidence to Economic Theory

The analysis in this study regarding how the descriptive expenditure patterns are interpreted depends on laid down economic theories that determine how the expenditure by the government has been increasing over time. Instead of empirically testing these theories, the study makes use of them as conceptual prisms in gaining insight into trends in observed government spending.

The Keynesian theory offers an explanation of the times of the greater public spending because of the economic decline and shutdowns. In this view, governments are more likely to increase expenditure to stimulate economic processes, take care of employment and stabilize demand in economic tensions. Cases of the economic instability and social pressure in the Lebanese context can be interpreted in this regard since the spending of the government is usually increased to solve the short term economic and social demands.

Wagner’s Law provides a long-run explanation of the growth of the public expenditure as the economy grows and turns more complicated. It implies that economic growth increases the role of the state in the provision of public services, regulation and social protection. In this light, long-term increases of government expenditure are signs of structural economic and social transformation, as opposed to short-term policy decisions. The fact that greater expenditure has been observed over the years can thus be seen as a wider process of the state expansion.

The cost disease developed by Baumol can be used to understand why the expenditure on the public services would be increasing even without an increase in the services provided to the community. A large number of governmental operations, like education, medical services, and government management are labour-intensive and have low productivity improvements. Wage increases in the general economy will cause the cost of delivering these services to be higher, which will result in increased government spending. This theory is especially applicable to the explanation of a continuing increase in the current expenditure and wage-related spending.

By linking theoretical insights to these theoretical views, the study offers a systematic and conceptualized explanation of the growth of public expenditure in Lebanon. It focuses more on exposition than on measurement, which gives the analysis the chance to bring out the overtime trends of how spending behavior of governments is determined by economic, social, and institutional forces.

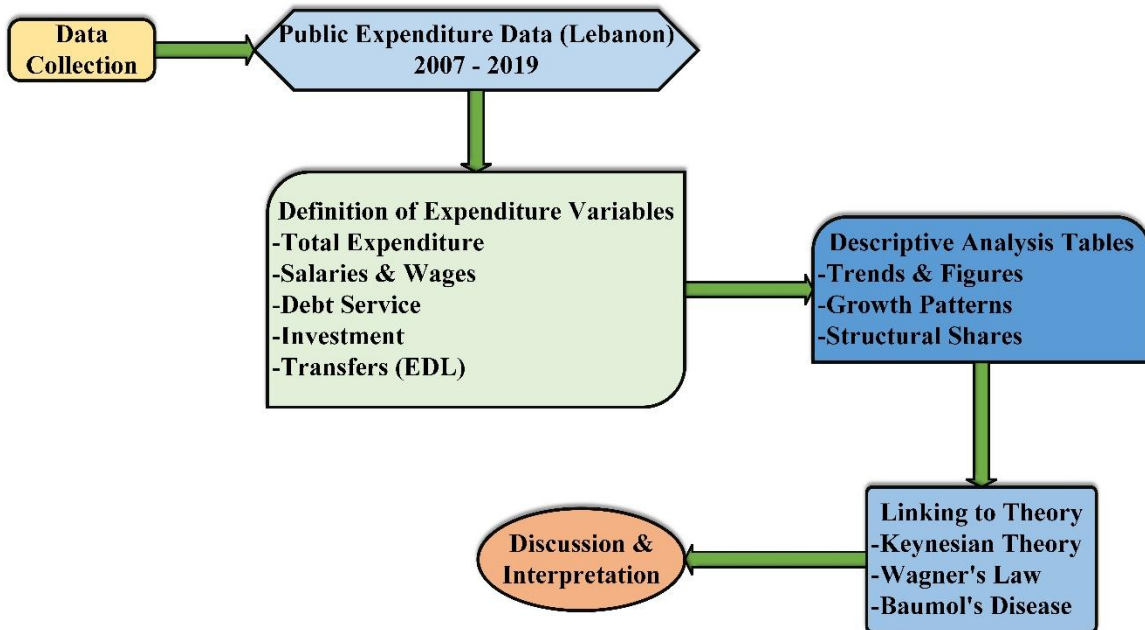


Figure 1: Flowchart of the Data and Descriptive Methodology

The first step in Figure 1 shows the investigation is gathering secondary public spending data for Lebanon from 2007 to 2019. The information is then categorised into major expenditure components, such as transfers to Electricity du Liban, public debt service, salaries and wages, total governmental expenditure, and investment expenditure. A descriptive analytical technique based on tables, trend data, growth patterns, and structural composition analysis is used to analyze these variables. Keynesian theory, Wagner's Law, and Baumol's cost disease are three well-known public expenditure theories that are then used to interpret the observed spending trends. Without using econometric estimation, this paradigm allows for a theory-driven descriptive evaluation of the structural drivers and determinants of government spending in Lebanon.

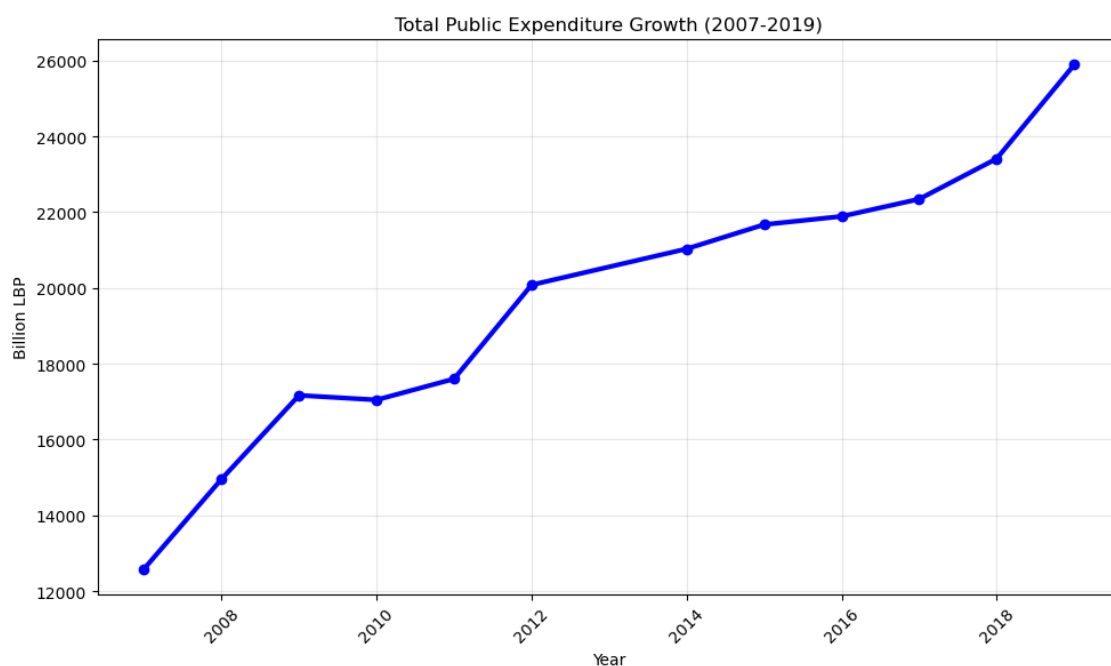


Figure 2: Evolution of Total Public Expenditure in Lebanon

Figure 2 demonstrates the trend in the total public expenditure in Lebanon during 2007-2019. The figure indicates that there has been a consistent increment in government expenditure which has risen by 12,587 billion LBP to 25,890 billion LBP in 2007 and 2019 respectively. Although there were peaks and troughs in relation to the economic and political environment, the trend in the public expenditure was broadly on the upward trend over the period, hence the constant increase in the government expenditure commitment.

4.2 Public Revenue Evolution

The public revenue in Lebanon also was on the rise during the period of study but at a low rate compared to the rate at which the public expenditure was rising. The total government revenue increased by 8, 749 billion LBP in 2007 to 19,432 billion LBP in 2019, which is a total increase of about 122 %. This growth is an indicator of revenue mobilization that has been improved despite recurrent economic % political problems.

The non-tax revenue became more significant in the generation of the total revenue. The fees and fines and other non-tax collection receipts increased to 4,832 billion LBP in 2019 compared to 2,511 billion LBP in 2007. This is a pointer of increased dependence on other sources of revenue other than conventional taxation.

Government revenue improved moderately when the measurement was in the context of economic output. The percentage of revenue to GDP rose to 26.45 % as compared to 21.51 % in 2007. During most of the period, this ratio was in the range of 23-24 %, which implied structural restriction in the development of fiscal capacity.

It is important to note that the growth in revenues was stronger after 2014 and the annual growth was averaged 7-8 %. Nevertheless, with these increases, growth in revenues was not sufficient to counter the accelerating growth in the public spending.

Table 2: Evolution of Public Revenue in Lebanon (2007–2019, billion LBP)

| Year | Total Revenue | Non-Tax Revenue | Revenue-to-GDP (%) |
|------|---------------|-----------------|--------------------|
| 2007 | 8,749 | 2,511 | 21.51% |
| 2008 | 10,553 | 2,612 | 23.50% |

| | | | |
|------|--------|-------|--------|
| 2009 | 12,705 | 3,069 | 24.32% |
| 2010 | 12,684 | 2,043 | 22.66% |
| 2011 | 14,070 | 3,468 | 23.90% |
| 2012 | 14,164 | 3,286 | 22.40% |
| 2014 | 16,400 | 4,354 | 21.96% |
| 2015 | 16,796 | 4,546 | 22.56% |
| 2016 | 17,101 | 4,589 | 23.65% |
| 2017 | 17,643 | 4,753 | 24.12% |
| 2018 | 18,125 | 4,823 | 25.76% |
| 2019 | 19,432 | 4,832 | 26.45% |

Table 2 records the changes of the public revenue, where the total receipts increased by 122 percent between 8,749 billion LBP in 2007 against 19,432 billion in 2019. The non-tax revenue increased two times, by more than 2511-4832 billion LBP, as a result of higher charges, fines, and other non-fiscal sources. The growth of revenue-to-GDP ratios over the time period 21.51 to 26.45 was positive in terms of growth, even though there were economic crises, which showed a slight increase in fiscal capacity. There was significant growth after 2014, and the annual growth was around 7-8 percent because of the increased collection through non-tax. Nevertheless, the growth in revenues was less than that during expenditure, which further increased fiscal gaps. This trend is compatible with the hardships of the developing economies where the scarcity of tax bases and the use of non-tax revenue restrict fiscal space, especially at times of political turmoil and economic crises in Lebanon. The data corroborates theoretical forecasts of revenue restriction constraints curtailing the government reactions to expenditure pressures.

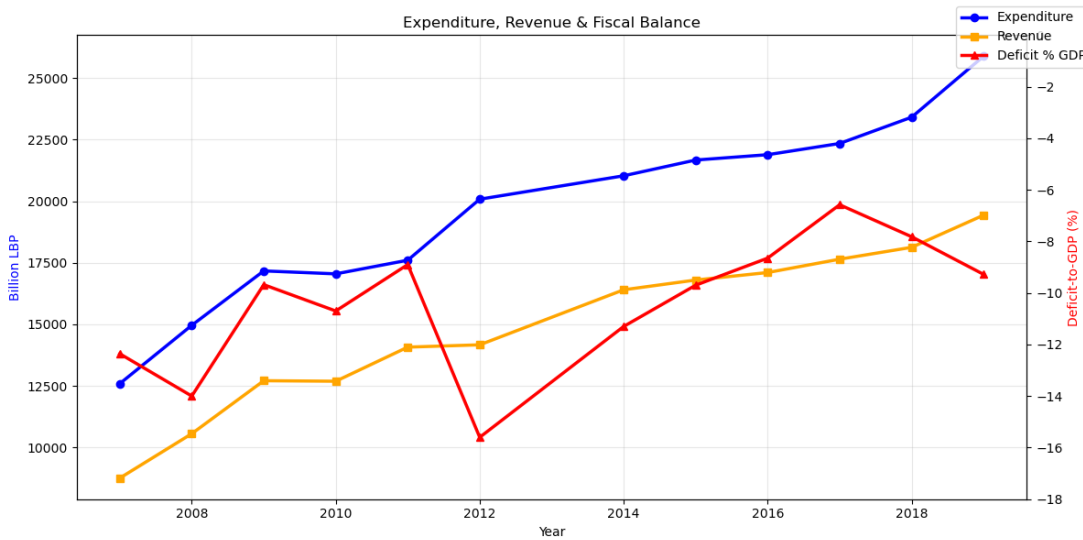


Figure 3: Public Expenditure, Revenue Trends, and Fiscal Deficit-to-GDP Ratio (2007–2019)

Figure 3 has compared the trend of total public expenditure and total public revenue with the fiscal deficit presented as a percentage of GDP. The figure indicates that expenditure growth was always higher as compared to that of revenue during the study period leading to the existence of fiscal deficits. The deficit-to-GDP ratio is quite fluctuating, as it shows the changes in fiscal balance over the years.

4.3 Fiscal Balance and Sustainability

The low level of expenditure relative to the revenue led to incurring constant fiscal deficits within the period of the study. The fiscal deficit increased between -3,838 billion LBP in 2007 to reach -6,458 billion LBP in 2019, which demonstrates the increasing disequilibrium of the public finances.

Fiscal deficits were highly volatile as a percentage of the GDP. In 2017, the ratio of deficit to GDP was -6.58 percent with a highest of -15.60 % in 2012. Such variations represent both phases of increased fiscal constraint and short-term phases of partial consolidation.

Even though the growth of the revenue was large on nominal basis, it constantly trailed the expenditure growth. This continued lack of congruency led to the generation of fiscal imbalances and created anxiety as to the long-term fiscal sustainability.

Table 3: Public Expenditure, Revenue, and Fiscal Balance in Lebanon

| Year | Total Expenditure | Total Revenue | Fiscal Deficit | Deficit-to-GDP (%) |
|------|-------------------|---------------|----------------|--------------------|
| 2007 | 12,587 | 8,749 | -3,838 | -12.36% |
| 2008 | 14,957 | 10,553 | -4,404 | -14.00% |
| 2009 | 17,167 | 12,705 | -4,462 | -9.68% |
| 2010 | 17,047 | 12,684 | -4,363 | -10.70% |
| 2011 | 17,601 | 14,070 | -3,531 | -8.90% |
| 2012 | 20,081 | 14,164 | -5,917 | -15.60% |
| 2014 | 21,032 | 16,400 | -4,632 | -11.30% |
| 2015 | 21,672 | 16,796 | -4,876 | -9.70% |
| 2016 | 21,889 | 17,101 | -4,788 | -8.65% |
| 2017 | 22,345 | 17,643 | -4,702 | -6.58% |
| 2018 | 23,412 | 18,125 | -5,287 | -7.82% |
| 2019 | 25,890 | 19,432 | -6,458 | -9.28% |

Table 3 discloses unremitting fiscal shortfalls with an average of 4,700 billion LBP per annum, increasing to -3,838 billion LBP (2007) and -6,458 billion LBP (2019). Although revenues increased by 122 percent, the growth in expenditure exceeded the increase in receipts by 106 percent, generating the deficit-to-GDP ratios that were ranging between -6.58 percent and -15.60. The peak of 2012 (-15.60) was a result of spending spurt in an environment of political instability and the 2012-2017 relative improvement (-6.58% in 2017) indicates short-term fiscal tightness followed by a lack of improvement. This trend illustrates structural spending-revenue disequilibrium of crisis hit economies, in which revenues are not generated in a way to meet spending obligations. The data supports the problems of Keynesian stabilization in Lebanon, where automatic stabilizers and discretionary spending make deficits in down turns uncompensated by revenue recovery, and such strategies jeopardize fiscal sustainability in the long term.

4.4 Expenditure Composition Shares

Analysis of expenditure shares shows that there are interesting structural features of the Lebanese public spending. Public debt service, which took 39.2 percent of the total expenditure in 2007, fell to 26.4 percent in 2019. This decrease indicates over time variations in the cost of servicing its debts, but debt service was still a huge expenditure of the budget.

The salaries and wages showed unprecedented relative stability. They had a share that went between 28.5 percent and 33.5 percent and settled to 27.0 percent in 2019. This stability implies a lack of flexibility in the changing of the compensation in the public sector.

Investment expenditure was also continuously low and fell to 3.7 percent of total expenditure in 2019, down slightly since 4.4 percent of total expenditure in 2007. This implies the limited allocation of capital to growth enhancing projects.

Conversely, electric transfer to Electricity of Lebanon rose significantly, at the expense of 11.7 percent to 16.4 percent of the overall spending. This is changing the emphasis toward increasing fiscal burden of subsidies and transfers in the expenditure structure.

On the whole, the structure of the public spending in the examination period was characterized by the prevalence of current expenditure commitments, and redefinition of low-intensity productive investment was minimal.

Table 4: Structural Composition of Public Expenditure (% of Total Spending, Selected Years)

| Component | 2007 | 2012 | 2019 | Change (pp) |
|-------------------------|--------|--------|--------|-------------|
| Salaries & Wages | 28.5% | 33.5% | 27.0% | -1.5 |
| Public Debt Service | 39.2% | 27.2% | 26.4% | -12.8 |
| Investment Expenditures | 4.4% | 3.8% | 3.7% | -0.7 |
| EDL Transfers | 11.7% | 17.0% | 16.4% | +4.7 |
| Total | 100.0% | 100.0% | 100.0% | - |

Table 4 shows that there have been changes in the structure of expenditure: the proportion of the public debt service dropped significantly, by 39.2 (2007) to 26.4 (2019) of total expenditure (-12.8 pp), as a result of debt restructuring. Salaries were also held at 28.5-33.5% (-1.5 net decrease) with a connotation of the cost disease of labor-intensive government buildings by Baumol. Investment spending remained peripheral (3.7-4.4%), which held back growth prospects. There was an increase in the transfer to EDL by a wide margin of 11.7% to 16.4% or +4.7 pp, which indicated institutional inflexibility and reliance on energy subsidies. These changes demonstrate the spending pattern of Lebanon which is prevailed by irrevocable current liabilities (salaries, debt, subsidies) instead of productive investment in line with theoretical expectations of an aging population administration facing a crisis. The increasing EDL proportion especially brings out governance failure that leads to increase in expenditure beyond fiscal limit.

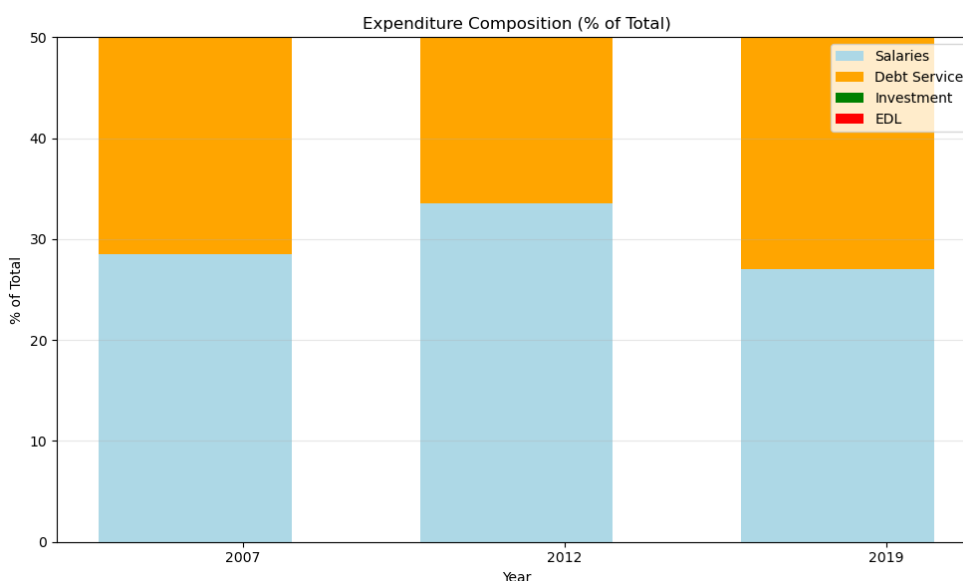


Figure 4: Structural Composition of Public Expenditure (% of Total Spending, 2007, 2012, 2019)

Figure 4 shows how the total public spending has been distributed between the major expenditure areas of specific years. The figure shows the shift in the relative amounts of salaries and wages, public debt service, investment expenditure, and

transfers to Electricity of Lebanon. The composition clearly shows a strong proportion of current spending over the years, minimal allocation to the capital investment and an apparent rise in transfer to the electricity industry.

5. Discussion

The research results indicate the presence of a consistent growth of public spending in Lebanon between the years 2007 and 2019, which does not suggest any temporary fiscal decision but it is characterized by structural and institutional factors. The constant increase of government expenditure even in times of political instability and economic stress evidences the further expansion of the role of the state in controlling social, administrative and crisis-related activities. This trend is similarly in line with theoretical anticipations that the size of government is expected to increase along with the increase in the complexity and exposure of economic systems to shocks.

An important factor that has caused the growth in expenditure is the inflexibility in the current spending items especially the wages and debt servicing in the government. The invariance of wage spending in relation to total spending indicates a lack of elasticity in modifying labor-intensive government services indicating the relevance of cost-pressure relationship in the administration of publics. Likewise, even though the debt servicing reduced proportionally with time, it remained a huge burden on the fiscal resources.

Gradual increases in revenue mobilization and revenues-to-GDP ratios were too little on the revenue side to counter increasing expenditure commitments. Consequently, persistent fiscal deficits were experienced during the period of study. This disequilibrium is what underscores the limitations that developing economies have to grow fiscal capacity with structural limits.

Furthermore, the increasing proportion of transfer to the electricity sector highlights institutional inefficiency, which has led to the expenditure pressures without any direction and increase in productivity. In general, the findings indicate that the growth of public spending in Lebanon is mainly because of the necessities of the structure, institutional persistence, and the crisis stabilization processes, which are worrying in terms of the long-term sustainability of the fiscal situation unless structural changes are made.

6. Conclusion

The increase in the spending levels of the state in Lebanon is not due to short-term financial choices but to the structural strains and institutional limitations. During the time under analysis, the government expenditures continued to grow in spite of the political crises, economic crunches, and the financial strains. Such continuous rise means that the development of the role of the state in offering services, dealing with crises, and sustaining key aspects of the public in a weak economy has been a key driving force behind the rise in public spending in Lebanon.

The descriptive analysis reveals that the composition of the public spending is pervaded with fixed and repetitive elements. In the case of the public sector, wages, debt servicing, and payment to Electricity du Liban used to take a significant portion of total expenditure. These products had low levels of elasticity and they even increased as the economic conditions became weaker. By contrast, investment expenditure was reasonably modest over the period implying that the fiscal resources were instead geared towards sustaining the existing commitments as opposed to being applied in promoting economic growth in the long run. This tendency is in line with the Law of Wagner, which describes how the activity of government naturally increases when the economy becomes more complex, and the cost disease, described by Baumol, which describes the increasing costs in labour-intensive public services.

On the income side, the government cash was rising with time also with the help of tax and non-tax collections. The growth of revenue, however, did not keep up with the rate of expenses growth. Consequently, there were fiscal deficits and in certain years there was a significant expansion of the fiscal deficits. Such imbalances underscore the reduced ability of the revenue source to finance expanding expenditure requirements especially in the existence of structural inefficiency as well as institutional frailties and weaknesses. In Keynesian terms, the results indicate that government expenditure tended to act as a stabilizing factor in times of economic strain, albeit in the context of inadequate discipline in the fiscal field, this was among those factors that led to accumulating fiscal challenges.

On the whole, the data show that the growth in the level of public expenditures in Lebanon is mostly associated with structural factors, but not the immediate policy decisions. The best way to handle these challenges is to have better utilization of the expenditure, restructure the loss-making publics, and balance spending on productive investment. Lacking of this kind of

reforms, further expansion of the public spending is likely to increase fiscal instability and limit economic sustainability of Lebanon in the long run.

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