Budget Deficit and Fiscal Policy Variables: Comparing Jordan to the USA

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Abstract

Objectives: This study examines Jordan's budget deficit compared to that of the USA as a *reference model of an advanced economy in the field of fiscal policies*. It analyzes how this deficit level is influenced by several government fiscal policy variables: tax revenues, general government final consumption expenditures (GFCE), net trade in goods and services, foreign direct investment (FDI) net inflows, and military spending. **Methods**: The data were obtained from the Federal Reserve Economic Data (FRED), the Central Bank of Jordan, and the World Bank from 1990 to 2022, counted in US/million. The study investigated the marginal means for every level of fiscal policy variables (low, medium, and high) and their different effects on the two budgets by calculating one standard deviation plus and minus from the mean. Ratio comparison, repeated ANOVAs, and regressions for investigating diverse levels were applied. **Results**: Given the ratios of the two countries related to economic activities, Jordan has higher ratios; even the USA has approximate behavior like Jordan, according to these activities. However, the regression analytics concluded a different significant effect on both governments' budgets when these fiscal policy variables were low or high. **Conclusion**: Stricter government spending *in Jordan* is required, as is outsourcing non-core activities. To a certain level, raising taxes is irrelevant to lowering the deficit, and it deters investment. Enabling foreign investment and more exports than imports also helps handle the deficit, like collaborating with foreign firms, encouraging locals to invest locally or internationally, and investing in infrastructure, industrial, agricultural, and building initiatives.

Keywords: Budget deficit, Fiscal policy variables, GFCE, Tax revenue, Net trade, FDI net inflows, Military expenditure.

JEL: F3, H5, H6.

1. Introduction

The impact of the budgetary deficit on a nation's economic stability remains a vital issue, whereas a budget is a plan for resource allocation to achieve specific objectives, which should be established on rationality; therefore, prioritization in the budgeting strategy is important concerning scarce resources to achieve efficiency in policy goals (Key, 1940; Laffan & Lindner, 2014). Politicians who construct an influential role in making budget changes could implement budget reforms but often prioritize their interests over the public (Eichenberg & Dalton, 2007; Yunusovich et al., 2021). The link between fiscal procedures, policies, revenues, and expenses affects the budget situation (Wang et al., 2007). Additionally, budgeting and financial practices in the public sector represent the county's fiscal oversight, accountability, and ethics (Peter Van Der Hoek, 2005). Thus, to save budgets, precise and transparent financial reporting may assist governments in obtaining credit and managing risk (Johnson et al., 2012). However, a variety of variables, such as lowering taxes to win over voters, spending on pensions or healthcare for an aging population without setting sufficient reserves, unemployment, and downstream economics, all relate to budget deficits. Responsive fiscal restrictions and accepting shared responsibilities encourage the lowering of deficits (Moslehpour et al., 2022; Von Hagen & Wolff, 2006).

Nevertheless, while economic growth boosts employment, earnings, and overall living standards for citizens, deficits hurt the economy and limit development potential by driving up inflation and interest rates (Brender & Drazen, 2008). The relationship between higher taxes and deficit reduction is complex and impacted by numerous factors, such as the economic progress rate, tax system design,

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and government expenditure efficiency on domestic or military sources. Therefore, equilibrium is crucial. Although high tax rates could discourage investment and economic activity, leading to lower income and slower growth, low taxation can stimulate economic activities over time, which results in increased revenue (Bordo & Levy, 2021; Mawejje & Odhiambo, 2020). A nation experiences a trade deficit when the goods and services it imports surpass those it exports, leading to increased government expenditure as the administration must cover the costs of those imports. Such deficits might arise due to discrepancies between the government's income and expenses. A complicated relationship between trade and budget deficits relies on a nation's economic policy, trade agreements, and outside economic evolutions (Salvatore, 2020). Yet, government deficits that are too high cause financial markets to be unstable and raise investor worry about taking risks in particular nations (Quer et al., 2012; Samadi et al., 2021). Encouraging technological transfer, boosting competition, and generating job opportunities, FDI positively affects regional economic development. Foreign investors may be attracted to a nation more if its policies encourage investment-friendly legislation and lower trade and investment obstacles. Likewise, budgetary strategies that emphasize infrastructure development and human capital development can enhance the general state of the economy and increase a region's or nation's appeal to foreign direct investment (Mahalakshmi et al., 2017).

The International Monetary Fund has supported Jordan's budgetary reforms since 1989 by presenting policy directions to improve its economic growth. Accordingly, Jordan implemented privatization and austerity, which hurt private investment and trade regulation changes, removing restrictions on imports, and abolishing agricultural subsidies that additionally prompted the Jordanian economic collapse (Harrigan et al., 2006). The Jordanian budget shortfall suffers from the administration's economic behavior, with the boost in the economy bringing about a growing deficit. To illustrate, the government's spending choices and public finances, the tax system, and weaker activities primarily impact the budget. Adding the COVID-19 impact to the budget ought to prompt a reconsideration of economic actions and budgetary decisions**.** However, changeovers to the existing tax structure might yield higher revenue and enhance the tax base (Obeidat et al., 2022). Jordan's economy was influenced by regional wars but received considerable economic subsidies via grants. For example, the World Bank and the United States have provided financial support, with some funding conditioned on democratic changes, and the cooperation from international organizations has helped in some way its current economy (Yom & Al-Momani, 2008). Historically, the United States government relied on economic expansion to avoid rising debt-to-GDP percentages, as data from 1792–2003 endorsed the vital role of economic development in maintaining fiscal policy. However, the most recent downward trend in the budget equilibrium presents worries regarding its future viability (Bohn, 2008)**.** The US budget gap has deviated due to increasing deficits during subsequent regimes. The deficit's lasting features are apparent, with the country's fiscal path remaining unresolved due to estimated increases in payments consisting of health care and the military, which result in an ongoing deficiency and probable demand for later years of tax increases (Furman & Summers, 2019**;** Payne & Mohammadi, 2006). Still, Jordan maintains a vital alliance with the US in the Middle East, represented by robust diplomatic ties. As an example, the 1996 Status of Forces Agreement enables US troops to be stationed in Jordan, promoting collaborative exercises, as the US, since 1951, has offered Jordan $26.4 billion in economic and military aid and, in 2023, $1.65 billion in bilateral foreign assistance (Sharp, 2023).

It has been noticed that the Jordanian budget deficit is alarming due to governmental macroeconomic practices and that complications with fiscal health and economic stability occur. Consequently, comparing Jordan’s fiscal policy variable behavior to that of the USA, as an influential actor in the global economy, gives a baseline. Viewed as a whole, this research is essential because it permits policymakers and financial professionals to recognize how developing and industrialized countries act differently. The comparison between Jordan and the United States demonstrates the distinctions between developing and advanced countries. Jordan, a tiny economy, encounters fiscal constraints and demands during diverse economic periods. While the budgetary structure and content of distinct governments would vary greatly, comparing Jordan's with the United States' budgets may teach lessons regarding resource allocation, government function, and the success of different fiscal

policy initiatives. However, the strong relationship between Jordan and the US, characterized by significant financial support from the US, indirectly aids in understanding how foreign assistance and global coalitions influence a country's budget and economic changes, particularly regarding the budgetary directions of both countries (imf.org; nationmaster.com; usaid.gov; worlddata.com). The contribution of this study is in its choice of comparing a developing and developed country, Jordan and the USA, to reach a global comprehension of their financial behaviors, and, at the same time, this study's broad scope of analytics to compare those countries' budgets and government financial activities represented by fiscal policy variables. It uses repeated ANOVA measures and shows ratios that connect the selected economic factors to the budget, along with graphs and time series plots. Additionally, the study defined the marginal means for each category of the government's financial activities (low, medium, and high) and applied both ANOVA and regression analyses. This study recognizes the significant differences in economic scale, fiscal capacity, and revenue structure between Jordan and the USA and therefore does not seek to equalize the two systems. Instead, it looks at how key fiscal policy factors work in two different types of countries (developed vs. developing), using the USA as a reference model to understand the financial patterns of developed economies.

2. Literature Review

Fiscal policies are essential in fostering economic growth in middle-income nations, as governments that balance their spending and revenue decisions would promote sustained economic growth (Rahman & Siddiquee, 2023). Expenditures on goods and services in sectors like public infrastructure, healthcare, and education, known as GFCE, satisfy the needs of citizens and specific groups. Government spending on goods and services rises as the budget is increased. Several other variables can also affect government spending, including resource availability, governmental priorities, spending efficacy, and political pressure (Barasa, 2014). According to Magtulis and Poquiz's (2017) explanation, bigger governments provide more excellent opportunities for corruption, especially in developing nations like the Philippines. This is because GFCE increases as governments grow, which influences budgets. Overspending and corruption might be lessened by cutting down on government spending and improving accountability. Government spending would positively impact budget returns by promoting a stable investment climate. For illustration, spending on infrastructure and education might elevate a nation's level of competition and its attraction to foreign investors. Therefore, governmental decisions on spending or tax incentives regarding infrastructure and human capital investment are sensitive (Apergis et al., 2006). Conversely, Nyasha and Odhiambo (2019) argued that lowering GFCE can lower overall government spending and boost the economy's resource allocation efficiency, which will boost economic growth. Eisner (1984) explained that the budget deficit is impacted by governmental actions such as spending. Although a budget deficit can occur when the government pays more money than it accumulates, the precise relationship can differ depending on several aspects, for example, the condition of the economy in the country, the success of governmental efforts, and the sorts of expenses and taxes.

According to Vasilev (2015), Bulgaria's implementation of the flat tax system, which applies to all taxpayers regardless of income level, benefits the country's budget by increasing tax revenue and lowering the extent of the gray economy (unreported income that is not subject to government taxation), which also maintains the idea that the tax change helped raise the standard of living for households in Bulgaria. However, a study in India stated that taxes are a primary basis of government income, and this assists in diminishing the demand for external borrowing. The proposal was that governments should focus on boosting tax income by establishing efficient tax-collecting procedures (Das, 2018). Motivating innovation and supporting economic growth could be achieved through tax breaks and subsidies (Zhao et al., 2021). Chatagny and Soguel (2012) demonstrated the correlation between tax revenue predictions and government spending, where accurate tax collection maintains fiscal balance and prevents budget deficits. In addition, Arestis et al. (2004) revealed a non-linear association between taxes and the US budget deficit. Their research demonstrated that a particular threshold level of tax revenue exists, including government spending, interest rates, and the prevailing business cycle. Notably, any escalation in tax revenue below this threshold level will bring about a

reduction in the budget deficit. However, conversely, any increase in tax revenue surpassing this threshold level will result in an enlargement of the budget deficit.

Assessing economic prosperity, FDI, and trade openness can be effective poverty reduction strategies (Anetor et al., 2020). Despite Alam et al.'s (2022) focus on macroeconomic factors, it should be remembered that trade can affect a country's balance of payments, and FDI can be seen as a source of foreign financing, both of which affect the country's budget. Moreover, Faizul Islam (1998) discovered a significant association between Brazil's budget deficit and trade deficit, exhibiting that further budget reduction will increase the trade deficit. The study also found a positive relationship between the deficiencies in trade and budget, in which a shift in the trade deficit will likewise change permanently if the budget deficit changes permanently. Similarly, a study in Vietnam explained that investment, trade, and the budget deficit are connected, and policies that stimulate investment and trading could expand economic development and lessen the budget deficit (Van & Sudhipongpracha, 2015). Egwaikhide (1999) discovered that budget deficits had a detrimental impact on Nigeria's trade balance. This is because budget shortfalls frequently result in higher levels of public deficit, which can pressure the exchange rate and lower the competitiveness of Nigerian exports. Transformations in macroeconomic facets, such as interest rates and the balance of oil prices, could seriously impact trade. Eregha et al. (2022) conducted research in 2022 that analyzed the correlation between the budget deficit and the trade shortage using a panel dataset of eight African countries producing oil from 1980 to 2018, as they found a robust association between these two variables.

A study of six Middle Eastern nations addressed the link between defense expenditures, which displayed that a 1% growth in military outlay creates a 1.1% to 1.6% boost in foreign burdens gradually, and a 1% rise in military spending raises the budget burden by 0.2% in the near term (Smyth & Kumar Narayan, 2009). Additionally, another study concentrated on the association between US military expenditure and European state burden from 1988 to 2013, as it found a compatible trend between the deficit burdens of European nations and US military responsibilities, which presented a climb to the US national budget burdens (Caruso & Di Domizio, 2017). However, military expenditure in Estonia and Lithuania was affected by the nation's budget deficit, where military expenses dropped, given an increase in the budget deficit (Odehnal et al., 2020). Moreover, Özsoy (2008) established that defense spending in emerging nations drastically impacts the national budget, which contributes to rising deficits. This is owing to the large financial resources necessary for military expenditure, which might strain the budget and incur deficits when not handled effectively.

2.1. Comparisons between developed and resource-scarce economies

Governments implemented fiscal policies, including income assistance, government debt, and social spending, to address the economic impacts of COVID-19. Debt moratoria and expansionary policies helped prevent further declines in income and business failures; however, these measures also resulted in rising national debt, which became a significant issue for developing nations that were already limited by their fiscal resources. Developed nations adopted stimulus packages of fiscal responses, which are more expansive than those of low-income countries, but an equitable recovery is in danger of growing inequality and increasing debt concerns (The World Bank, 2022). Facing regional instability, including border closures, energy disruptions, and refugee inflows, Jordan implemented fiscal reforms that diverged from traditional IMF (International Monetary Fund) austerity measures. Jordan created a plan for the economy based on three ideas, involving increasing revenue by expanding the tax base, cracking down on tax evasion, and improving administration while lowering sales taxes on essential goods. The government managed spending to protect social safety programs and pay off debts while increasing investments that help the economy, as Jordan prepared policies for emergencies, like keeping strategic wheat reserves. These strategies generated revenue growth, with 9.1% in 2023 and better-than-expected IMF deficit outcomes. Still, structural challenges exist due to rising debt servicing costs resulting from global interest rate hikes that limit public spending. Jordan's financial policymakers believe that fair and efficient financial policies can enhance the economy. Yet, regarding the constraints of resources, Jordan requires additional reforms and external assistance to tackle the issues related to debt sustainability (Al-Ississ, 2023).

The OECD (2023b) tax revenue report revealed significant differences in maintaining fiscal resilience between developed and low-income nations. Through varied tax bases, sophisticated digital management, and strong compliance systems, developed economies show outstanding resilience. For instance, Germany's tax mix and federal coordination provide stability, while the USA boasts dynamic corporate taxes and robust Internal Revenue Service (IRS) enforcement. Japan stays strong despite demographic challenges, employing efficient management and consumption taxes. Conversely, Greece, Mexico, and Turkey had structural problems, including low tax bases, substantial informality, and inadequate government. To clarify, reliance on unstable indirect taxes stunts Greece's recovery. Mexico's oil-based economy suffers from informality, impacting Turkey's uneven economic performance, causing inflation and political unrest. Based on the report, these nations experience poor tax capacity, which limits public investment and growth due to the absence of necessary reforms, modernization initiatives, and economic diversification. Consequently, strong tax systems require a long-term commitment to enhancing inclusive economic policies and administration. When examining other pairs of nations, fiscal dynamics become evident. Primarily reliant on income taxes, Canada's tax system effectively supports substantial social programs (OECD, 2023b).

Germany can manage its debt sustainably and implement counter-cyclical fiscal measures because of its diverse revenue structure and strong institutional credibility (OECD, 2023a). Zambia's fiscal health is heavily reliant on copper exports, making it vulnerable to fluctuations in commodity prices. This export dependency necessitates periodic interventions from the IMF (IMF. African Dept., 2023b). The challenges associated with fiscal consolidation differ between industrialized and developing countries. Furthermore, Mozambique's fiscal system is largely dependent on VAT (value-added tax) and trade tariffs, which contribute to fiscal volatility and impede economic growth (IMF. African Dept., 2023a). The process of fiscal consolidation is intricate and varies significantly across developed and developing nations. In resource-scarce countries, reducing subsidies can lead to societal unrest, complicating the balance between development and equity. Countries pursue efficiency-promoting reforms differently based on their economic and institutional frameworks. Aging populations and increasing age-related expenditures place developed nations, such as the USA, Japan, Germany, Sweden, Italy, and Australia, at risk of mounting debt. This situation necessitates immediate stabilizing reforms, particularly focusing on improving the efficiency of healthcare and education spending. Denmark implements environmental taxes. The USA and Canada implement property taxes to solve similar issues. In contrast, low-resource nations (e.g., Jordan) suffer due to lower revenues and weaker institutions. These issues limit strategies to enhance spending efficiency or achieve financial consolidation without dependence on outside support. Jordan focuses on essential services despite the restricted institutional capacity for social security, tax bases, and enforcement. Hence, it relies more on compliance or user fees (Hagemann, 2012). Jordan has implemented risk-based audits and computerized tax filing; however, improvements in tax compliance have been modest. The development of many enterprises has been hindered by a small tax base and low profit margins (OECD, 2024a).

2.2. Structural public finance differences in developing and developed economies: Jordan and the USA

Disparities in national income are the primary factor shaping the fiscal inequality between Jordan and the USA. The limited fiscal capacity of Jordan impedes the redistributive social expenditure and domestic resource mobilization, demonstrated by the GDP per capita of $4,455.5 in 2023 (The World Bank, 2023a). The World Bank (2023b) and Rodriguez and Wai-Poi (2024) indicate that, despite low income inequality in 2010 (with a Gini index of 33.7), structural barriers continue to affect the achievement of equitable development. Further, the USA shows a flexibility for expansion related to redistribution, with a 2023 GDP per capita of $82,769.4 (The World Bank, 2023a). The USA, however, exhibits higher income inequality due to its advanced fiscal institutions and progressive tax and transfer systems, which promote more redistribution, with a Gini index of 41.3 in 2022 (Coleman & Weisbach, 2024; The World Bank, 2023c).

The trends in household spending reflect wider economic inequalities. Based on the 1997–2017 data review, Jordan's marginal propensity to consume (MPC) was calculated as 0.829, corresponding to families spending about 83% of their extra income (Aljaloudi, 2023). The calculation is informative; however, it does not accurately reflect current economic trends. Jordan's inflation rate decreased to 2.1% in 2023, down from 4.2% in 2022, benefiting from declining global inflation and effective domestic measures (CBJ, 2023). Given the low disposable income, the high marginal propensity to consume (MPC) restricts family savings, which in turn hinders capital accumulation and long-term fiscal stability (The World Bank, 2024c). Additionally, the MPC is higher among low-income households in the USA. Since the ratio is bigger than the national average, Azar (2021) notes that homes in the lowest-income category might consume up to 90% of the total extra money they acquire. The individual savings rate in the USA was 3.9% as of March 2025, reflecting a high propensity for spending. A robust financial system—shown by easy access to credit, various financial tools, and stable institutions—supports elevated spending levels without significantly jeopardizing capital formation (OECD, 2025a).

Investment behavior in Jordan is considered a concentrated focus on specific sectors, as in 2021, gross fixed capital formation (GFCF) represented 22.1% of GDP. The figure illustrates moderate investment activity (The World Bank, 2023d). The IMF's (2024) review shows that real estate and construction have gained a disproportionate share of this investment. While these sectors are essential for employment and short-term economic activity, they yield limited productivity gains and do little to improve long-term competitiveness. The challenges facing investment behavior in Jordan arise from ongoing issues, including inefficient regulations, cautious lending practices, and a lack of incentives to invest in high-value sectors such as technology and manufacturing (Hausmann et al., 2019). In 2023, the USA boasts a gross fixed capital formation (GFCF) portion of 21.5% of its GDP (The World Bank, 2023d). The diverse sectors that received this investment included non-residential construction, machinery, intellectual properties, and R&D (Bureau of Economic Analysis, 2024). Hence, the USA encourages innovation, productivity, and resiliency against sector-specific recessions, in which this proportionate distribution strengthens the economy's adaptive capacity (OECD, 2024).

The structure and depth of financial markets significantly influence economic outcomes by affecting investment, credit allocation, and access to finance (De la Torre et al., 2017). Jordan depends on bank-based financial intermediation, as evidenced by the domestic credit to the private sector ratio, which reached 82.0% of GDP in 2023 (The World Bank, 2024a). The IMF clarifies that the concentration of credit is primarily directed toward large businesses and the real estate sector, resulting in limited access to financing for small and medium-sized enterprises (SMEs) (IMF, 2023). This situation suggests that conservative credit practices and a dependence on traditional collateral-based lending models impede SME lending in Jordan. The USA, on the other hand, exhibits a lower level of domestic credit to the private sector, recorded at 49.1% of GDP in 2023 (The World Bank, 2024a). Even so, the percentage remains low; the financial system in the USA reflects a more advanced development of capital markets. Based on SIFMA (2023), the market capitalization of the USA equity markets was approximately 143% of GDP in 2023. The variety of financial instruments contributes to this ratio, as the USA possesses a robust capital market infrastructure. This characteristic sets its financial model apart from Jordan's predominantly bank-centric approach.

The tax systems of Jordan and the USA reflect their distinct approaches to fiscal policy and varying levels of administrative capability. In 2021, Jordan's tax revenue reached 17.1% of GDP, according to The World Bank (2024c). The General Sales Tax (GST) and customs fees contribute to tax revenue as forms of indirect taxes. Jordan's tax system depends primarily on consumption-based taxes, including the VAT, whereas income and corporate taxes often remain lower due to enforcement issues and special concessions for certain industries. For instance, the 16% VAT rate and sales taxes disproportionately affect households. Consequently, higher-income individuals benefit from lower income and capital taxes, a situation attributed to enforcement gaps and political compromises. Equity and efficacy in revenue mobilization have raised questions regarding this composition (PWC, 2025; The Jordan Times, 2014). According to the (OECD, 2023b) report, the total tax revenue for the USA in 2022, encompassing all levels of government, was 27.7 percent of GDP. A small portion of federal

government revenue comes from consumption taxes, such as sales taxes, while the majority is derived from income taxes, corporate taxes, and payroll deductions. This reliance on personal income taxation in the U.S. tax system may promote a more equitable distribution of the tax burden, thereby reinforcing a progressive tax system (Piketty & Saez, 2007).

Informal work creates challenges for governments regarding tax collection and fiscal control. It limits the pool of taxable individuals and businesses, reduces potential revenue, and complicates tax regulation enforcement, especially in developing countries where informal professions are prevalent (Gwaindepi, 2024; Waseem, 2018). Informal labor in 2019 formed 58% of the workforce in Jordan (ILO, 2020). The primary reason for the high level of informality is that it predominantly occurs in low-skill jobs and service industries, which reflects issues like weak labor laws, limited social security, and insufficient incentives for businesses to formalize. The informal work affects the tax system's efficacy and impairs the expanding initiatives for building the tax base (IMF, 2024). However, surveys conducted by the Jordan Department of Statistics proved that a mere third of residents show an adequate awareness of their tax responsibilities, which additionally drives non-compliance (Department of Statistics, 2021). In 2021, the informal economy in the USA was calculated to represent close to 7.3% of GDP (The World Bank, 2024b). The small share of the informal economy may be attributed to effective institutional structures, digitized tax systems, and reliable enforcement mechanisms. Yet, increased financial inclusion and social trust contribute to a broader awareness of tax obligations, in turn, strengthening compliance and supporting revenue generation (Gebrihet et al., 2023; OECD, 2025).

3. Methodology

This study aims to investigate and compare various components of government spending and revenue—such as tax income, government final consumption expenditure (GFCE), net trade in goods and services, foreign direct investment (FDI) net inflows, and military spending—and their impact on the budgets of Jordan and the USA. Data from 1990 to 2022, converted to US dollars per million, were gathered through the *Federal Reserve Economic Data (FRED), the World Bank, and the Central Bank of Jordan websites.* The study calculated ratios of government economic activities divided by the budget to clarify the differences in the two governments' behavior. Additionally, it measured one standard deviation from the mean "μ-SD" and "μ + SD" for all these economic activities, as they were classified into low, medium, and high. Then, it conducted correlations, repeated measures ANOVAs, categorical ANOVAs for the various levels of government fiscal policy variables, and regressions for high, low, and overall levels.

Explicitly, considering the USA as a model for Jordan, this study's questions are as follows:

(1) In the two countries, do the calculated ratios of government fiscal policy variables to the budget reveal differences in the behaviors of their respective governments?

(2) Are there similarities between the two governments in their "mean differences" directions regarding the budget and the fiscal policy variables in the two countries?

(3) Are there differences in the level of government fiscal policy variables (low, medium, and high) in the two countries?

(4) What is the effect of government fiscal policy variables on the budget in those two countries when the effect level is high or low?

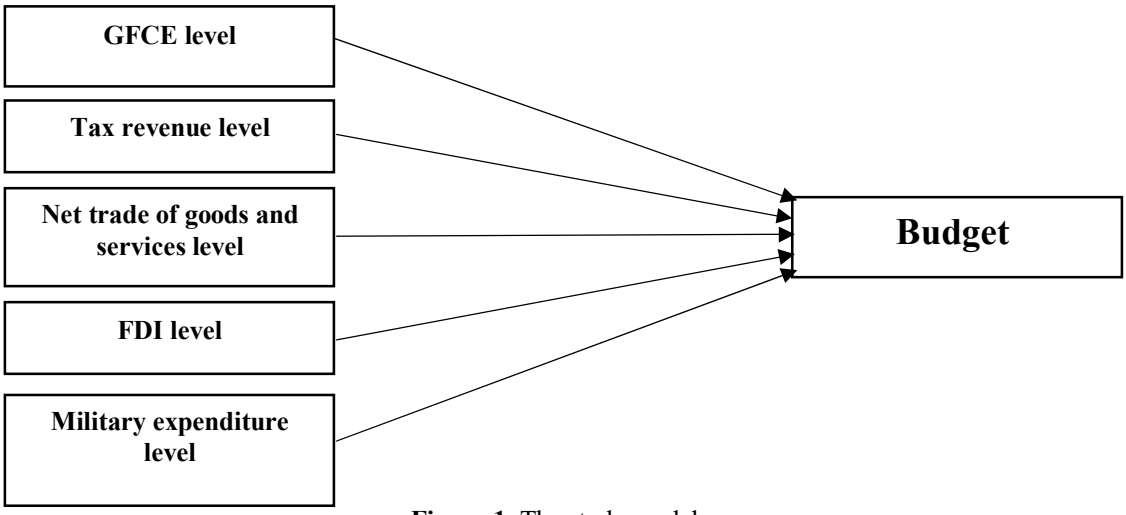


Figure 1. The study model

Source: (Alam et al., 2022; Anetor et al., 2020; Apergis et al., 2006; Arestis et al., 2004; Barasa, 2014; Bordo & Levy, 2021; Brender & Drazen, 2008; Caruso & Di Domizio, 2017; Chatagny & Soguel, 2012; Das, 2018; Faizul Islam, 1998; Mahalakshmi et al., 2017; Magtulis & Poquiz, 2017; Smyth & Kumar Narayan, 2009; Van & Sudhipongpracha, 2015; Vasilev, 2015).

Notably, the calculated budget of Jordan is the final budget after including the external grant. The main concepts of the study are presented in **Figure 1**, the study model. Based on the World Bank, tax revenue is the money people and businesses must give to a government for public use. This applies not to fines, penalties, or social security contributions but to payments like sales and income taxes. If tax revenue is collected in error, it will be considered negative revenue when refunded or corrected. GFCE (previously known as general government consumption) encompasses the entirety of a government's expenses on buying goods and services and includes compensating government workers and spending on national security and defense. Military expenditures that are part of government capital formation are not considered part of GFCE. Further, net trade is the total amount of money regarding goods and services counted by exports minus imports in a country. It is measured relative to the size of its economy. FDI net inflows represent investments, including the money invested in equity, the reinvestment of earnings, and other types of capital. It is a form of cross-border investment where a resident of one economy has control or a considerable influence on managing an enterprise found in another economy. A direct investment relationship exists when an investor owns ten percent or more of the voting stock of an enterprise. To maintain clarity in the regression analysis, each fiscal policy variable was examined individually and classified as either low or high, based on whether it fell below or above one standard deviation from its average. This study then applied linear regression individually for each variable to evaluate its isolated effect on the budget deficit. Since no model included multiple independent variables simultaneously, multicollinearity testing was neither applicable nor required. As clarified before, the data used in this analysis was sourced from authoritative institutions (the World Bank, FRED, and the Central Bank of Jordan), guaranteeing high validity and comparability.

4. Data Analysis

4.1. Descriptive Statistics and Ratio Comparison

Table 1 presents descriptive statistics for six variables, namely budget as the dependent variable and GFCE, tax revenue, net trade, FDI net inflows, and military expenditure as the independent variables, for both Jordan and the USA for 32 years, from 1990 until 2022. The mean values for Jordan and the USA are presented in millions of US dollars. Net trade was deficient in all years, where it was computed as exports minus imports ratios of goods and services. Nonetheless, the "low" and "high" values are figured as the mean subtracted from and added to one standard deviation, except for the budget, which shows the lowest and highest numbers. The fiscal policy variable-to-budget ratios in

Jordan are notably higher than in the USA in all elements. As was seen in Jordan, the GFCE and tax revenue ratios regarding the budget were (-4.83) and (-4.15), respectively, whereas they are higher than in the USA (GFCE/budget = -3.4) and (tax/budget = -2.4). These high negative values demonstrate that government spending in these areas significantly exceeds the budget, contributing to the budget deficit. Except for net trade, which shows the gap in exports related to imports of goods and services in Jordan, it exhibits a higher gap linked to the budget (trade gap/budget = 5.8), which means a higher contribution to the budget deficit, unlike the case in the USA, where this ratio of net trade reveals a lower deficit of -0.29 but is not satisfying.

Table 1. Descriptive Statistics

Budget			Government economic activities									
			GFCE		Tax revenue		Net Trade		FDI net inflows		Military expenditure	
	Jordan	USA	Jordan	USA	Jordan	USA	Jordan	USA	Jordan	USA	Jordan	USA
Mean	-823.74	-5.85×10+5	3981.26	1.99×10+6	3416.19	1.40×10+6	-4773.98	-4.14×10+5	1071.58	2.29×10+5	1040.67	5.16×10+5
SD	888.43	7.52×10+5	2536.61	7.27×10+5	2117.62	5.36×10+5	3139.40	2.40×10+5	989.20	1.51×10+5	644.93	1.86×10+5
Low	-3078.14	-3.132×10+6	1444.64	1.26×10+6	1298.57	8.69×10+5	-7913.39	-6.54×10+5	82.38	7.76×10+4	395.74	3.30×10+5
High	98.03	2.36×10+5	6517.87	2.71×10+6	5533.80	1.94×10+6	-1634.58	-1.73×10+5	2060.78	3.80×10+5	1685.60	7.02×10+5
The ratio of the mean government economic activities to the mean budget			-4.83	-3.4	-4.15	-2.4	5.8	-0.29	-1.3	-0.39	-1.26	-0.88

Note: N = 32 years for each country are presented in million/US dollars. Net trade = exports minus imports of goods and services. Low = mean-1*SD; high = mean+1*SD except for the budget, as its values show the lowest and highest numbers.

Source: Author's elaboration.

4.2. Pearson's Correlations

Table 2 introduces Pearson's correlations for budget-related variables in Jordan and the USA. Both countries share similar ways of behaving in their correlations. However, net trade presents the gap between exports and imports, and this significant value shows that as the net trade gap increases in Jordan and the USA, the budget deficit grows ($r = 0.778$ and 0.502, $p < 0.01$). Otherwise, all other activities establish this powerful adverse relationship with the budget, but the FDI net inflows indicator has a moderately significant link to the budget in both countries at $p < 0.05$; in Jordan, $r = -0.37$, and in the USA, $r = -0.352$. Significantly, not going so far from the budget deficit issue, those governments increased taxes to be compatible with their expenditures (GFCE $r = 0.98$ and 924, $p < 0.001$, respectively) in Jordan and the USA. They also behave in the same way by increasing taxes where there is a gap in the net trade (in Jordan, $r = -0.937$ and in the USA, $r = -0.771$) and where they need to cover military expenditure ($r = 0.967$ and 0.808, $p < 0.001$, respectively) in Jordan and the USA.

Table 2. Pearson's Correlations

Variable	1. Budget		2. GFCE		3. Tax Revenue		4. Net Trade		5. FDI Net Inflows	
	Jordan	USA	Jordan	USA	Jordan	USA	Jordan	USA	Jordan	USA
1. Budget										
2. GFCE	-0.863 ***	-0.731 ***								
3. Tax revenue	-0.8 ***	-0.581 ***	0.98 ***	0.924 ***						
4. Net trade	0.778 ***	0.502 **	-0.924 ***	-0.821 ***	-0.937 ***	-0.771 ***				
5. FDI net inflows	-0.37 *	-0.352 *	0.452 **	0.536 **	0.549 **	0.481 **	-0.657 ***	-0.566 ***		
6. Military expenditure	-0.846 ***	-0.752 ***	0.983 ***	0.963 ***	0.967 ***	0.808 ***	-0.898 ***	-0.795 ***	0.475 **	0.58 ***

Note: N = 32 years for each country are presented in million/US dollars. Net trade = exports minus imports of goods and services. * p <.05, ** p <.01, *** p <.001.

Source: Author's elaboration.

4.3. Repeated Measures Post Hoc ANOVA Comparisons

This study in **Table 3** conducted a repeated measures ANOVA to compare the budget mean with the other economic activities in Jordan and the USA. As shown from the numbers and as illustrated in **Figure 2**, there is a considerable gap in the net trade between the two countries, but it is not significant in the USA due to its compatibility with the budget level, so the deficit in trade in the USA is higher than the deficit in its budget by a mean of 171190.028 million/US. However, both governments have been trying to raise taxes to cover public expenditures, where GFCE and tax revenue have negative t

statistics ($p < 0.001$), and that was more evident in Jordan, where there was no significant difference between taxes and GFCE levels. The USA spends more on its military than Jordan ($t = -8.484$, $p < 0.001$), and it also has more FDI ($t = -6.271$, $p < 0.001$). Regardless of the ratio differences between the two countries, it seems they still have approximately the same behavior in spending, raising taxes, low FDI net inflows, and trade gap compared to the budget minus number, even though the USA recently encountered a sudden drop in its budget and Jordan decline in trade, which is illustrated in **Figure 3**, the series time plot for both countries.

Table 3. ANOVA post hoc comparisons for government economic activities in Jordan and the USA

		Jordan		The USA	
		Mean difference	**t**	**Mean difference**	**t**
Budget	GFCE	-4804.992	-9.152 ***	-2.572×10+6	-19.822 ***
	Tax revenue	-4239.921	-8.076 ***	-1.989×10+6	-15.333 ***
	Trade gap	3950.248	7.524 ***	-171190.028	-1.319
	FDI net inflows	-1895.315	-3.61 **	-813605.406	-6.271 ***
	Military expenditure	-1864.407	-3.551 **	-1.101×10+6	-8.484 ***

Source: Author's elaboration.

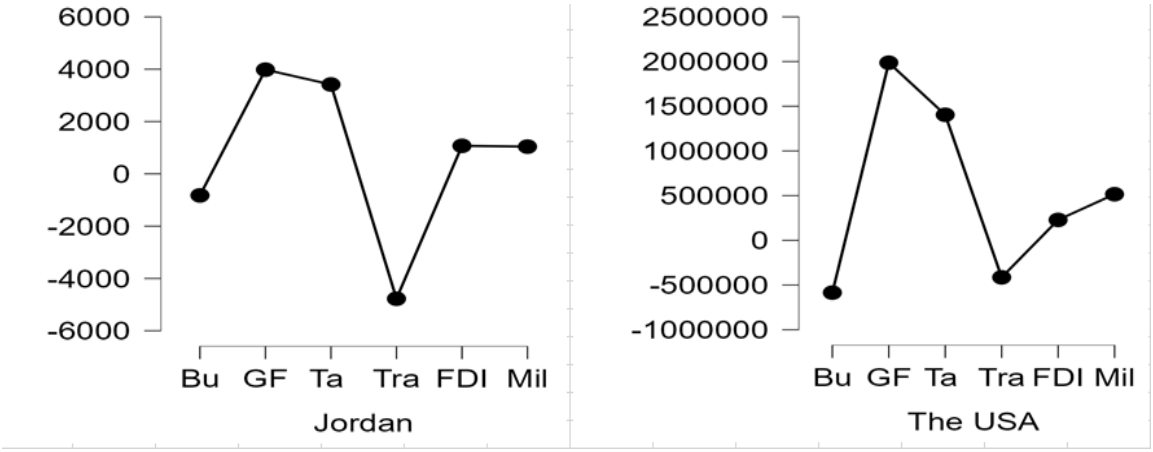
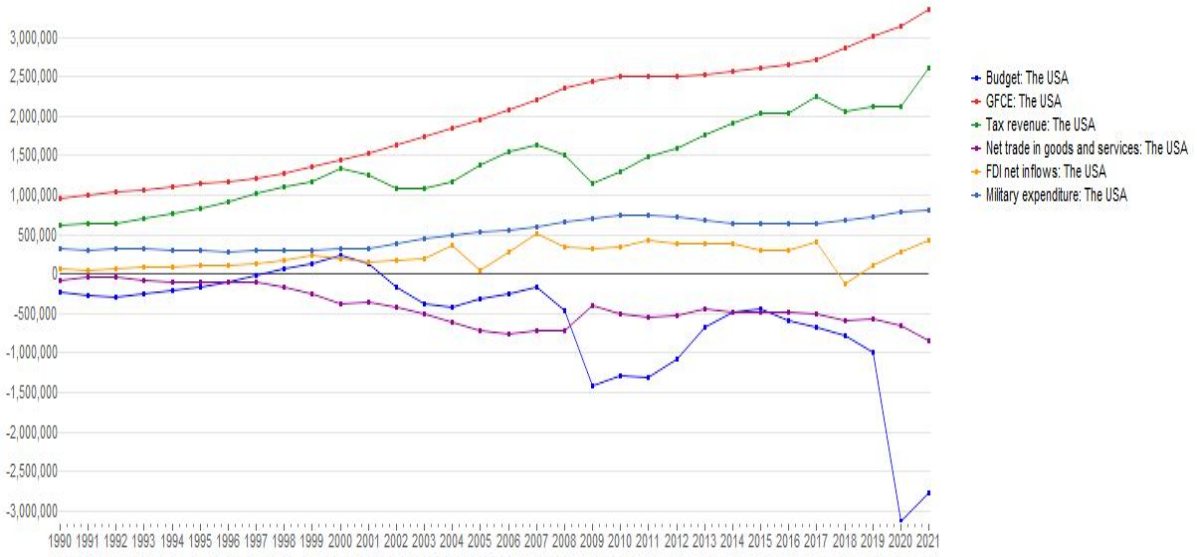


Figure 2. Comparisons of government economic activities and budgets in Jordan and the USA
Note: Budget (Bu), GFCE (GF), Tax (Ta), Trade (Tra), FDI net inflows (FDI), Military expenditure (Mil).
Source: Author's elaboration.



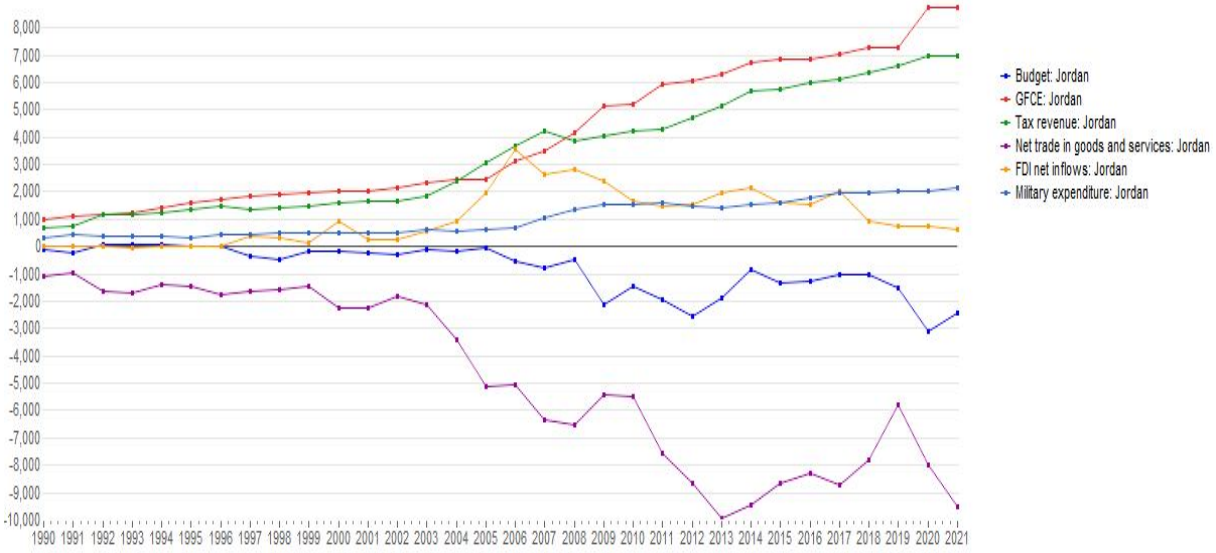


Figure 3. Time series plot

Note: The downward blue line represents the budget, while the upward blue is for military expenditure.
Source: Author's elaboration.

4.4. ANOVA Analysis for Categorical Variables

In **Table 4**, the significance of the F values, except for the net trade and FDI factors (F = 2.131 and 1.276, p > 0.05, respectively) in the USA, demonstrates that there is at least one level of low, medium, or high influence on the budget in these countries. In other words, the level of government economic activities has a different effect on the budget shape, and that was emphasized by the non-parametric alternative to the ANOVA Kruskal-Wallis test statistic, which shows the substantial differences in the means except for the FDI level in the USA (Statistics = 3.28, p > 0.05). However, the η^2p for the military expenditure factors in the USA was the strongest, which shows a higher prediction ability for the budget by 68%, while, in Jordan, it explained 32.2% of the budget change. Additionally, this study, as shown in the marginal means test, goes further and compares the significance among each of these levels, which also proves that there are meaningful distinctions in the budget deficits across the different levels of fiscal policy variables, particularly at medium and high levels for each specific variable (GFCE, tax revenue, net trade, FDI, and military expenditure) within both Jordan and the USA, taking into account that the lower net trade also means a higher trade gap. Based on the analytics, **Figure 4** provides an illustration of all levels of government fiscal policy variables and their link to the budget to attain a broader comprehension of the relationship's directional complexity.

Table 4. The Jordanian and USA budget deficits and the level of fiscal policy variables

	ANOVA		Marginal means			Kruskal-Wallis Test
Cases	**F**	**η^2p**	**Low**	**Medium**	**High**	**Statistic**
Jordan						
GFCE level	6.709 **	0.316	-17.094	-726.999 ***	-1557.634 ***	13.497 **
Tax revenue level	6.709 **	0.316	-17.094	-726.999 ***	-1557.634 ***	13.497 **
Net trade level	12.001 ***	0.453	-1796.704 ***	-629.262 ***	-184.063	12.446 **
FDI level	4.765 *	0.247	-5.803	-1076.798 ***	-956.588 **	13.520 **
Military expenditure	6.883 **	0.322	20.38	-372.222 ***	-1722.027 ***	12.844 **
USA						
GFCE level	10.517 ***	0.42	-191512.375	-465731.842 **	-1.667×10+6 ***	10.179 **
Tax revenue level	6.172 **	0.299	-233797.333	-418505.789 **	-1.338×10+6 ***	8.476 *
Net trade level	2.131	0.128	-792228 *	-738502.056 ***	-162536.556	6.873 *
FDI level	1.276	0.081	-375616.2	-513011.81 **	-1.011×10+6 **	3.28
Military expenditure	30.876 ***	0.68	-100088.909	-402955.929 **	-1.711×10+6 ***	20.897 ***

Note: Budget is the dependent variable. A low level of net trade means a greater gap between exports and imports. * p <.05, ** p <.01, *** p <.001.
Source: Author's elaboration.

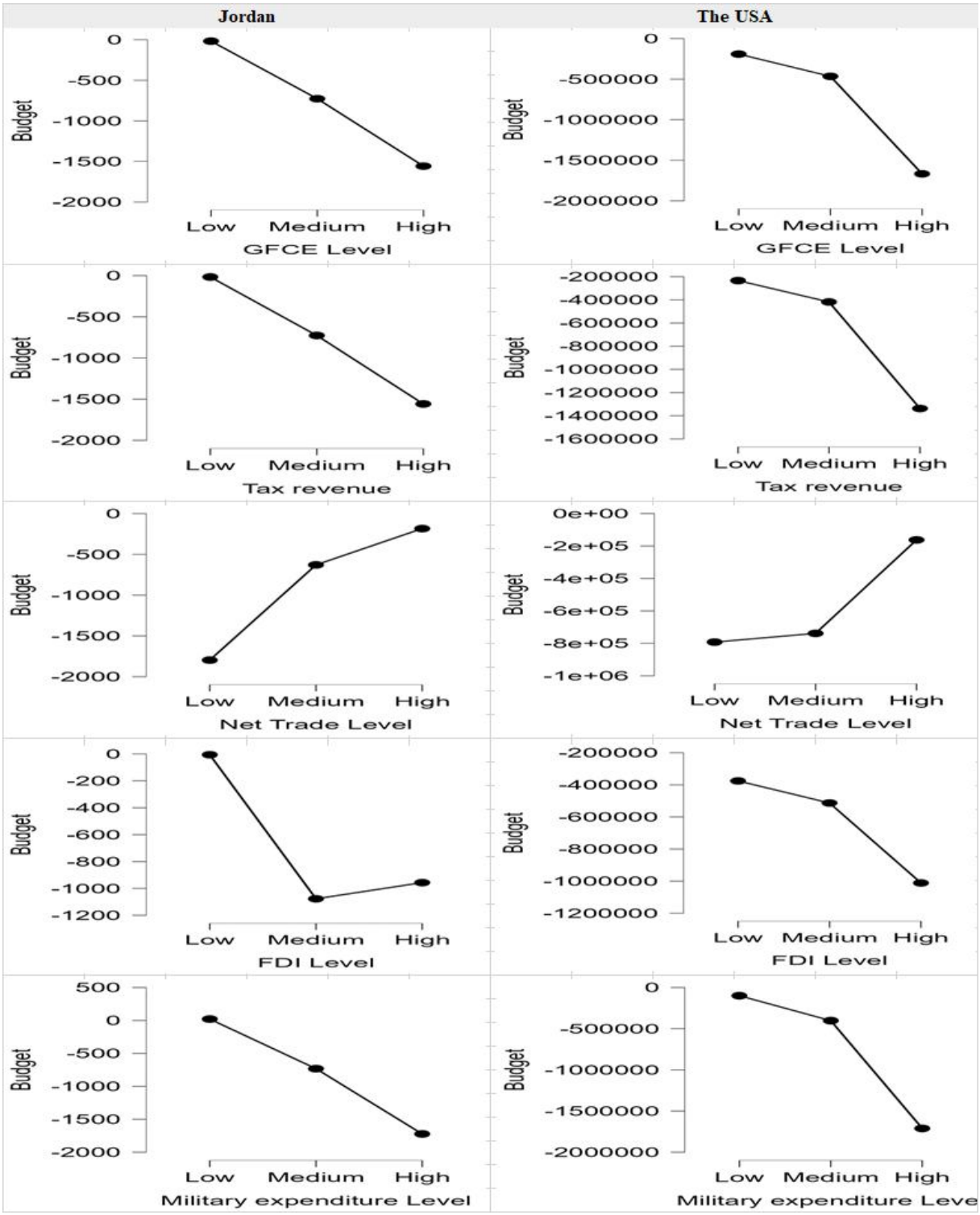


Figure 4. The level of government economic activities and the Budget direction for Jordan and the USA
Source: Author's elaboration.

4.5. Linear Regression for the Jordanian Budget and Fiscal Policy Variables

According to the ANOVA significance results, **Table 5** presents the linear regression analysis showing how different levels of government activities (low, high, and overall) affect Jordan's budget. The linear regression examines each fiscal policy variable's effect on the budget separately to understand its specific impact and prevent overlaps between the different factors. Important results indicate that a higher level of GFCE has a strong negative effect on the budget (β = -0.944), meaning it

can explain 89% of the budget's direction, with each unit change in the GFCE budget causing a decrease of -0.897. Yet, tax revenue at lower levels would improve the budget by (B = 0.537, $p < 0.05$) for each unit change, whereas higher levels of tax revenue would raise the budget deficit by (B = -1.295, $p < 0.001$). Previously, the ANOVA indicated a substantial difference in the means of net trade, FDI, and military expenditure concerning the budget deficit; however, in this analysis, neither the lower nor higher levels of these variables serve as strict predictors of the budget, unlike their overall levels in the linear regression. To illustrate, in general, because of their negative matching values, when the net trade gap increases, the deficit rises by (B = 0.22, $p < 0.001$) with an explaining ability of 60.5%. Additionally, the overall FDI has a significant negative effect (B = -0.332, $p < 0.05$), while the overall military expenditure factor accounts for 71.6% of the budget variations and predicts a deficit increase of one unit for every unit increase in military expenditure (B = -1.166).

Table 5. Linear regression for the effect of fiscal policy variables in Jordan on the budget deficit

Factor	Level	Model summary		ANOVA	Coefficients			
		R^2	Adjusted R^2	F	Unstandardized	SE	Standardized	t
GFCE	High	0.89	0.872	48.719 ***	-0.897	0.129	-0.944	-6.98 ***
	Low	0.47	0.293	2.659	0.631	0.387	0.685	1.631
	Overall	0.744	0.736	87.312 ***	-0.302	0.032	-0.863	-9.344 ***
Tax revenue	High	0.704	0.654	14.248 **	-1.295	0.343	-0.839	-3.775 ***
	Low	0.893	0.858	25.121 *	0.537	0.107	0.945	5.012 *
	Overall	0.64	0.628	53.293 ***	-0.336	0.046	-0.8	-7.30 ***
Net trade	High gap	0.084	-0.099	0.46	0.219	0.323	0.29	0.678
	Low gap	0.049	-0.109	0.31	-0.271	0.487	-0.222	-0.556
	Overall gap	0.605	0.592	45.971 ***	0.22	0.032	0.778	6.78 ***
FDI	High	0.219	-0.041	0.843	0.604	0.658	0.468	0.918
	Low	0.002	-0.198	0.008	-0.178	2.012	-0.04	-0.089
	Overall	0.137	0.108	4.764 *	-0.332	0.152	-0.37	-2.183 *
Military expenditure	High	0.426	0.282	2.967	-4.039	2.345	-0.653	-1.723
	Low	0.414	0.121	1.414	1.675	1.409	0.644	1.189
	Overall	0.716	0.706	75.583 ***	-1.166	0.134	-0.846	-8.694 ***

Note: Net trade = exports minus imports of goods and services. * p <.05, ** p <.01, *** p <.001.
Source: Author's elaboration.

4.6. Linear Regression for the USA Budget and Fiscal Policy Variables

Table 6 displays the findings from a linear regression analysis that examines how US fiscal policy factors impact the budget at low, high, and overall levels, based on the previous ANOVA test. This analysis, like Jordan's model, prevents multicollinearity by testing each fiscal policy variable separately in the regression model. However, the government's general spending in the USA improves the budget at lower levels (B = 0.823, $p < 0.05$), while at higher levels it influences the budget negatively (B = -3.624, $p < 0.01$) with an explaining ability of 77.6%. Besides, this link with the budget is strong for both lower ($\beta = 0.814$) and higher (-0.881). Moreover, tax collection at a lower level would enhance the budget. B = 0.43, $\beta = 0.793$, $R^2 = 62.9\%$, $p < 0.05$. Interestingly, when trade levels are high and imports exceed exports (B = -2.767), a larger gap in net trade leads to a smaller budget deficit, which is the opposite of what happens with a smaller gap (B = 17.64), where the budget deficit increases. It must be considered that the ANOVA tests previously revealed no significant mean difference between budget and net trade and no significant differences among the same level of net trade. However, the overall level of the net trade gap indicates its role in the deficit (B = 1.571, $p < 0.01$). Similarly, FDI has no significance, meaning there are no differences in its level. Regardless, the lower FDI is attributed to an improvement in the budget (B = 2.176, $R^2 = 98\%$, $p < 0.01$), while the overall FDI, with a little explaining power (12.4%), leads to a deficit (B = -1.753, $p < 0.05$). Thus, those factors—net trade and FDI—encourage more futuristic investigations. Nonetheless, the more heightened levels of military outlay are correlated with a deficiency in the budget (B = -22.026, $R^2 = 67.6\%$, $p < 0.05$), but the effect of the overall level is undersized. B = -3.033, $R^2 = 56.5\%$, $p < 0.001$.

Table 6. Linear regression for the effect of fiscal policy variables in the USA on the budget deficit

Factor	Level	Model summary		ANOVA	Coefficients			
		R^2	Adjusted R^2	F	Unstandardized	SE	Standardized	t
GFCE	High	0.776	0.731	17.306 **	-3.624	0.871	-0.881	-4.16 **
	Low	0.663	0.607	11.825 *	0.823	0.239	0.814	3.439 *
	Overall	0.534	0.519	34.421 ***	-0.756	0.129	-0.731	-5.867 ***
Tax revenue	High	0.341	0.21	2.591	-3.163	1.965	-0.584	-1.61
	Low	0.629	0.536	8.778 *	0.43	0.165	0.793	2.703 *
	Overall	0.338	0.316	15.327 ***	-0.816	0.208	-0.581	-3.915 ***
Net trade	High gap	0.839	0.816	36.516 ***	-2.767	0.458	-0.916	-6.043 ***
	Low gap	0.832	0.776	14.888 *	17.64	4.572	0.912	3.859 *
	Overall gap	0.252	0.228	10.13 **	1.571	0.494	0.502	3.183 **
FDI	High	0.046	-0.192	0.194	4.047	9.177	0.215	0.441
	Low	0.98	0.974	149.385 **	2.716	0.222	0.99	12.222 **
	Overall	0.124	0.095	4.256 *	-1.753	0.85	-0.352	-2.063 *
Military expenditure	High	0.676	0.611	10.43 *	-22.026	6.82	-0.822	-3.23 *
	Low	0.068	-0.036	0.654	-3.303	4.085	-0.26	-0.809
	Overall	0.565	0.551	39.011 ***	-3.033	0.486	-0.752	-6.246 ***

Note: Net trade = exports minus imports of goods and services. * p <.05, ** p <.01, *** p <.001.
Source: Author's elaboration.

5. Discussion and answers to study questions

In this part, paragraph one discusses the first research question; the following paragraph discusses the second and third questions; and the last one discusses the fourth question. Notably, when calculating ratios of fiscal policy variables divided by the budget, both governments show the same behavior regarding high spending, tax collection, and low investment. The USA has a gap in net trade, but it is still better than Jordan in exports. Jordan's net trade gap is even lower than its budget deficit, where it has a positive ratio of 5.8. However, Jordan is still the highest spender and tax collector, as well as the lowest, depending on exports and foreign investment. Regardless, by revising *Figure 2* once more time for both countries, it seems that if those governments manipulate the level of trade or the FDI by paving the way for investors and industries, they will address the budget problem, but it must be taken into account that this will initially increase the volume of disbursement as a result of the facilities granted to investors and industrial construction. These results align with the literature regarding government spending and revenue decision balance to promote sustained economic growth (Rahman & Siddiquee, 2023; Apergis et al., 2006). Whereas government spending is vital to the needs of citizens, the size of government can influence budgets and may be associated with increased opportunities for corruption, particularly in developing nations (Magtulis & Poquiz, 2017).

Comparing the significance of the mean difference between the two countries, both Jordan and the USA have a similar backward effect level of significance on the budget ($p < 0.001$), according to GFCE and tax collection. Additionally, Jordan showed a noteworthy larger trade gap compared to its budget deficit. Even though the USA has a considerable trade gap, it is not significant due to the approximate match of deficits in both trade and budget. In addition, Jordan, compared to its budget, pays less than the USA for its military and has lower FDI net inflows. Moreover, by measuring one standard deviation from the mean for the factors of government economic activities, these factors were classified into high, medium, and low levels. Thus, in Jordan, GFCE, tax revenue, net trade, FDI net inflow, and military expenditures, as categorical factors, all showed significant mean differences in their given levels attributed to the budget, which establishes that the budget is influenced by the level of these activities. However, the ANOVA showed that the FDI and net trade levels in the USA were not significant, which might not be so convincing due to the illustration in *Figure 4*, which shows different notable movements in the budget regarding these FDI and net trade levels. Regarding the results, this study concerns Vasilev's (2015) idea about applying a tax system that applies to all taxpayers regardless of their income level to boost the budget and enhance the standard of living since it is not only an adequate solution but also aligns with the idea that FDI and trade openness can be

effective strategies for budget performance improvement (Alam et al., 2022; Anetor et al., 2020; Faizul Islam, 1998; Van & Sudhipongpracha, 2015), and also that lower general spending boosts the budget and economic growth (Eisner, 1984; Nyasha & Odhiambo, 2019).

Regarding the regression analysis, both governments exhibited different effects on their budgets if their activities were high or low. In Jordan, the higher level of general spending and taxation systems is hurting the budget, but with lower levels of tax, the budget would start to increase, while the lower level of GFCE could improve the budget regarding the relationship direction but was not significant. Otherwise, these higher levels of GFCE and taxing would continuously impact the budget separately for each unit increase in GFCE by -0.897 and tax by -1.295, considering the government keeps the same pattern of behavior for other activities. Again, in Jordan, this study could not find significant evidence regarding higher or lower levels of the three variables: net trade gap, FDI, and military expenditure, but at least the unstandardized coefficient direction showed that the higher gap in net trade is compatible with the budget downward movement since both are negative, while the higher FDI and lower military expenditures improve the budget. Nonetheless, the overall level of these three variables was significant and talks about this direction, except for the overall level of FDI, which is still confusing.

However, the regression results in the USA are like those in Jordan regarding the lower level of GFCE and tax collection, where they help positively improve the budget, considering that even where the tax higher level has negative directions with the budget, it was not statistically proven. However, this study could not build robust evidence on a higher or lower level of net trade in the USA due to its insignificance in two ANOVA tests (with the budget mean difference and its insignificant level difference). Regardless, since the budget and net trade both have negative values, the overall net trade gap still shows that for each unit of net trade increase, the budget deficit increases by 1.571 units. On the other hand, the FDI in the USA has no significant means differences in its levels regarding the unstandardized coefficient. Even though the higher level of FDI would enhance the budget by 4.047 for each unit increase compared to the lower level ($B = 2.716$, $p < 0.01$), this study could not establish the higher level of significance of FDI ($p > 0.05$). Moreover, US military expenditures at a higher level remarkably have a robust inverse impact on the budget than even the overall level, considering the lower level has a lesser effect, but it was not statistically substantial. This study realizes the sensitivity of the relationship between public expenditure and revenues (Vasilev, 2015), but it is in alignment with Bordo and Levy (2021) and Mawejje and Odhiambo (2020), as they found that high tax rates hinder investment and economic activity, while low taxation helps trade and investment over time and therefore the budget. In addition, encouraging FDI and lowering military expenditures appear to improve the budget, and this is consistent with the literature (Caruso & Di Domizio, 2017; Mahalakshmi et al., 2017; Özsoy, 2008), as well as the idea of trade deficiencies that can lead to increased government expenditure and hurt the budget (Salvatore, 2020).

6. Conclusions

Jordan and the USA, as developing and developed nations, undergo fiscal difficulties in handling their economic activity. Despite the approximate similar trends of both governments' behaviors, Jordan exhibited higher rates of all spending and taxing and higher deficiencies in trade and foreign investments. Additionally, by studying the patterns of behavior direction for both governments' activities and budgets through the mean differences, it was demonstrated that both countries suffer fiscal backward effects owing to increased expenditure and taxes, noticeable gaps in trade, and lesser investments. Moreover, based on the ANOVA results, differences in the level of these economic activities (low, medium, and high) regarding their impact on the budget were noticed in both countries, except for FDI net inflows and net trade levels in the USA. Additionally, the drawings in the two counties portrayed the apparent decline in their budgets and net trade in goods and services.

On the other hand, the influence of government financial activities on the budget changes whether activity levels are high or low. *In Jordan*, higher public expenditures and taxes adversely influence the budget. Besides, the higher or lower levels of the net trade gap, FDI net inflow, and military expense were not established. However, for those factors, as was noticeable (from their unstandardized

coefficient), the elevated net trade gaps coincide with the budget deficit, while increased FDI (compared to its significant overall level coefficient direction) and reduced military spending foster the budget to grow. Nevertheless, *in the USA*, lower spending and tax collection levels heal the budget. Additionally, the connection between net trade and the budget is significant in the regression, but its direction is still confusing. However, an increased FDI level (compared to its substantial overall coefficient direction) positively serves the budget, while more significant military expenditures exert a negative influence on the budget.

The study confirms that any transition to automation or outsourcing must be implemented gradually, coupled with tailored employee reforms, considering Jordan's substantial rate of unemployment (estimated to be 21.4% in Q2 2024), as per the Department of Statistics (2025). Additionally, the government should introduce digital tools and training programs for its current public servants and displaced personnel to improve their skills and capabilities. This approach allows technology to augment responsibilities instead of replacing them. Furthermore, balancing efficiency improvements with job creation in fiscal reform in Jordan is necessary since the public sector is an essential employer. The study recommends structuring e-governance programs to create new jobs in data administration, client servicing, and system maintenance. This approach aims to enhance service provision through automation, grow the digital economy, and alleviate long-term unemployment. Even with taxes being vital, increasing those taxes drives away investors and increases the burden on citizens, which reduces their savings for future projects. Yet, different agreements and collaborations must be developed by allowing foreign firms to start their initiatives and the residents. In addition, encouragement to the locals to invest locally or internationally should be given to strengthen the national reputation and international ties and raise nationwide profits. Thus, prospective schemes could incorporate industrial, agricultural, and building infrastructure features, such as recovering farmlands, growing livestock, constructing plants, and extracting resources; therefore, efficiency is reached, and new prosperities, such as new job opportunities and production and exports, are rising.

Jordan's financial deficiencies largely arise from various semi-autonomous institutions that have overlapping mandates and provide more attractive wage scales than standard government departments. Several institutions with overlapping roles continue to exist, despite efforts to merge 29 independently financed entities into the public budget for 2018. For example, the Transport Regulatory Commission functions alongside the direct ministries, resulting in fragmentation among institutions and contributing to budgetary pressures (see The Jordan Times, 2018). Through the Public Sector Modernization Roadmap, the Ministry of Finance should thus undertake a thorough operational evaluation of all autonomous entities in cooperation with the Prime Minister's Delivery Unit. The government's reviews should focus on merging institutions with similar functioning, dismantling inactive ones, and assigning remaining tasks to appropriate ministries by looking into repetitions in mandates, budgets, and staffing. These initiatives complement the OECD's (2024) directives for improving public sector efficiency. Moreover, basing performance budgeting systems and coordinating pay structures with public sector scales will help lower wage inflation and match public expenditures with tangible outcomes. However, the government must prevent future fragmentation of institutions and establish fiscal responsibility through a legislative framework that includes cost-benefit analyses and regular evaluations for all new or existing independent institutions. The changes must consider the impact on jobs. Education programs and reorganization opportunities should be utilized to reduce the risk of job losses and ensure that efforts toward fiscal consolidation do not worsen unemployment issues. These considerations, accordingly, will eliminate redundant expenditures and enhance regulatory coherence while maintaining a commitment to social stability and employment.

This study's principal contribution lies in analogizing developing and developed countries and introducing various analytics, but it still has limitations regarding its choice of those countries and the methods applied for the analysis. This study examines the impacts of certain fiscal policy variables on the budget deficit, specifically tax income, GFCE, net trade, FDI inflows, and military spending. The study's limitation is that it does not investigate institutional or procedural factors, such as the 'accuracy of budget forecasts' or the 'impact of political budget cycles.' To clarify, the IMF's (2021) review of

Jordan's fiscal transparency identified a notable optimistic bias in macroeconomic forecasts, which led to revenue shortfalls. Official forecasts frequently exhibit an over-optimistic tendency, particularly during periods of economic expansion. Such tendencies may lead to significant budget deficits (see Frankel, 2011). Political pressures create artificial fiscal space by inflating revenue forecasts and underestimating costs. This practice undermines budget credibility and incentivizes overspending. These issues warrant further investigation to identify standard solutions. In Jordan, the low and high amounts of FDI, net trade, and military spending in the analysis did not show any significant results, while in the USA, the ANOVA test indicated that there was no difference in the average values of FDI net inflows and net trade, which are still unclear. Based on that, it is advised, as a further research direction, to conduct studies concerning the budget and the nation's economic activities on diverse samples of countries and focus more on investigating the policy measures that shape their foreign investment and trade.

عجز الموازنة ومتغيرات السياسة المالية: مقارنة بين الأردن والولايات المتحدة الأمريكية

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الملخص

تتناول هذه الدراسة عجز الموازنة في الأردن مقارنةً بعجز الموازنة في الولايات المتحدة الأمريكية، بوصفها نموذجًا مرجعيًا لاقتصاد متقدم في مجال السياسات المالية. كما تحلل الدراسة مدى تأثر هذا العجز بعدد من متغيرات السياسة المالية الحكومية، وهي: الإيرادات الضريبية، ونفقات الاستهلاك النهائي للحكومة العامة (GFCE)، وصافي التجارة في السلع والخدمات، وصافي تدفقات الاستثمار الأجنبي المباشر (FDI)، والنفقات العسكرية. تم الحصول على البيانات من الاحتياطي الفيدرالي للبيانات الاقتصادية (FRED)، والبنك المركزي الأردني، والبنك الدولي من عام 1990 إلى عام 2022، بواقع (دولار أمريكي/ مليون)، وبحثت الدراسة في المتوسطات الهامشية لكل مستوى من مستويات النشاط الحكومي (المنخفض والمتوسط والعالي) وتأثيراتها المختلفة على الميزانيتين من خلال حساب انحراف معياري واحد زائد وناقص من المتوسط. وطُبِّقت مقارنة النسب وتحليل التباين المتكرر والانحدار للتحقيق في مستويات مختلفة. بالنظر إلى نسب البلدين فيما يتعلق بالأنشطة الاقتصادية، فإن لدى الأردن نسبًا أعلى؛ حتى إنَّ الولايات المتحدة لديها سلوك تقريبي مثل الأردن وفقًا لهذه الأنشطة. ومع ذلك، خلص تحليل الانحدار إلى تأثير مختلف كبير على ميزانيتي الحكومتين عندما كانت هذه الأنشطة الاقتصادية الكلية منخفضة أو مرتفعة. وتبين أن الأردن يحتاج إلى إنفاق حكومي أكثر صرامة، وإلى الاستعانة بمصادر خارجية للقيام بأنشطة غير أساسية. وإلى حد ما، فإن رفع الضرائب لا علاقة له بخفض العجز، ثم إنَّه يعمل على ردع الاستثمار. مع أن تمكين الاستثمار الأجنبي وزيادة الصادرات مقارنة بالواردات يساعد في التعامل مع العجز، كما في التعاون مع الشركات الأجنبية، وتشجيع السكان المحليين على الاستثمار محليا و دوليا، والاستثمار في البنية الأساسية، والمبادرات الصناعية والزراعية والبناء.

الكلمات المفتاحية : عجز الموازنة، الإنفاق الاستهلاكي العام للحكومة، الإيرادات الضريبية، صافي التجارة، صافي تدفقات الاستثمار الأجنبي المباشر.

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