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Twin Deficits Hypothesis in Algeria

فرضية العجز التوأم في الجزائر

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Article abstract:

Algeria has consistently faced challenges with deficits in both its current account and government budget. This study explores the link between government budget and current account deficits from 1990 to 2022, this study examines the effect of fluctuations in the Algerian government's budget on its current account, utilizing the autoregressive distributed lag (ARDL) model. Findings confirm a persistent positive link between budget and current account deficits, validating the twin deficits hypothesis in Algeria's economy.

Key words : *Twin deficits; Government budget; Current account; ARDL approach; Algeria.*

ملخص المقال:

تواجه الجزائر بشكل مستمر تحديات مرتبطة بعجزي الحساب الجاري والميزانية العامة للحكومة. تهدف هذه الدراسة إلى استكشاف العلاقة بين عجز الميزانية العامة وعجز الحساب الجاري خلال الفترة الممتدة من 1990 إلى 2022، تعتمد الدراسة على نموذج الانحدار الذاتي للفجوات الزمنية الموزعة ($ARDL$) لتحليل تأثير تقلبات ميزانية الحكومة الجزائرية على الحساب الجاري. وقد أكدت النتائج وجود علاقة إيجابية مستمرة بين عجز الميزانية وعجز الحساب الجاري، مما يدعم صحة فرضية العجز التوأم في الاقتصاد الجزائري.

كلمات مفتاحية: العجز التوأم؛ الميزانية العامة؛ الحساب الجاري؛ منهجية **ARDL**؛ الجزائر.

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Introduction

Maintaining economic balance is essential for nations seeking both internal and external stability while mitigating the impacts of economic disruptions. The balance of payments is essential as it reflects the economic and financial health of a country to the external world. Its continual imbalance, whether as a surplus or deficit, poses significant risks to a nation's economic stability. The general government budget, a key financial document, aims to fulfill the state's economic, social, and political objectives. However, there is debate over whether this budget should be balanced, reflecting differing views among various economic schools.

Historical perspectives vary, with traditional economists stressing the importance of balanced budgets and viewing deficits as a critical economic issue. It leads to inflation and bankruptcy. Keynesian economics posits that financial deficits can positively impact consumption and aggregate demand, viewing government spending multipliers as a strategic tool to counteract economic downturns. In contrast, numerous economies, both developed and developing, have simultaneously experienced imbalances in their balance of payments and general government budgets.

This study investigates the twin deficits hypothesis in Algeria by examining the relationship between government budget deficits and current account deficits from 1990 to 2022. While economists like Keynes, Mundell, and Fleming affirm this linkage, attributing budget deficits to current account imbalances, others, including Ricardo and Barro, challenge this perspective. The analysis addresses the key question:

- What is the relationship between Algeria's government budget deficits and its current account during this period?
- How do variations in the Algerian government budget influence the current account within this period?
- Is the twin deficits hypothesis applicable to Algeria's economic situation?

To answer the forementioned questions, we suggest the following hypotheses:

- Algeria's budget deficit has a direct positive impact on its current account balance.
- The Twin Deficits Hypothesis is validated in Algeria as the budget deficit significantly contributes to the current account deficit.

This study confirms the twin deficits hypothesis in Algeria, analyzing the causal relationship between budget and current account deficits from 1990 to 2022. Using the ARDL model and Eviews software, the research highlights the dynamic interaction between fiscal indicators and their economic implications.

That is because its design permits dealing with statistical problems that stems from estimating the model of regression especially (autocorrelation, multicollinearity, heteroskedasticity, and errors invariables). It is also preferable to use this program with time series data.

The article is structured as follows: Section 2 provides the theoretical framework, drawing on models such as Fleming-Mundell; Section 3 reviews related empirical studies; Section 4 details the data, methodology, and key findings; Section 5 concludes with implications and recommendations based on the study's outcomes.

1. Theoretical Background

Theoretically, budget balance and current account balance relationship has been clarified in different ways.

According to the absorption theory and the open economy theory by Fleming-Mundell, there is a presumed positive correlation between budget and current account deficits. Iwanthika & Sandy (2021) explain under the Fleming-Mundell model that an increased budget deficit can reduce national savings, leading to higher real domestic interest rates. This rise in interest rates attracts foreign capital, which appreciates the local currency, making exports more expensive and imports cheaper.

In a fixed exchange rate system, the central bank prevents the domestic currency from appreciating by absorbing the surplus of foreign currency, while simultaneously supplying domestic currency to purchase foreign currency, thereby maintaining a stable rate. To further explore the dynamics of economic deficits, it's noted that an increase in the supply of domestic currency elevates the money supply, potentially leading to a long-term rise in price levels. According to Iwanthika & Sandy (2021), this price increase enhances the real value of the domestic currency, which can reduce exports and increase imports, thus contributing to twin deficits. This analysis extends the discussion on the twin deficits hypothesis by incorporating various economic perspectives. While the Keynesian view posits that a rise in budget deficits increases domestic absorption, income, and consequently, imports—aggravating the current account deficit (Banday & Aneja, 2019)—the Feldstein-Horioka framework relates twin deficits to the extent of international capital mobility and domestic investment sources (Banday & Aneja, 2019).

When capital mobility is high, current account and budget deficits tend to move in identical directions, indicating a weak connection between domestic investment and savings. Conversely, in developed countries with optimal capital mobility and a strong savings-investment link, these deficits may diverge, potentially invalidating the Twin Deficits Hypothesis (Mohamed, 2020).

Another explanation was given by Poterba and Summers (1988) in their current account targeting hypothesis (CATH). This hypothesis suggests that in order to stabilize the economic activity, the automatic stabilizer and the discretionary fiscal policies are applied. Enhancing external economic competitiveness can help mitigate these imbalances and improve the government's fiscal stance.

In contrast, the Ricardian Equivalence Hypothesis (REH) articulated by Barro (1989) challenges this, stating that budget deficits in an open economy do not affect the current account balances, as fiscal movements neither influence nor are influenced by changes in the current account.

Barro (1989) suggests that alterations in the governmental tax framework do not impact real interest rates, investments, or consumption due to the life cycle model where consumption patterns depend on anticipated lifetime income (Modigliani and Ando, 1957). Additionally, Milton Friedman (1957), in his permanent income hypothesis, posited that only an increase in permanent income will result in a rise in private consumption (Friedman, 1957). This suggests that a transitory boost in income resulting from tax reductions or deficit-funded governmental expenditure will not enhance consumption but rather elevate private savings (Barro, 1989). As private savings increase, the necessity for foreign capital influx diminishes. A current account deficit will not occur in this instance (Banday & Aneja, 2019).

The relationship between a nation's current account balance and its government budget is mathematically articulated through the formula (Iwanthika & Sandy, 2021):

$$GNI = C + I + G + NX + NFI \qquad (1)$$

Where, GNI: gross national income; C: private consumption; G: government expenditure; I: investment; NX: net exports, and NFI: Net factor income from abroad.

Current account is -defined in terms of net exports and net factor income from abroad in the equation below: $CA = NX + NFI$ (2)

Replacing eq. (2) in eq. (1) produces eq. (3):

$$GNI = C + I + G + CA \quad (3)$$

The second equation, gross national income is equal to the sum of private consumption (C), private savings (S) and taxes (T) as follows (Islam, 1998):

$$GNI = C + S + T \quad (4)$$

Overlapping the Eq. 3 with Eq. 4 yields Eq.5 (Mohanty, 2019):

$$C + S + T = C + I + G + CA \quad (5)$$

Substitutionally, Eq. 5 can be expressed as:

$$(S - I) + (T - G) = CA \quad (6)$$

The difference between T and G is equal to government budget balance (GB = T – G), Eq. (6) (Epaphra, 2017):

$$CA = (S - I) + GB \quad (7)$$

From the equation above, current account (CA) is equal to government budget balance (GB) plus net private savings which means there is a relationship between government budget and current account (Iwanthika & Sandy, 2021).

2. Recent Empirical Literature Review

This section reviews studies exploring the relationship between budget and current account deficits, highlighting research such as Mohanty's (2019) ARDL-based analysis in India, which supports the Twin Deficits Hypothesis, and Vamvoukas's (1999) examination of Greece's fiscal and trade deficits.

Utilizing cointegration analysis, ECM, and Granger trivariate causality, he found a primarily unidirectional causality from budget deficits to trade deficits, aligning with Keynesian predictions. This suggests that policy initiatives that can diminish the budget deficit may also facilitate the lowering of the trade imbalance (Vamvoukas, 1999).

Banday and Aneja (2019) analysed China's fiscal and current account deficits from 1985 to 2016 using ARDL bounds testing and Granger causality tests. Their findings confirmed the Keynesian hypothesis, establishing a connection between the deficits in both short- and long-term contexts (Banday & Aneja, 2019).

Neaime (2015) focused on the sustainability of Lebanon's external and internal public debts, alongside exchange rate policies, examining the Twin Deficits Hypothesis from 1970 to 2013. Using Augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) tests, along with Johansen co-integration tests, he found Lebanon's public debt and exchange rate policies unsustainable. (Neaime, 2015).

To address debt sustainability and the twin deficits issue, policymakers in Lebanon must earnestly implement necessary fiscal adjustment measures by enhancing national savings, lowering domestic interest rates, increasing private savings rates, enhancing the tax collection system, and introducing austerity measures (Neaime, 2015).

In contrast, Ogbonna (2014) investigated the twin deficits hypothesis in South Africa from 1960 to 2012 using co-integration analysis and VAR Granger non-causality tests, finding no evidence of a link between budget and current account deficits, even in the short term. Ogbonna suggested that tracking fiscal deficit changes through the current account balance might be a more effective approach than relying solely on fiscal policy to influence the current account balance.

Table 1: A summary of previous empirical research looking into the relationship between government budget and current account

Author	Country	Period	Methodology	Empirical Results
Some selected emerging and developing countries				
(Alkswani, 2000)	Saudi Arabia	1970-1999	Engle-Granger Cointegration test (1987), Johansen Cointegration test (1995), Granger Causality test (1969)	Tarde deficit causes budget deficit
(Mansouri, 2001)	Morocco	1967-1997	Engle-Granger Cointegration test, Johansen Cointegration test, Granger Causality test	bi-directional relationship
(Saleh, Mahendhiran, & Tikiri, 2005)	Sri Lanka	1970-2003	ARDL	In the long-term: TDH
(Merza, Mohammad, & Ala, 2012)	Kuwait	1993: Q4 - 2010: Q4	VAR model Johansen Cointegration test, Granger Causality test	A negative long-term relationship running from CA to GB the TDH was rejected
(Sobrino, 2013)	Peru	1980: Q1-2012: Q1	Granger Causality test The variance decomposition and the impulse responses functions	The TDH was rejected In the short term: CA has positive effect on GB
(Helmy, 2018)	Egypt	1975-2014	VAR, VECM Granger Causality test	CATH
(Ncanywa & Thanaga, 2019)	South Africa	1994-2016	ARDL model Granger Causality test	In the short term:TDH In the long term: The Ricardian's equivalence

Note: TDH: Twin deficit hypothesis; CATH: Current Account Targeting hypothesis; CAD: Current Account Deficit; GB: Budget Deficit; Q: Quarterly.

3. Data, Methodology, and Results

This section examines the Twin Deficits Hypothesis in Algeria by analyzing the relationship between the government budget balance (GB) and current account balance (CA), both as percentages of GDP, using IMF data from 1990 to 2022.

Table 2: Algerian government budget balance and Algerian current account balance from 1990 to 2022

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Algerian government budget balance (GB percent of GDP)	3,6	1,7	-1,1	-8,5	-4,4	-1,4	2,9	2,4	-3,8	-2	9,7
Algerian current account balance (CA Percent of GDP)	2,2	5,1	2,6	1,6	-4,3	-5,3	2,7	7,2	-1,9	0	16,7
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Algerian government budget balance (GB percent of GDP)	3,4	0,2	7,8	6,9	11,9	13,5	4,9	8,2	-7,2	-1,5	-1,2
Algerian current account balance (CA Percent of GDP)	12,9	7,7	13	13	20,5	24,7	22,7	20,1	0,3	7,5	9,9
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Algerian government budget balance (GB percent of GDP)	-4,4	-0,9	-8	-15,7	-13,4	-8,6	-6,8	-9,6	-11,9	-7,2	2,2
Algerian current account balance (CA Percent of GDP)	5,9	0,4	-4,4	-16,4	-16,5	-13,3	-9,7	-9,9	-12,8	-2,8	7,2

Source: International Monetary Fund.

ARDL model is employed using Eviews software, ideal for examining dynamic relationships within time series data via a single equation framework.

$$y_t = \delta + \delta_0 x_t + \delta_1 x_{t-1} + \delta_2 x_{t-2} + \cdots + \delta_q x_{t-p} + v_t.$$

ARDL model distinguishes between short-term and long-term relationships within the dataset (Kripfganz & Daniel, 2023).

3.1. The Conditions of ARDL Model

3.1.1. The time series must be stationary at levels I(0) or I(1), or a combination of both. The model is not applicable if the series are stationary at level I(2).

Hypothesis Testing for Stationarity:

H0: The unit root exists if the test statistic is less than the critical value, indicating a significance level above 0.05, thus the series are non-stationary.

H1: The unit root does not exist if the test statistic is greater than the critical value, indicating a significance level of 0.05 or less, thus the series are stationary.

Table 3: The Unit Root Test for Algerian current account

Variables	Stationarity of times series at level					Stationarity of times series at the first difference					I(..)
	lag	Model	tφ	T_{CV}	Probability at 5%	lag	Model	tφ	T_{CV}	Probability at 5%	
CA	8	Model 6	-1.840471	-3.557759	0.6612	8	Model 6	4.864965-	3.562882-	0.0024	I(1)
	8	Model 5	-1.792917	-2.957110	0.3771	8	Model 5	4.968597-	2.960411-	0.0003	
	8	Model 4	-1.708752	-1.951687	0.0826	8	Model 4	5.056039-	1.952066-	0.0000	

Source: Elaborated by the writers from Eviews 10 output

The analysis showed that the original series were non-stationary, with test statistics below the critical values. Stationarity at the first difference, indicated by test statistics surpassing critical values for models 4, 5, and 6, validates the analysis of both long-term and short-term relationships between Algeria's government budget balance and current account.

Table 4: Unit Root Test for Algerian Government budget

Variables	Stationarity of times series at level					Stationarity of times series at the first difference					I(..)
	lag	Model	tφ	T_{CV}	Probability at 5%	lag	Model	tφ	T_{CV}	Probability at 5%	
GB	8	Model 6	2.445535-	3.557759-	0.3510	8	Model 6	6.067255-	3.562882-	0.0001	I(0)
	8	Model 5	2.400235-	2.957110-	0.1496	8	Model 5	6.166396-	2.960411-	0.0000	
	8	Model 4	2.387630-	1.951687-	0.0186	8	Model 4	6.280995-	1.952066-	0.0000	

Source: Elaborated by the writers from Eviews 10 output

The data demonstrates stationarity, with the test statistic surpassing the critical value, rejecting the null hypothesis and affirming the alternative hypothesis of no unit root, as confirmed by the fourth model.

ARDL model requires a sample size of at least 30 observations to accommodate multiple lags for both dependent and independent variables (n-p), which consequently reduces the degrees of freedom (DF). In this analysis, the sample size is adequate at 32 observations.

3.1.2. Error Correction Factor in the temporary model must be negative and significant and that after the assurance of the existence of a longitudinal relationship. And this assurance comes from boundary testing.

Table 5: Error Correction Model Test Results

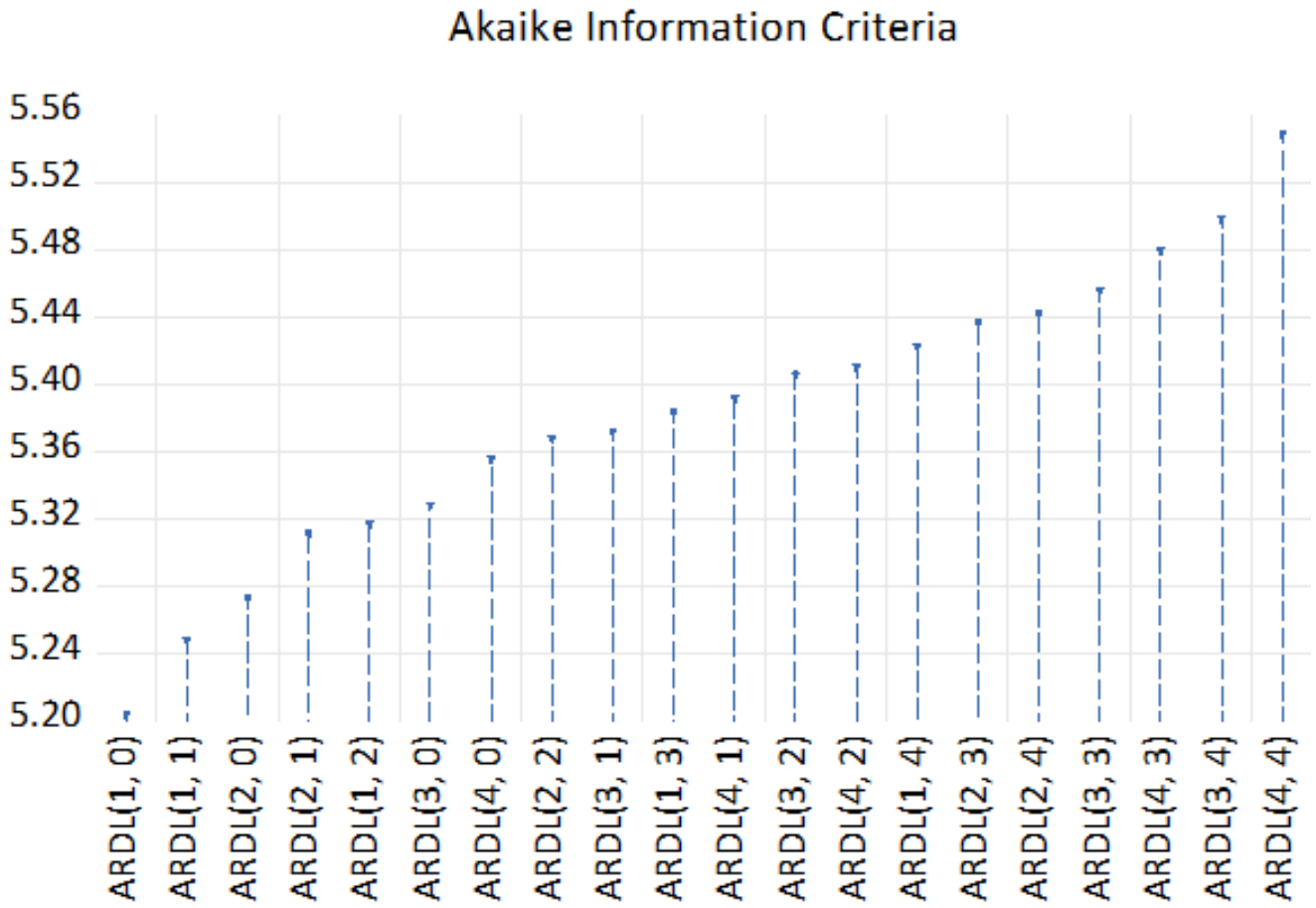
ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CointEq(-1)*	-0.632347	0.054986	-11.50013	0.0000

Source: Output of Eviews 10

3.1.3. The error correction parameter of -0.632347, being negative and statistically significant, alongside the selection of ARDL (1,0) model based on minimal AIC values, confirms the model's suitability and efficiency for analyzing the dynamics under study.

Figure 1: Akaike Information Criteria



Source: Output of Eviews 10

ARDL model (1,0) has been identified as the optimal model for analyzing the phenomenon due to its minimal AIC value.

3.1.4. The ARDL model's residuals show no autocorrelation and maintain homogeneity of variance, confirming the model's reliability.

3.1.4.1. Test for Autocorrelation in Residuals

H0: there is not autocorrelation errors, significant level greater than 0.05.

H1: there is autocorrelation between errors, i.e. level of significance is smaller or equal to 0.05.

Table 6: Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.773814	Prob. F(2,27)	0.4712
Obs*R-squared	1.734788	Prob. Chi-Square(2)	0.4200

Test Equation:
Dependent Variable: RESID
Method: ARDL
Date: 08/21/23 Time: 00:42
Sample: 1991 2022
Included observations: 32
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CA(-1)	0.015281	0.073867	0.206868	0.8377
GB	-0.032494	0.109495	-0.296761	0.7689
C	-0.146965	0.679101	-0.216412	0.8303
RESID(-1)	0.095348	0.199437	0.478085	0.6364
RESID(-2)	-0.244624	0.217924	-1.122519	0.2715

R-squared	0.054212	Mean dependent var	-1.43E-15
Adjusted R-squared	-0.085905	S.D. dependent var	3.081150
S.E. of regression	3.210766	Akaike info criterion	5.313497
Sum squared resid	278.3436	Schwarz criterion	5.542519
Log likelihood	-80.01596	Hannan-Quinn criter.	5.389411
F-statistic	0.386907	Durbin-Watson stat	1.983937
Prob(F-statistic)	0.816073		

Source: Output of Eviews 10

e F-value for the test for the absence of autocorrelation among residuals is 0.773814, with a significance value of 0.4712. This exceeds the critical threshold of 0.05, thereby retaining H0 which suggests there is no autocorrelation between errors.

3.1.4.2. Test for the absence of consistency of variance homogeneity

H0: There is no consistency in the homogeneity of variance, meaning the residuals exhibit constant homogeneity, with a significance level greater than 0.05.

H1: There is consistency of homogeneity of variance, i.e. the level of significance is smaller or equal to 0.05.

Table 7: Heteroskedasticity test results

Heteroskedasticity Test: ARCH

F-statistic	0.076018	Prob. F(1,29)	0.7847
Obs*R-squared	0.081048	Prob. Chi-Square(1)	0.7759

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 08/21/23 Time: 00:53
Sample (adjusted): 1992 2022
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.989393	2.770758	3.244381	0.0030
RESID^2(-1)	0.050786	0.184199	0.275714	0.7847

R-squared	0.002614	Mean dependent var	9.461908
Adjusted R-squared	-0.031778	S.D. dependent var	11.93379
S.E. of regression	12.12192	Akaike info criterion	7.890249
Sum squared resid	4261.289	Schwarz criterion	7.982764
Log likelihood	-120.2989	Hannan-Quinn criter.	7.920407
F-statistic	0.076018	Durbin-Watson stat	2.019942
Prob(F-statistic)	0.784723		

Source: Output of Eviews 10

F-value is 0.076 with a significance level of 0.7847, which is greater than of 0.05. Therefore, H0 is accepted, indicating that the residuals are homogeneously constant.

3.1.5. Parameters of ARDL model must be significant.

3.2. Estimation of the Short-term ARDL Model

Table 8: Short-term ARDL model

Dependent Variable: CA
Method: ARDL
Date: 08/18/23 Time: 00:13
Sample (adjusted): 1991 2022
Included observations: 32 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): DEF
Fixed regressors: C
Number of models evalulated: 20
Selected Model: ARDL(1, 0)
Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CA(-1)	0.367653	0.065875	5.581035	0.0000
GB	1.050083	0.100640	10.43410	0.0000
C	3.495431	0.640815	5.454661	0.0000

R-squared	0.925280	Mean dependent var	3.262500
Adjusted R-squared	0.920127	S.D. dependent var	11.27182
S.E. of regression	3.185625	Akaike info criterion	5.244234
Sum squared resid	294.2981	Schwarz criterion	5.381647
Log likelihood	-80.90775	Hannan-Quinn criter.	5.289783
F-statistic	179.5576	Durbin-Watson stat	1.788085
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.

Source: Output of Eviews 10

The short-term ARDL (1,0) model shows:

- The current account balance shows a strong positive association with its previous value, demonstrated by a coefficient of 0.367.
- There is a notable positive relationship between the budget balance and the current account balance, with a coefficient of 1.050, indicating that a one-unit rise in the budget balance results in a 1.05 increase in the current account balance in the short term.
- The constant value of 3.495 implies that if the budget balance is zero, the current account balance would stand at 3.495.
- The model accounts for 92.52% of the variation in the current account balance, as reflected by an R-squared value of 0.9252.

-Short-term equation:

CA = 0.367652994811*CA(-1) + 1.05008338589*GB + 3.49543081827

3.3. The Long-term Relationship Test

H0: No long-term relationship exists if the computed F-value is below the critical F-value at 0.05 significance level.

H1: A long-term relationship is present if the computed F-value at 0.05 significance level.

Table 9: Bounds Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	41.24018	10%	3.02	3.51
k	1	5%	3.62	4.16
		2.5%	4.18	4.79
		1%	4.94	5.58
Actual Sample Size	32	Finite Sample: n=35		
		10%	3.223	3.757
		5%	3.957	4.53
		1%	5.763	6.48
		Finite Sample: n=30		
		10%	3.303	3.797
		5%	4.09	4.663
		1%	6.027	6.76

Source: Output of Eviews 10

The high F-statistic confirms a significant long-term link between the current account and the public budget deficit.

Table 10: Levels Equation

Levels Equation Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEF	1.660613	0.142331	11.66724	0.0000
C	5.527710	0.912874	6.055284	0.0000

EC = BP - (1.6606*DEF + 5.5277)

Source: Output of Eviews 10

Long-term equation for the ARDL model:

D(CA) = -0.632347005189*(CA(-1) - (1.66061257*GB + 5.52770993))

Concluding Remarks and Policy Recommendations

Changes in Algerian current account balance between 1990 and 2020 have coincided with Algerian government budget balance. During this period, both of the balances have witnessed simultaneous deficits several times, especially the last one when the deficits lasted for 7 years (2014 -2021). The interpretation of this phenomenon, however, remains a subject of debate among economists. Proponents of the twin deficits hypothesis like Keynez, Mundell, and Fleming advocate for a positive correlation between government budget and current account deficits.

Conversely, Ricardo and Barro contest this view, while Feldstein and Horioka propose two prerequisites for the hypothesis' validity: high capital mobility and a minimal correlation between domestic investment and savings.

The regression was analyzed. First, we investigated the existence of a short term relationship, and we have found that there is a significant short term relationship between Algerian government budget and Algerian current account estimated at 1.05. We estimated the short-term ARDL model as well as the obtained model can to explain 92.52% of the changes occurring in Algerian current account balance.

Second, we assessed the long term relationship, and we have found a significant long term relation existing between Algerian government budget and Algerian current account. The study confirms that in Algeria, government budget deficits have a direct and positive long-term impact on current account deficits, validating the twin deficits hypothesis within the country's economic context.

Algeria has suffered from two deficits in both current account and government budget balances several times in the study period (1990 – 2022). Thus, the Algerian state must seek to achieve balance on both levels. The improvement in Algerian government budget leads to improvement in Algerian current account. Hence, the Algerian government needs to improve and equilibrate the internal balance to equilibrate the external balance.

As the Algerian economy is a rentier economy, both balances are dependent on the fuel price. They ameliorate when the fuel price increases and vice versa. Algerian current account depends on the oil price since fuel represents more than 88% of the Algerian exports during the study period. Algerian government budget depends on the fuel price because more than 34% of the Algerian government revenue is from petroleum taxes.

To improve the government budget balance, Algeria government have to rationalize the public expenditure, increase the government revenue and diverse its sources regardless of the petroleum taxes. To ameliorate the current account balance, the Algerian government has to create alternatives to its imports, move away from mono-exports, and expand exports out of the fuel sector.

These will be achieved by boosting the Algerian economy and exploiting the available resources optimally from human resources to natural resources. A real development needs to be achieved, and strong economy has to be built in different sectors, so that the Algerian economy becomes no longer dependent on oil market validity.

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