



## The Impact of Government Size on Financial Stability Indicator: A Case Study of Jordan

Ateyah Mohammad Ateyah Alawneh\*

Tafila Technical University, College of Business, AT-Tafila, Jordan. \*Email: [dr.ateyah@ttu.edu.jo](mailto:dr.ateyah@ttu.edu.jo)

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### ABSTRACT

This study investigates the impact of government size indicators—specifically tax revenues, government capital expenditure, and government current expenditure—on the financial stability indicator, represented by the ratio of government debt to gross domestic product (GDP) in Jordan from 2007 to 2023. Data were sourced from the Ministry of Planning, the Central Bank, and the Department of Statistics in Jordan. The analysis was conducted using Bayesian VAR Estimates techniques within the E-Views statistical program to test the study's hypotheses. The results indicate a significant influence of government size on financial stability. Specifically, government capital expenditure is found to reduce the ratio of government debt to GDP, suggesting its role in promoting financial stability. In contrast, both tax revenues and government current expenditure exhibit a positive relationship with the debt-to-GDP ratio, although the impact of these parameters is minimal. This suggests that while the government is striving to achieve financial stability, increasing current expenditure complicates this goal as tax revenues remain insufficient to cover these expenses. Variance analysis further reveals a short-term relationship between government size and financial stability. It is vital to regulate current expenses and explore unconventional funding sources, such as issuing Islamic bonds, to bolster financial stability.

**Keywords:** Government Revenues, Government Size, Financial Stability, Government Current Expenditure, Government Capital Expenditure

**JEL Classifications:** H11, H63, H62, E62

### 1. INTRODUCTION

The relationship between government size and financial stability is a critical area of analysis in financial policy, particularly within developing economies. Researchers highlight this relationship due to the pressing need for governments and decision-makers to maintain financial stability amidst resource constraints, which is especially vital in resource-scarce countries. However, this relationship is often complicated by contradictions and a lack of clarity arising from varying definitions and measurement methods. Different studies employ various indicators to assess government size, including government investment, final government consumption, and government transfers (Bajrami et al., 2022). The size of government is typically determined by a combination of consumption expenditure, capital expenditure, and tax revenues. It can be measured by the ratio of total government expenditure

to GDP and the ratio of government employees to the population (Elsayed, 2023).

This study focuses on tax revenues and expenditures as indicators of government size in Jordan, examining their impact on financial stability. A key indicator of financial stability is the ratio of government debt to GDP, as recognized by the Arab Monetary Fund (Abid, 2020). Rising public debt presents significant challenges, necessitating the establishment of limits to mitigate financial risks (Alwan and Kadhim, 2020). Therefore, the connection between government size and financial stability is closely linked to its effects on public debt, a major challenge for countries that often need to borrow to cover budget deficits. Government debt levels are calculated by dividing total debt by GDP, reflecting the state's ability to repay its obligations. Excessive debt levels can adversely affect public finances, complicating the

provision of essential services. Governments implement various strategies to manage debt levels, such as increasing tax revenues, reducing government expenditures, and encouraging investments. The main issue stems from a significant increase in expenditures in Jordan, posing a notably growing challenge for the government, as the debt-to-GDP ratio rose from 74% in 2007 to 113.8% in 2023. Therefore, understanding the relationship between government size and the debt-to-GDP ratio as an indicator of financial stability is crucial for decision-makers in Jordan.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Numerous research endeavors have been undertaken in the local Jordanian setting regarding various study parameters such as government spending, tax revenues, economic growth, and public debt. These scholarly investigations underscore the significance of crafting well-balanced fiscal strategies that amplify the efficacy of governmental expenditures, boost revenue streams, and thereby foster financial stability and sustainable economic progress. Broadly speaking, these academic inquiries underscore the necessity for a holistic comprehension of the intricate interplays among debt, revenues, expenditures, and their ramifications on Jordan's developmental trajectory. While certain studies unveil the constructive impacts of government revenues on economic growth, others highlight the adverse repercussions of public debt on the economy (Alkasasbeha et al., 2018; Al-Masaeed and Tsaregorodtsev, 2018; Al-Dughme, 2019; Saungweme and Odhiambo, 2019; Alwan and Kadhim, 2020; Abbas et al., 2022; Chiad, 2022; Kassem, 2024; Al-Hayek, 2024; Bani Hani and Warrad, 2023). Studies have indicated that an increase in government spending can enhance overall economic conditions and boost Gross Domestic Product (GDP) (Karimi et al., 2016). Moreover, public debt serves as a barrier to sustainable development, being linked to adverse effects on economic growth. Certain studies suggest that high public debt may result in a decrease in expenditure on essential services, thereby negatively affecting development (Alawneh, 2017).

Several studies conducted in external contexts have consistently found a positive impact of government size on economic growth, primarily through measures such as government general expenditure and capital expenditure (Vedder and Gallaway, 1998; Dar and Amirkhalkhali, 2002; Asimakopoulous and Karavias, 2016; Bajrami et al., 2022). While studies have shown a negative impact of government size on economic growth as measured by government expenditure (Gali, 1994; Fatás and Mihov, 1999; Chen and Lee, 2005; Mohanty and Zampolli, 2009; Afonso and Jalles, 2011; Bergh and Henrekson, 2011; Zareen and Qayyum, 2015; Goh and Aznan, 2023). An optimal government size can enhance GDP benefits (Elsayed, 2023). Taxes represent state funds collected to meet needs, and effective revenue generation is crucial for achieving economic goals, including financing government services (Al-Hayek, 2024). Public expenditure and government spending are key aspects of financial policy. Public expenditure encompasses all amounts spent to meet general needs, while government spending includes payments for necessary goods and services. Post-World Wars, increased government spending led

to growth, but improvements in services may not always follow due to administrative and economic factors (Al- Al-Ghnai, 2020). Factors contributing to increased public spending include rising prices, population growth, and geographical expansion, all of which enhance individual living standards (Hajaya, 2018). Public expenditure is divided into capital and current expenditure, with capital covering expenses for new projects and current for salaries and essential goods (Yasin, 2020). In Jordan, the rise in current expenditure is linked to an increase in public sector workers and infrastructure spending (Alawneh, 2017). Government debt, refers to the total amount owed by a country to individuals, companies, and other nations, encompassing all forms of borrowing at various government levels (Ajayi and Edewusi, 2020). It is a key financial strategy used when other measures fail, preferred over currency creation or selling national assets. Public debt includes liabilities owed by state and local governments to various entities, such as individuals and foreign governments, and accounts for future obligations like pension payments (Qwader and Aloshaibat, 2020). The debt-to-GDP ratio is a significant indicator of financial pressure and stability, helping nations assess their economic health (Kazim and Alwan, 2020). This study uses this measure as a benchmark for financial stability in Jordan.

Jordan is grappling with various economic imbalances, notably a public budget deficit stemming from the escalation of public expenditures, especially current outlays. This predicament necessitates Jordan's dependence on financial avenues such as taxation. Nonetheless, the surge in current expenditures surpasses tax revenues, exacerbating the nation's indebtedness and impeding the government's endeavors to attain fiscal stability. This study aims to analyze the impact of government size on financial stability, represented by the debt-to-GDP ratio, which is essential for understanding financial stability in Jordan.

Based on the literature review, the following hypotheses can be formulated:

- $H_1$ : There is a statistically significant relationship between the government size indicator, government tax revenue, and the financial stability indicator, the ratio of government debt to GDP.
- $H_2$ : There is a statistically significant relationship between the government size indicator, government capital expenditure, and the financial stability indicator, the ratio of government debt to GDP.
- $H_3$ : There is a statistically significant relationship between the government size indicator, government current expenditure, and the financial stability indicator, the ratio of government debt to GDP.

These hypotheses delineate the assumptions to be investigated in this research, concentrating on the potential correlations between government size metrics and financial stability in Jordan, as represented by the ratio of government debt to GDP.

## 3. METHODOLOGY

This study employed a descriptive and analytical approach. The study variables were delineated based on prior research and then

statistically estimated and analyzed using a Bayesian VAR Estimates model to achieve more precise results in handling data, regardless of their stability levels, even when the data exhibit instability and non-normal distribution. This dynamic model is particularly suited for academic research and practical applications in the finance sector. In order to accomplish the study's objectives and test its hypotheses, the research categorized and identified the variables. The independent variable consisted of the scale of the government measured by taxes, government capital spending, and government current spending; whereas the dependent variable was financial stability determined by the government debt to GDP ratio (Figure 1).

The study collected and utilized secondary data from yearly sequence spanning from 2007 to 2023. These authentic yearly data pertaining to the study variables were sourced from statistical reports released by the Central Bank of Jordan, the Ministry of Planning and department of Statistics (Central Bank of Jordan, Ministry of Planning, department of Statistics n.d). The study utilized the E-views software for analysis and conducted a Vector Auto regression (VAR) analysis. Unit root tests were conducted utilizing the Augmented Dickey-Fuller (ADF) approach test to ascertain the stability of the study variables, as VAR analysis necessitates data stability at the level, first difference, or second difference. Subsequently, a data slowing test was conducted to gauge the degree of deceleration using the AR Lag Order Selection Criteria, followed by employing the VAR test based on the extent of data deceleration.

Additionally, a stability test of the VAR model will be conducted to assess its stability and address any potential stability-related issues within the model errors. Moreover, the study employed Common Variance Analysis to investigate the intensity and nature of associations among the study variables in the short term. Impulse Response Function tests were carried out to analyze how the dependent variable responds to random shocks from the independent variables. Descriptive statistics, encompassing means and standard deviations, were computed to offer a comprehensive insight into the data characteristics. Lastly, these varied statistical

approaches, including the VAR model capable of handling all series regardless of their integration levels, were utilized to test the research hypotheses formulated in this study.

## 4. DATA ANALYSIS

### 4.1. Testing Data Stability Using a Unit Root Test

Table 1 illustrates the outcomes of the extended Dickey-Fuller test. It reveals that current government expenditure stabilizes at the first difference, as the proportion of government debt to GDP, government tax revenues (TR), and government capital expenditure stabilize at the second difference. According to the Dickey-Fuller results, which indicate the non-stationarity of all variables at the same order, the issue will be resolved by employing Vector Auto regression (VAR) analysis. VAR accommodates all-time series data regardless of their integration level; the crucial factor is that the variables exhibit stability.

### 4.2. Analyzing Data Deceleration

Before conducting the testing and estimation process, it is crucial to ascertain the degree of lag in the VAR model based on measures like LR, FPE, AIC, SC, and HQ. Utilizing E-views software, the criterion values were as shown in Table 2. The tests indicated that the optimal lag order was ( $P = 2$ ).

### 4.3. Descriptive Analysis

Figure 2 demonstrates a consistent rise in growth rates of government current expenditure (CE), government tax revenues (TR), and the proportion of government debt relative to GDP throughout the study period. This trend is accompanied by fluctuations in the growth rates of government capital expenditure (KE). These indicators suggest a rising trend in the expansion rates of indicators of government scale, which may impact financial stability indicators, particularly the government debt-to-GDP ratio

From Table 3: The typical measure for government debt in relation to GDP is 87%, with a standard deviation (SD) of 17.23691. This indicates variability in the debt-to-GDP ratio over the study period, ranging from a minimum of 58.40% to a maximum of 113.80%. In terms of tax revenues, there has been an increase in government revenues, with an average of 4,116.024 million and a (SD) of 6.319223. The increase in (SD) suggests variability in tax

**Figure 1:** Study model independent variable dependent variable



**Table 1: Results of data stationarity test using the expanded Dickey-Fuller test (ADF)**

Variable	Calculated value	Critical value	Lag length	Degree of stability
GD	-6.670760	-4.004425	-	1% at 2 <sup>nd</sup> difference*
	-3.926996	-3.098896	-	5% at 2 <sup>nd</sup> difference*
TR	-3.202252	-3.098896	2	5% at 2 <sup>nd</sup> difference*
KE	-5.500040	-3.959148	3	1% at 1 <sup>st</sup> difference*

Sources: E-Views output

**Table 2: Lag order tests**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-364.1714	NA	2.45e+16	49.08953	49.27834	49.08752
1	-312.7139	68.61005	2.41e+14	44.36186	45.30592	44.35180
2	-274.9892	30.17977*	2.52e+13*	41.46523*	43.16455*	41.44712*

Sources: E-Views output

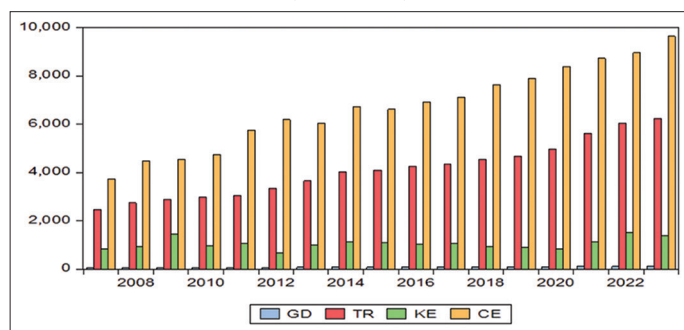
revenue across the study years, driven by growth in government revenues, as substantial amounts are needed for expenses, whether they are current or capital in nature. Additionally, the average total capital expenditure is relatively low compared to revenues, indicating a decline in capital spending in Jordan. The average capital expenditure is 1,058.629 million, with a (SD) of 220.3519, reflecting variability in capital expenditure during the study period. Meanwhile, the average current expenditure is high relative to tax revenues and government capital spending, indicating an increase in current spending in Jordan. The average current expenditure is 6,709.300 million dinars, with a (SD) of 1,711.058, indicating variability in government current expenditure during the study period that exceeds the level of tax revenues. This explains the variability in the ratio of government debt to (GDP), as the state requires substantial amounts for current expenditures that cannot be covered by revenues (Al-Hayek, 2024).

The results indicate the skewness coefficients of the study variables are within an acceptable range., with values constrained between  $\pm 1$ . Specifically, skewness ranges from  $-0.079050$  for the financial stability index (GD) to  $0.383554$  for tax revenue (TR),  $0.592766$  for capital expenditure (KE), and  $0.06153$  for current expenditure (CE), respectively.

## 5. TEST HYPOTHESIS

After verifying the data's appropriateness for statistical analysis and performing stability and lag analyses, this phase marks the

**Figure 2:** The changes in the values of variables over the period (2007–2023)



Sources: E-Views output

**Table 3: Descriptive statistics**

Descriptive statistics	GD	TR	KE	CE
Mean	87.17059	4116.024	1058.629	6709.300
Median	90.80000	4096.000	1029.100	6716.500
Maximum	113.8000	6229.300	1512.300	9626.200
Minimum	58.40000	2472.100	675.9000	3744.200
Std. Dev.	17.23691	1146.319	220.3519	1711.058
Skewness	$-0.079050$	$0.383554$	$0.592766$	$-0.061532$
Kurtosis	1.956137	2.154261	2.887065	2.053448
Jarque-Bera	0.789540	0.923473	1.004587	0.645366
Probability	0.673835	0.630188	0.605141	0.724203
Sum	1481.900	69972.40	17996.70	114058.1
Sum Sq. Dev.	4753.775	21024758	776879.7	46843537
Observations	17	17	17	17

Sources: E-Views output

hypothesis testing stage in data analysis. The research model examines the link between independent variables representing government size indicators (government tax revenue, government capital expenditure, and government current expenditure) and the dependent variable, which is the financial stability indicator (the government debt-to-GDP ratio). The data comprises a time series covering the period from 2007 to 2023, selected for its comprehensive availability of data across all variables during this timeframe.

To test the hypotheses regarding the influence of government size on stability indicator (the government debt-to-GDP ratio), a VAR (Vector Auto regression) analysis was performed. The outcomes of the hypothesis tests are outlined in Table 4. As depicted in Table 4, the VAR model is statistically significant, with an F-value of 21.14496, indicating significance at the 0.05 level ( $\alpha \leq 0.05$ ). This illustrates the importance of the model and its statistical robustness. The Adjusted R-Squared coefficient suggests that roughly 92% of the variance in the dependent variable can be accounted for by the size of the government. Consequently, about 92% of the changes in the financial stability indicator (the government debt-to-GDP ratio) can be attributed to variations in government size, suggesting a statistically significant relationship between government size and the financial stability indicator (the government debt-to-GDP ratio).

**Table 4: Results of the VAR test for study variables**

Variables	GD	TR	KE	CE
GD (−1)	0.253119 (0.08382) [3.01991]	13.72099 (4.14316) [3.31172]	0.068941 (5.86177) [0.01176]	18.90095 (7.60869) [2.48413]
GD (−2)	0.029292 (0.04726) [0.61978]	2.856586 (2.33027) [1.22586]	1.629083 (3.29907) [0.49380]	2.752916 (4.27883) [0.64338]
TR (−1)	0.004192 (0.00156) [2.69438]	0.384980 (0.07781) [4.94761]	0.089382 (0.10947) [0.81648]	0.458333 (0.14212) [3.22498]
TR (−2)	0.001005 (0.00095) [1.06009]	0.075539 (0.04758) [1.58762]	−0.007046 (0.06675) [−0.10557]	0.125926 (0.08658) [1.45451]
KE (−1)	−0.000636 (0.00134) [−0.47566]	0.010808 (0.06654) [0.16242]	0.014562 (0.09509) [0.15314]	−0.027145 (0.12221) [−0.22213]
KE (−2)	−7.16E−05 (0.00070) [−0.10291]	−0.007142 (0.03462) [−0.20627]	−0.004976 (0.04951) [−0.10049]	0.005855 (0.06358) [0.09208]
CE (−1)	0.002880 (0.00092) [3.11718]	0.149754 (0.04597) [3.25746]	−0.025285 (0.06505) [−0.38873]	0.251446 (0.08499) [2.95869]
CE (−2)	0.000690 (0.00052) [1.32269]	0.037470 (0.02596) [1.44335]	−0.005036 (0.03675) [−0.13702]	0.060841 (0.04812) [1.26441]
C	21.69926 (4.56829) [4.74997]	−217.9668 (226.912) [−0.96058]	791.3781 (321.631) [2.46052]	785.2157 (416.768) [1.88406]
R-squared	0.965746	0.978696	0.207100	0.956180
Adj. R-squared	0.920073	0.950290	−0.850099	0.897753
Sum sq. resids	124.5250	338260.6	563671.0	1371152.
S.E. equation	4.555674	237.4379	306.5048	478.0433
F-statistic	21.14496	34.45417	0.195895	16.36536
Mean dependent	89.96667	4316.147	1080.353	7055.500
S.D. dependent	16.11409	1064.947	225.3408	1495.000

Sources: E-Views output



- Hypothesis one: Table 4 indicates a positive correlation between the size of the government indicator (tax revenues) and the financial stability indicator (the ratio of government debt to GDP). Specifically, a rise in tax revenues by 1% 1 year or 2 years prior corresponds to an increase in the financial stability indicator by approximately 0.004192 or 0.001005, respectively. This implies that heightened tax revenues reflect the strength and stability of the tax base, indicating the government's ability to secure stable income from taxes. However, it is important to note that tax revenues alone do not suffice to cover government expenditures, as a portion of these revenues is financed through debt. This reliance on debt poses significant challenges to achieving sustained financial stability. The findings are further substantiated by the T-statistic, which demonstrates Statistical significance at a 95% confidence level, with a  $P < 0.05$ .
- Hypothesis two: Table 4 also reveals an inverse association between the government size indicator (government capital expenditure) and the financial stability indicator (the ratio of government debt to GDP). Specifically, if government capital expenditure increases by 1% 1-year prior, the financial stability indicator will decrease by approximately 0.000636. Similarly, if government capital spending increases by 1% 2 years' prior, the financial stability indicator is expected to decline as well the government debt-to-GDP ratio is expected to decrease by approximately 7.16E-05%. This indicates the impact of government size on achieving financial stability through increased capital spending. Generally, this suggests that an increase in spending on capital projects contributes to reducing government debt relative to the overall size of the economy.

The government becomes more capable of improving infrastructure and providing public services, which also serves as an indicator of financial stability. This reflects the government's enhanced ability to manage its debts and mitigate the negative repercussions of debt on the entire economy, thereby fostering the growth of the economy. The estimated parameters show a larger impact of capital spending from 2 years' prior on reducing debt levels, given the nature of capital expenditures on projects that require several years to manifest their positive effects on the national economy, and consequently on achieving financial stability. This is further illustrated by the estimated parameters, which indicated a greater increase 2 years ago in the impact of capital expenditures on the debt-to-GDP ratio. This aligns with the government's role in achieving financial stability, this is further supported by the T-statistic value, considered statistically significant at a 95% confidence level, with a  $P < 0.05$ .

- Hypothesis three: Table 4 indicates a positive association between the government size indicator (current government spending) and the financial stability indicator (the ratio of government debt to GDP). Specifically, if current government spending increases by 1% 1-year prior, the financial stability indicator (the ratio of government debt to GDP) will increase by approximately 0.002880. Alternatively, if current government spending increases by 1% 2 years' prior, the financial stability indicator will increase by approximately 0.000690. This demonstrates the impact of government size through current spending, as tax revenues alone are insufficient to cover ongoing government expenditures. This

can be interpreted to mean that each 1% increase in current government spending results in a significantly lower increase in the debt-to-GDP ratio. It suggests that the increase in current government spending may have a limited effect on government debt relative to the overall size of the economy. This implies that part of the expenditures is financed through taxes, while the remainder is covered by debt. From this, it can be concluded that increased current government spending can affect the ratio of government debt to GDP, posing a challenge to financial stability in Jordan and to achieving fiscal balance. Overall, the analysis of the impact of government size on financial stability, as expressed as the government debt-to-GDP ratio, suggests that government capital expenditures play an effective role in achieving financial stability in Jordan. However, the government faces difficulties in maintaining stability due to rising current expenditures that exceed tax revenues, which limits the achievement of the financial stability the government aims for. Despite the government's efforts, the reality remains that current expenditures are greater than revenues, hindering financial stability and the desired fiscal balance that the government strives to achieve.

### 5.1. Testing the Stability of the VAR Model

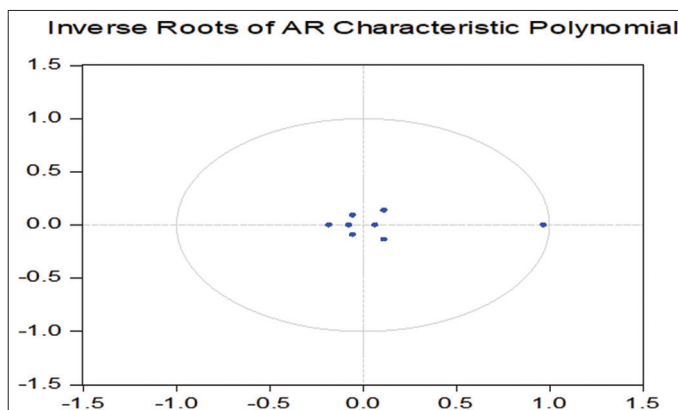
The stability was evaluated using the Polynomial Characteristic of Roots method, which indicates that the model is stable, as shown in Table 5. Additionally, Figure 3 Inverse Roots of AR Characteristic Polynomial method indicates that the inverses of the unit roots of the polynomial lie within the unit circle, further supporting the conclusion that the VAR model is stable.

**Table 5: VAR satisfies the stability condition**

Modulus	Root
0.970136	0.970136
0.180437	-0.180437
0.178268	0.114357-0.136755i
0.178268	0.114357+0.136755i
0.106013	-0.053730-0.091388i
0.106013	-0.053730+0.091388i
0.073996	-0.073996
0.067149	0.067149

No root lies outside the unit circle. VAR satisfies the stability condition. Sources: E-Views output

**Figure 3: Inverse roots of AR characteristic polynomial**



No root lies outside the unit circle. VAR satisfies the stability condition. Sources: E-Views output

## 5.2. Analysis of Covariance

The findings outlined in Table 6. clearly indicate that most short-term fluctuations affecting financial stability (GD) are primarily driven by self-shocks of the variable itself. These shocks account for approximately 88.58% of the changes observed in the financial stability indicator (GD) during the second period following the shock. Notably, the impact of these self-shocks declines over time, reaching 62.56% after ten periods. Regarding the contributions of shocks from other variables in explaining changes in the financial stability indicator, the analysis in Table 6. shows that the explanatory ratio of government size (TR) in Jordan on the financial stability indicator (GD) gradually increased from zero to 22.71% by the tenth period. This suggests that the government size indicator (TR) effectively explains variations in the financial stability indicator (GD) in the short term, with a noticeable increase in its explanatory power over this timeframe. Additionally, the explanatory ratio of the government size indicator (KE) on the financial stability indicator (GD) also rose from zero to 6.65% by the tenth period. This indicates a similar trend where the government size (KE) contributes to explaining variations in the financial stability indicator (GD) in the short term, with a consistent upward trajectory in its explanatory contribution Table 6. further reveals that the explanatory ratio of government size (CE) on the financial stability indicator (GD) increased from zero to 8.06% by the tenth period. This finding reinforces the notion that the government size indicator (CE) also plays a role in explaining the financial stability indicator (GD) in the short term, with a gradual rise in its explanatory capacity.

In summary, it can be inferred that there exists a notable correlation among the government size indicators. And the financial stability indicator (GD). This is evidenced by the increasing explanatory

contributions of the government size indicators to financial stability during the short term.

## 5.3. Response Functions

From in Table 7, which displays the response functions, it is evident that the impact of random shocks to tax revenues on financial stability (the ratio of government debt to GDP) was positive but decreased by the end of the 10<sup>th</sup> year. This suggests that random shocks to tax revenues have a diminishing positive effect on financial stability in the short term.

Additionally, the response functions in Table 7 show that the impact of random shocks to government capital expenditure (KE) on financial stability (the ratio of government debt to GDP) was negative and decreased until the end of the 10<sup>th</sup> year. Therefore, it can be concluded that random shocks to government capital expenditure play an effective role in achieving financial stability (the ratio of government debt to GDP) in the short term.

Meanwhile, in Table 7, indicates that the impact of random shocks to government current expenditure on financial stability (the ratio of government debt to GDP) was positive and decreased by the end of the 10<sup>th</sup> year. This leads to the conclusion that random shocks to government current expenditure have a diminishing positive effect on financial stability (the ratio of government debt to GDP) in the short term.

## 6. RESULTS AND DISCUSSION

This study addressed the role of representative government size indicators (tax revenues, government capital expenditure, and

**Table 6: Variance decomposition of GD: Period**

Variance decomposition of GD: Period	GD	TR	KE	CE
1	100.0000	0.000000	0.000000	0.000000
2	88.58379	5.323683	3.029562	3.062968
3	80.42848	10.37633	4.377240	4.817955
4	75.20634	13.95959	5.053091	5.780984
5	71.52756	16.51099	5.516661	6.444794
6	68.80325	18.39951	5.861161	6.936084
7	66.70275	19.85470	6.127326	7.315230
8	65.03623	21.00907	6.338584	7.616120
9	63.68400	21.94573	6.510003	7.860271
10	62.56671	22.71965	6.651638	8.062002

Sources: E-Views output

**Table 7: Response of GD: Period**

Response of GD: Period	GD	TR	KE	CE
1	3.221348	0.000000	0.000000	0.000000
2	1.386298	0.859730	-0.648554	0.652120
3	1.203568	1.017088	-0.572338	0.631081
4	1.140390	1.009731	-0.512714	0.577225
5	1.107659	0.981648	-0.494119	0.556499
6	1.075573	0.951229	-0.479312	0.539349
7	1.043677	0.922669	-0.465167	0.523336
8	1.012515	0.895088	-0.451304	0.507731
9	0.982275	0.868360	-0.437830	0.492573
10	0.952939	0.842428	-0.424754	0.477863

Sources: E-Views output

government current expenditure) in influencing financial stability through the indicator of government debt as a percentage of GDP.

The analysis using variables demonstrated the impact of government size indicators on stability, with tax revenues showing a positive correlation with the government debt-to-GDP ratio. However, the effect coefficient of tax revenues on increasing the debt-to-GDP ratio was notably low, at 0.004192 and 0.001005 one and two years earlier, respectively, relative to GDP size. This suggests the government's efforts towards achieving financial stability through this indicator. Nonetheless, a rise in government expenditures exceeding tax revenues poses challenges in attaining the desired financial equilibrium. These findings are in accordance with a study by Chiad (2022) that illustrated an inverse correlation between taxes and growth. Additionally, studies by Gali (1994) and Bergh and Henrekson (2011) revealed a negative association between government size and growth when using tax revenue as a metric. Moreover, the analysis emphasizes the impact of current expenditure on the debt-to-GDP ratio, with increases of 0.002880 and 0.000690 observed 1 and 2 years earlier. The increase in government spending has a restricted effect on the debt ratio relative to GDP due to insufficient tax revenues covering current expenses, leading to additional financing through debt. These results align with Bergh and Henrekson's (2011) study that evaluates government size by total expenditure as a percentage of GDP. Similarly, research by Fatás and Mihov (1999), Mohanty and Zampolli (2009), Gali (1994), and Afonso and Jalles (2011) employs government consumption expenditure as a government size indicator, revealing negative implications for growth. Zareen and Qayyum's (2015) study supports this, suggesting that a larger government has a negative impact on economic growth. In return, the analysis also highlighted a significant role for capital expenditure in fostering financial stability, with the impact coefficient of capital expenditure on reducing the debt-to-GDP ratio amounting to 0.002880% 1 year prior and 0.000690% 2 years prior. These findings align with research conducted by Bajrami et al. (2022), Karimi et al. (2016), and Goh and Aznan, 2023, which considered government investment as a form of government capital expenditure in public projects, showcasing a positive influence on the economic growth rate as an indicator of financial stability in the study's country sample. This outcome is further supported by a study (Al-Hayek, 2024), indicating that investments in government capital expenditures lead to long-term increases in government revenues.

Therefore, the primary focus of government policies should be the enhancement of capital expenditures as a marker of financial stability. This enhancement signifies an improvement in the government's capacity to manage its debt more efficiently, reduce the negative impacts of debt on the overall economy, and consequently bolster economic growth. The stability test on the VAR model confirms its reliability, hinting at predictive capabilities. Regarding the analysis of variance, the explanatory ratio of the tax revenue indicator (TR) on financial stability, as measured by the ratio of government debt to Gross Domestic Product (GD), increased from zero to 22.71% in the tenth period. Similarly, the explanatory ratio of the impact of government general current expenditure indicator (CE) on financial stability,

as measured by the ratio of government debt to GDP, increased from zero to 8.06% in the tenth period.

Moreover, the explanatory ratio of the impact of government capital expenditure indicator (KE) on financial stability, determined by the government's ratio debt to (GDP), gradually increased from zero to 65.6% in the tenth period.

This analysis indicates that the government's size, particularly through government capital expenditure, significantly influences achieving financial stability. However, achieving financial equilibrium poses a challenge due to current expenditures surpassing tax revenues, which are insufficient to cover these expenses. Despite the government's targeted efforts to attain stability through tax revenues, current expenditures exceed tax revenues, impeding financial equilibrium in the nation. This remains a substantial challenge in developing economies like the Jordanian economy, grappling with numerous economic hurdles. Nonetheless, the efficacy of the government's size through government capital expenditure in bolstering financial stability in Jordan is evidently clear. During the performance of impulse response functions, the analysis revealed that random tax shocks revenues have a diminishing positive effect on financial stability (government debt to GDP ratio) in the short term. On the other hand, random shocks to government current expenditure have a diminishing positive effect on financial stability (government debt to GDP ratio) in the short term. Furthermore, the occurrence of random shocks to government capital expenditure plays a significant role in achieving financial stability (government debt to GDP ratio) in the short term, specifically in reducing the debt-to-GDP ratio.

From the preceding discussion, it can be inferred that the size of the government, particularly through government capital expenditure, has played a clear role in achieving financial stability. However, a challenge persists in attaining fiscal balance due to current expenditures surpassing tax revenues, which are insufficient to cover these expenses. Despite the government's diligent efforts to achieve stability through tax revenues, current expenditures continue to exceed tax revenues, limiting the achievement of fiscal balance in the country. This remains a significant challenge in developing economies, like the Jordanian economy, which faces numerous economic constraints. Nevertheless, the effectiveness of government size through government capital expenditures has been evident in enhancing financial stability in Jordan.

This study investigated the correlation between government size and financial stability in Jordan. Data were obtained from the documents of the Ministry of Planning, the Central Bank, and the Jordanian Department of Statistics, utilizing annual time series data from 2007 to 2023 to provide information on all study variables throughout this period. The results revealed direct relationships and trends, as well as short-term relationships between government size as the independent variable and financial stability as the dependent variable. The capital expenditure indicator played a significant role in achieving financial stability. Additionally, both tax revenue and current government expenditure indicators contributed to financial stability; however, the state's struggle with



high current expenditures relative to tax revenues limited its ability to achieve financial balance. The government of Jordan is making significant efforts to manage and control public debt; however, current expenditures are hindering the achievement of financial balance due to their higher levels compared to tax revenues.

## 7. CONCLUSION, RECOMMENDATION AND LIMITATION

This situation underscores the need for reforms aimed at exploring unconventional funding sources to cover expenses and finance capital investments. Instruments such as Islamic bonds could be utilized in conjunction with the private sector to fund investment projects. The theoretical significance of this study is in emphasizing the importance of considering the magnitude of current expenditures relative to tax revenues when examining the impact of government size on financial stability. The results indicate that capital expenditures are a critical indicator of financial stability in Jordan.

The practical significance of this study involves offering perspectives to governments, policymakers, and stakeholders on the importance of government size through capital expenditures in achieving financial stability. The findings can be utilized to formulate strategies and policies that bolster financial stability in Jordan. For example, the government could leverage its accumulated experience and technical expertise to achieve a balance between tax revenues and current expenditures, ensuring that tax revenues adequately cover ongoing expenses, which would also contribute to financial stability. Additionally, the government could seek alternative funding sources to support current expenditures for the underprivileged through zakat funds.

Moreover, the government should aim to increase capital expenditures on public investment projects to achieve greater financial stability. Collaboration with the private sector through the issuance of Islamic bonds could also be an effective strategy for financing these projects. Government productivity, which leads to increased investment, may subsequently result in higher revenues and the achievement of financial balance. Notably, there is a need for further studies examining the future impact of the relationship between current expenditures and government tax revenues, as well as the effects of government capital expenditures on the relationship with other variables in the context of utilizing alternative funding sources. This includes exploring the potential use of zakat funds to meet the needs of the poor and needy, and issuing Islamic bonds to finance capital projects through partnerships between the public and private sectors.

Additionally, it is essential to establish a suitable framework and constitution for fiscal governance within governmental departments and institutions.

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