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The Dual Role of Public Debt in Morocco's Investment Dynamics: Evidence from the ARDL Approach

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Abstract

This study examines the effect of public debt on investment performance in Morocco over the period 1990–2024. Gross fixed capital formation serves as the dependent variable, while public debt, government expenditure, inflation, and population growth are used as explanatory variables. Using the Autoregressive Distributed Lag (ARDL) approach, the analysis captures both short-run and long-run dynamics. The results reveal that in the long-run, public debt has a negative and statistically significant effect on investment, which suggests that excessive indebtedness challenges capital formation. In the short-run, only public debt has a temporary positive impact that fades over time. The negative and highly significant error correction term confirms a stable long-run relationship between the variables. Diagnostic tests indicate that the model is free from serial correlation, heteroskedasticity and instability. Globally, the findings underscore that while debt can initially stimulate investment, sustained debt accumulation could hinder it, highlighting the importance and need for prudent debt management and more efficient use of borrowed resources in Morocco.

Keywords: Public debt, investment, ARDL model, fiscal policy, Morocco

Introduction

In recent years, and in the wake of the COVID-19 crisis, the global economy is continuously facing significant and persistent fiscal pressures, rising debt levels and structural challenges.

With global public debt reaching unprecedented levels, understanding its implications for productive investment and long-term economic performance has never been more critical.

According to the IMF in the end of 2024, global public debt has reached $98 trillion, which represents 94% of global GDP, and according to the statistics, this ratio can easily reach 100% of the GDP by 2030.

This situation illustrates the consequences of fiscal deficits averaging around 5% of global GDP, which is driven by the recovery measures taken after the pandemic, social spending, and the increase of the cost of debt-servicing. Although a certain decrease in private borrowing has occurred, governments in the world continue to rely in a heavy way on indebtedness to sustain investment and social spending.

In this global context, Morocco reflects similar challenges, with a public debt ratio reaching around 70% of GDP in 2024, which appears to be exceeding the prudential threshold determined by international institutions. While this level of debt can be related partly to major investments in infrastructure, energy and industry, economists like El Moussaoui (2025), warned that Morocco's growing debt increases the exposure to external shocks and emphasize the need for better fiscal governance (World Bank, 2024). Despite these challenges, investments play a central role in Morocco's development model, the country's gross fixed capital formation reached one of the greatest ratios in its region, with 28,8% of GDP in 2023, with public investment representing about 9% to 10% of GDP, whereas private investment grows more slowly due to financing and regulatory constraints.

Despite the growing attention of policy makers and researchers to the dynamics of debt, the empirical findings remain divided regarding the effect of public debt on investment. While some studies link debt accumulation to great productive capacity, particularly when debt finances major sectors like infrastructures and public capital formation, such as the studies of Marmullaku & al. (2021) and Tarawalie & al (2021) who highlight the positive role of debt when directed toward productive expenditures. Others like Mendonça (2021), Picarelli & al. (2019) and Islam (2024) present the negative impact of public debt on both public and private investment, particularly in highly indebted economies. Meanwhile some report a more nuanced dynamic, highlighting the non-linear relationship, proving that below a certain level of public debt, investment can be stimulated, like the

results achieved by Penzin & al (2022). However, these findings appear to be divergent and inclusive, and a good number of the researches tend to study the impact of public debt on economic growth, addressing investment only as a transmission channel rather than a direct object of study. Therefore this study seeks to analyze the impact of public debt on investment in Morocco, due to its big role in the economic strategy, it investigates both long-run and short-run dynamics by employing the Autoregressive Distributed Lag (ARDL) approach.

This study not only sheds light on the relationship between public debt and investment, but also some insights for other emerging economies wanting to align debt sustainability with long-term investment and growth goals. This study is structured as follows. The following section reviews the relevant literature, followed by model specification, data sources and estimation methodology. The empirical findings are then presented and discussed, then the study concludes with key insights and policy recommendations.

Literature review

The relationship between public debt and investment generated divergent findings among economists. Some argue that public debt can strengthen and stimulate productive investment when used efficiently, while others highlight that excessive debt levels hinder capital formation and therefore growth.

A body of literature highlights the positive role of public debt in enhancing and stimulating investment, more precisely when the borrowed amounts are directed toward productive expenditures. That way investment financed by debt can improve and strenghten the economy's productivity through the increase of the marginal productivity of private capital and labor. This expansion of productive potential stimulates in the long-run private investment and consumption, as improvements in infrastructure tend to improve efficiency and reduce the costs of production accross the economy. As presented by Leduc & al. (2013), well-targeted and public investments financed by debt lead to a positive effects on economic activity, which endure sustainable growth. On the same perspective, Tarawali & al. (2021) found in their work on the relationship between public debt and growth that external debt represents an additional source of capital, fulfilling the financing gap faced by developing economies, promoting that way investment which leads in its turn to growth. In this logic, a moderate level and a well-managed debt is a complementary financial tool that supports productive accumulation. Evidence from the study on a sample of transition European countries from 1995 to 2017 done by Marmullaku & al. (2021), reinforces this perspective, by finding that public debt influences in a

positive way growth through public investment, which suggests that borrowing can be an effective tool to finance capital fromation in emerging economies. They concluded that financing capital investment by increasing the level of public debt may lead to greater economic growth through the expansion of investment under certain fiscal conditions.

However, Penzin & al. (2022) discovered a non linear relationship between public debt and private investment in emerging economies. While using a threshold regression model, they identify a threshold of 3% below which public debt exerts a positive effect on private investment by financing productive activities and enhancing macroeconomic conditions, that way they highlight that low and good management and controlled debt ratios can lead to a crowding-in effect, which supports investment and growth before a reverse effect occures when public debt exceeds a level. In a similar perspective, which stipulates that the effect is not linear, Kamiguchi (2023) finds that when an economy is dynamically inefficient, which means that when the growth rate is greater that the return on capital, investments financed through debt can improve growth by the increase of productivity. On the contrary, in a dynamically efficient economy, where the growth rate is lower that the return on capital, debt-financed public investment can hinder growth unless public capital leads to high productivity gains. Going hand in hand with these results, Mabula & al. (2019), find that public debt has two sides, it can crowd-in private investment, if its used to finance infrastructures, or crowd it out which is linked to the fact that high public debt forces the government to increase future taxes to service the debt.

While moderate levels of public debt can stimulate productive investment, an expanding body of empirical findings highlights the negative and adverse effects of excessive debt on the performance of investment. Elevated debt burdens can reduce the ability of the government to finance new investments or respond to economic shocks, crowd out private capital and weaken public investment capacity, that way constraining long-term economic activity. For instance Helder Ferreira de Mendonça (2021) studied a panel of 24 emerging markets from 1996 to 2018, and found that an increase in the debt to GDP ratio leads to a decrease in public and private investment, with the effect being intensified after the 2007-2008 global financial crisis. Explaining that after this period, governments faced higher amount of debt service and stricter fiscal constraints, which limits the government's capacity to sustain public sector investment. In a similar perspective, Picarelli & al. (2019) report that for every 1% increase in public debt, public investment decreases by 0,03%, particularly in countries with already high debt ratios. These results support the crowding-out effect, where debt accumulation direct fundings away from productive capital formation. Furthermore, Asif M. Islam (2024), uses multi-wave firm-level

panel data from developing economies to show that higher debt ratios hinder singnificantly private investment, especially when increased government indebtness challenges the access of firms to credit. He also presented a channel of effects where he explain that when government increase the debt level, they also raise taxation and administrative controls to mobilize funding for debt servicing, which creates fiscal and bureaucratic burdens that discourage private investment, more particularly for SMEs because they are the most vulnerable to credit pressurers. In the case of the region of Eastern Africa, Bunde Aggrey Otieno (2024) uses a Spatial Durbin Fixed-Effects (SDM-FE) model and presents that external public debt has a negative spillover influence on regional growth activity. The results also demonstrate that excessive borrowing reduces both domestic and external investment by reducing fiscal space, raise interest levels and elevate macroeconomic uncertainty. This study recommends that debt should be managed prudently to support investment and ensure stable economic growth in interdependent regional economies. In a more country specific study, Çerpja (2024) finds that for Albania external public debt impacts negatively and significantly public investment in the long-run, meanwhile internal debt remains insignificant. He explained these findings by suggesting that external debt can hinder capital formation when not directed toward productive sectors. This goes hand in hand with the findings of Thobeka Ncanywa (2018), who used an ARDL, Granger-causality, impulse-response, and variance-decomposition techniques to report that public debt impacts negatively investment for the case of South Africa. He also finds a bidirectional causal link between public debt and growth, explaining that high debt ratio also slows growth, which in turn strengthen fiscal pressures. Globally, these studies dive into one conclusion, the fact that increased public debt levels lead to a decrease in investment performance. This finding is collectively explained by the mechanism of financial crowding-out, shrinked fiscal space for productive investment, regulatory and administrative burdens and great macroeconomic uncertainty.

Overall, the literature reveals that the effect of public debt is not uniform but depends on its level, composition, and the way borrowed funds are managed.

Data and methodology

Data and model specification

The study examines the effect of public debt, government expenditure, inflation and population growth on investment in Morocco. In line with previous empirical researches such as (Çerpja & al. 2024) (Thobeka Ncanywa & al. 2018), we employ GFCF as the dependent variable. The data is gathered annually from the World Development Indicators (WDI, 2025)

and International Monetary Fund (IMF, 2025) database, for the period from 1990 to 2024. Table 1 presents a detailed summary of the variables used in the analysis. Fig.1 illustrates the yearly trends of the employed variables.

The following model represents the empirical assessment of the analysis:

$$\mathbf{GFCFt = \alpha 0 + \alpha 1\ DBTt + \alpha 2\ GOVEXt + \alpha 3\ INFLt + \alpha 4\ POPt + \varepsilon t.}$$

Where $GFCF_t$ indicates gross capital formation, used as the dependent variable, DBT_t represents the general governmement gross debt, GOVEXt refers to general government final consumption expenditure, UNEMPt stands for unemployment, $INFL_t$ represents inflation measured by consumer prices and POP_t refers to population growth.

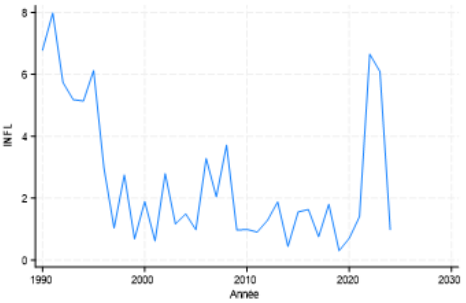
Table 1. A summary of the parameters and their sources.

Parameter	Description	Source
GFCF	Gross capital formation (% of GDP)	World Bank (WDI)
DBT	General governmement gross debt (% of GDP)	International Monetary Fund (IMF)
GOVEX	General government final consumption expenditure (annual % growth)	World Bank (WDI)
INFL	Inflation, consumer prices (annual %)	World Bank (WDI)
POP	Population growth (annual %)	World Bank (WDI)

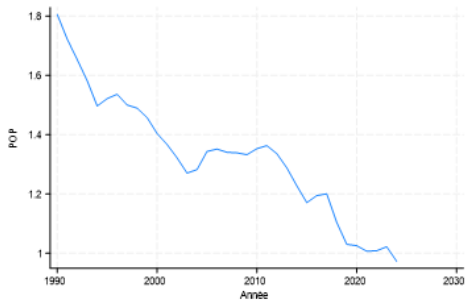
GFCF over time

Government debt overtime

Gross fixed capital formation overtime



Inflation over time



Population growth over time
Fig. 1. Yearly trends of the variables

Methodology

Figure 3 presents the step-by-step methodological framework used and followed to perform this study. The first step of the analysis is based on the testing of the stationarity of the data. Implementing unit root tests is a crucial and necessary step, as it helps prevent misleading regression findings. However, the effectiveness of unit root tests can depend highly on sample size. Therefore, the use of multiple tests is recommended to reduce the possibility of misinterpreting the integration characteristics of the time series (Raihan & al.2025). To confirm the integration order of the variables and rule out I(2) processes, both the Augmented Dickey–Fuller (ADF) test (Dickey & Fuller, 1979) and the Phillips–Perron (PP) test (Phillips & Perron, 1988) have been mobilized. After the verification of stationarity, we proceeded to the estimation of the ARDL bounds cointegration test introduced by Pesaran & al. (2001). This approach gives the ability to confirm the existence of a long-term relationship between the variables and accommodates regressors integrated of different orders, specifically I(0) and I(1). We used the Stata ardl command to estimate the ARDL model, applying the Akaike Information Criterion (AIC) for automatic lag determination a maximum of four lags. The bounds test examine the null hypothesis of no long-run relationship using the F-statistic. If the value of F-statistic appears to be greater than the critical bounds, the null is rejected and the existence of cointegration is confirmed.

The following equation represents the ARDL bounds test:

$$\Delta GFCF_t = \sum_{i=1}^{p} a_i \, \Delta DBT_{t-i} + \sum_{j=o}^{q_1} \beta_j \Delta GOVEX_{t-j} + \sum_{i=0}^{q_2} \beta_i INFL_{t-i} + \sum_{l=o}^{q_3} \beta_l \Delta POP_{t-l} + \alpha_1 GFCF + \alpha_2 DBT + \alpha_3 GOVEX + \alpha_4 INFL + \alpha_5 POP + \varepsilon_t$$

Δ refers to the first-difference operator, The coefficients $a_i, \beta j, \beta_i, \beta_l$ refer to the short-run dynamic coefficients, while α_1 to α_6 denote the long-run relationship coefficients, ε_t denotes the error term. Once the cointegration is established, the long-run coefficients are obtained from the level terms in the ARDL model while the short-run dynamics from the differenced terms. The Error Correction Term (ECM) is included to indicate the speed of adjustment toward long-run equilibrium after a disturbance. Jarque-Bera test is employed to verify the normality of residuals, Breusch-Godfrey LM is used to test autocorrelation, and Breusch-Pagan is applied to examine the heteroskedasticity. Moreover, we conduct the cumulative sum of squares test (CUSUMQ) to assess the stability of the ARDL model over the period of study.

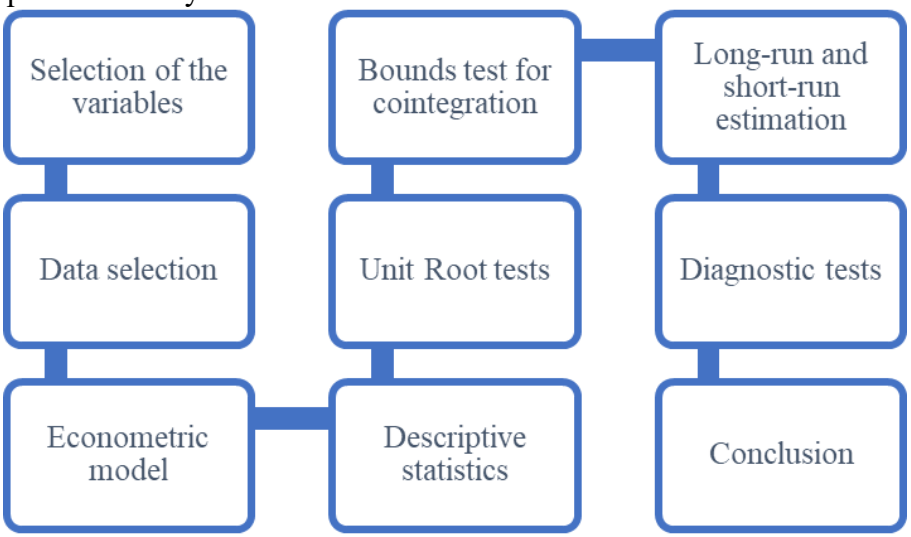


Fig.2. Flowchart of the study

Results and discussion

Table 2 presents the descriptive statistics for the variables employed in the study. The results show that gross fixed capital formation has an average value of 26.02% of GDP, with a standard deviation of 2.38%, suggesting moderate fluctuations in investment activity. The minimum and maximum values, 21.78% and 31.27%, respectively, indicate that Morocco experienced both periods of lower and higher capital accumulation during the study period. Public debt records a mean of 60.61% of GDP, with a standard deviation of 8.87%, and values ranging between 42% and 74.7%, highlighting a relatively high but variable debt ratio. Government expenditure averages 2.47%, with a standard deviation of 5.24% and extreme values between –9.10% and 21.57%, reflecting strong fiscal variations over time. Regarding inflation, the mean value stands at 2.59%, with a standard deviation of 2.19%, and a range between 0.30% and 7.99**%**, indicating

moderate but noticeable price volatility. Finally, population growth presents a mean of 1.33%, a low standard deviation of 0.21%, and values varying between 0.97% and 1.81%, illustrating steady demographic dynamics in Morocco throughout the observation period.

Table 2. Descriptive Statistics

Parameter	Mean	Std. Dev	Min	Max
GFCF	26.02033	2.375884	21.78203	31.26829
DBT	60.60571	8.870007	42	74.7
GOVEX	2.473179	5.237959	-9.101539	21.57288
INFL	2.594138	2.190673	0.303386	7.986166
POP	1.326268	0.2084438	0.9728276	1.80544

Table 3 reports the results of the unit root tests performed using both the Augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) methods to assess the stationarity of the variables. The results reveal that government expenditure is stationary at level, indicating integration of order I(0), with both ADF and PP tests showing significance at conventional levels. Meanwhile, gross fixed capital formation and public debt are non-stationary at level but become stationary after first differencing, confirming their integration of order I(1). The same case goes for inflation and population growth, they are also integrated of order I(1), as both series only achieve stationarity after first differencing under the two tests.

Overall, the outcomes confirm a mixture of I(0) and I(1) variables, with no variable integrated of order two I(2). This justifies the use of the Autoregressive Distributed Lag (ARDL) model, which is suitable for datasets containing variables that are either stationary at level or at first difference.

Table 3. Unit Root Test Results (ADF and PP).

Parameter	Test type	Level (p-value)	First Difference (p-value)	Order of Integration
GFCF	ADF	0.7268	0.0063	I(1)
	PP	0.6140	0.0000	
DBT	ADF	0.9729	0.0152	I(1)
	PP	0.9059	0.0000	
GOVEX	ADF	0.0021	-	I(0)
	PP	0.0000	-	
INFL	ADF	0.1222	0.0003	I(1)
	PP	0.0921	0.0000	
POP	ADF	0.1774	0.0028	I(1)
	PP	0.2100	0.0153	

Bolded p-values denote rejection of the null hypothesis at the 5 % level.

Table 4 displays the results of the ARDL bounds test for cointegration**.** The results show that F-statistic value of 4.796 exceeds the upper critical bound value of 4.01 at the 5% significance level**,** which leads to the rejection of the null hypothesis of no long-run relationship among the variables. This result confirms the existence of a stable long-run cointegration between the gross fixed capital formation and the explanatory variables included in the model.

Table 4. Bounds Test for Cointegration

Test statistic	Value	I(0) Bound	I(1) Bound	Conclusion
F-statistic	4.796	2.86	4.01	Cointegration exists
K = 4				

Table 5 presents the detailed results of the ARDL estimation, revealing both the long-run and short-run links between gross fixed capital formation and its explanatory variables.

In the long-run dynamic, the outcomes indicate that public debt has a statistically significant and negative effect on investment, with a coefficient of –0.2407 significant at the 1% level, which implies that a 1 percentage point rise in the debt-to-GDP ratio is associated with a decline in investment by approximately 0.24 percentage points in the long-run. This finding suggests that rising public debt discourages private and public investment in Morocco over the long-term, possibly due to crowding-out effects, higher interest rates, or the redirection of resources toward debt servicing rather than productive capital expenditure, this results goes hand in hand with the ones found by Asif & al. (2024) and Hakimi & al. (2019) and Mabula & al. (2019) who found that high public debt tends to crowd out private investment, since it imposes a great burden on the economy and leads to higher future taxation to finance debt servicing, which discourages private sector activity. Meanwhile, government expenditure exerts a positive influence on GFCF (0.1523), implying that public spending can stimulate investment activity by improving infrastructure and boosting aggregate demand. Similarly, inflation has a positive and significant coefficient which indicates that moderate inflation may enhance investment performances in the long-run, as it can increase nominal returns and stimulate business activity when price expectations remain stable. In contrast, population growth has a negative and significant impact (–0.5074, significant at 5%), suggesting that rapid demographic expansion might reduce per capita investment or strain public resources, leading to reduced capital formation.

In the short-run, public debt presents a positive and significant relationship with investment (0.1362, significant at 5%), indicating that short-term borrowing can temporarily boost capital formation, which may reflect the trajectory of the borrowed value, in other way the financing of

ongoing infrastructure projects or fiscal stimulus measures. However, this effect may not be persistent in the long-term if debt levels become unsustainable. Evidence from studies done on other countries such as the research of Tarawalie & al. (2021), who found that external debt is seen as capital that increases investment, bridges the financing gap, and promotes growth, and also Marmullaku & al. (2021) who have also found that public debt has a positive impact on growth and this is achieved through public investment. The non-existence of certain variables in the short-run estimation table is due to the optimal lag selection procedure of the ARDL model, which automatically excludes short-run dynamics that are statistically insignificant. This indicates that short-term variations in these variables do not contribute meaningfully to explaining investment fluctuations for the case of Morocco, however their long-run effects remain significant.

The error correction term (ECM) has a negative and highly significant coefficient (–0.5070, $p < 0.01$), confirming the existence of a stable long-run equilibrium between GFCF and its determinants. The coefficient magnitude implies that approximately 50.7% of any disequilibrium from the previous year is corrected within the current period, demonstrating a moderate adjustment speed toward equilibrium.

Finally, the model shows a strong explanatory power, with an R^2 of 0.8444 and an adjusted R^2 of 0.8085, indicating that about 81% of the variation in investment is explained by the independent variables. Overall, the results reveal that while short-term debt accumulation can stimulate investment, excessive debt amounts have a negative impact on Morocco's long-run investment capacity, to that can be added the fact that well-targeted government expenditure and moderate inflation may support capital formation.

Table 5. Results of ARDL long- and short-run analysis.

Variables	Coefficient	t-Statistic	p-value
Long-run relationship			
DBT	-0.2406662 ***	4.75	0,000
GOVEX	0.1522971 *	1.72	0,097
INFL	0.4715598**	2.20	0,037
POP	-0.507377**	-2.35	0,027
Short-run dynamics			
DBT	0.1362082 **	2.73	0.011
Constant	23.13015 ***	4.01	0.000
Error Correction Term (ECM)	-0.5070044 ***	-4.35	0.000
R-SQUARED	0.8444		
Adjusted R-squared	0,8085		

Note: *p < 0.10, **p < 0.05, ***p < 0.01

Table 6 displays the findings of the diagnostic tests performed to evaluate the statistical reliability of the ARDL estimation. Firstly, the Jarque–Bera test for normality of residuals produced a statistic of 2.04 with a p-value of 0.36, which indicates that the residuals are normally distributed. Secondly, the Breusch–Godfrey LM test for autocorrelation, applied with two lags, yielded a Chi-square statistic of 2.017 and a p-value of 0.3647. This result fails to reject the null hypothesis of no autocorrelation, suggesting that the residuals are free from serial correlation. Finally, the Breusch–Pagan–Godfrey test reported a Chi-square statistic of 0.74 with a p-value of 0.3905, confirming the presence of homoscedasticity. Collectively, the findings of these diagnostic tests provide strong evidence that the ARDL model is well specified and statistically reliable.

Table 6. Diagnostic Tests

Test	Statistic	p-value	Conclusion (5%)
Jarque-Bera test	2.04	0.3600	Residuals normal
Breusch-Godfrey LM test (lag=2)	2.017	0.3647	No autocorrelation
Breusch-Pagan- Godfrey test	0.74	0.3905	Homoscedasticity

Figure 4 reports the outcome of CUSUMQ test used to assess the structural stability of the ARDL model. The findings show that the CUSUMQ statistics stays within the 5% significance bounds over the entire sample, indicating no evidence of structural breaks or parameter instability. This implies that the estimated coefficients remain stable over time, enhancing confidence in the robustness of the model's long-term equilibrium and short-term dynamics. Moreover, the visual trajectory reveals a smooth cumulative variance, with no sudden deviations beyond the confidence limits, which fulfills a key assumption for valid inference in time series analysis.

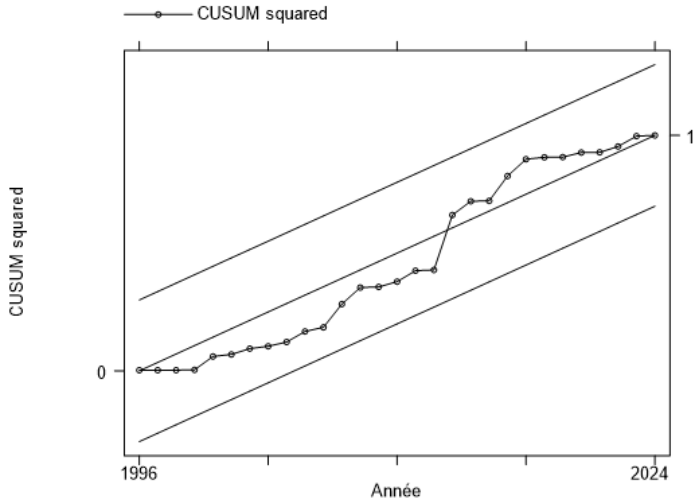


Fig. 4. CUSUM of Squares Tests

Conclusion

Our study investigates the relationship between public debt, government expenditure, inflation, population growth and investment performance in Morocco over the period 1990 - 2024, using gross fixed capital formation as the dependent variable. The Autoregressive Distributed Lag approach was employed to capture both short- and long-run dynamics over the study period. As a preliminary step, the Augmented Dickey–Fuller and Phillips–Perron unit root tests were conducted, revealing a mix of I(0) and I(1) variables, thereby justifying the use of the ARDL model. The bounds test results confirmed the existence of a long-run cointegrating relationship between investment and its macroeconomic determinants.

In the long-run, the estimates indicate that public debt exerts a statistically significant and negative effect on GFCF, implying that higher debt ratios tend to crowd out productive investment in Morocco. Conversely, government expenditure and inflation exert positive effects, suggesting that productive public spending and moderate inflation can stimulate investment through improved infrastructure and higher aggregate demand. Population growth, however, exerts a negative and significant impact on investment, reflecting the potential strain of demographic pressures on capital formation and public resources.

In the short-run, the results reveal a positive and significant relationship between public debt and GFCF, indicating that temporary borrowing may support investment financing, particularly for infrastructure projects. Nevertheless, this short-term benefit may not be sustainable if debt levels continue to rise without productivity gains. The negative and significant error correction term confirms a stable adjustment process toward long-run equilibrium.

To assess the robustness of the estimated ARDL model, a series of diagnostic tests were carried out. The results of the Jarque–Bera, Breusch–Godfrey LM, and Breusch–Pagan–Godfrey tests confirmed that the residuals follow a normal distribution, indicated the absence of serial correlation and heteroskedasticity, respectively. Furthermore, the CUSUMQ tests demonstrated that the model's parameters remained stable over the entire sample period reinforcing the validity of the long and short-run estimates.

Overall, these findings highlight the dual nature of public debt in Morocco's investment dynamics, while short-term borrowing can stimulate capital formation, excessive and persistent indebtedness undermines long-run investment potential. Based on these results, several policy recommendations can be drawn. Borrowed resources must be allocated to productive, growth-enhancing projects capable of generating long-term returns in employment and output. Simultaneously, support for private sector investment should be reinforced, particularly for firms most exposed to fiscal tightening or

economic disruptions such as the COVID-19 pandemic. Measures aimed at improving the business environment, enhancing access to finance, and fostering innovation and competitiveness are essential to enable firms to sustain growth even under fiscal constraints. Although external borrowing can provide short-term resources for public investment, excessive dependence on debt entails significant long-term risks such as reduced fiscal space, greater vulnerability to external shocks, and diminished capacity to invest in strategic development sectors. Therefore, rigorous and transparent debt management is crucial to ensure that public borrowing contributes to sustainable investment and economic growth.

Public debt should be used primarily to finance projects that yield tangible economic and social benefits, thereby strengthening Morocco's productive capacity and enhancing citizens' well-being. Future research could extend this analysis by incorporating institutional quality, fiscal transparency and budget governance variables to better understand how governance frameworks shape the effectiveness of public debt and investment policies in Morocco.

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Data Availability: All data are included in the content of the paper.

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