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Analysis of the Relationship Between Internal and External Gaps and GDP in Iraq for the Period (2004-2022)

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Abstract:
This paper deals with studying the relationship between internal and external gaps and the gross domestic product in Iraq for the period (2004-2022), as the Iraqi economy suffers from a financing problem, and this problem has resulted in a weak link between the economic sectors, high inflation rates, as well as the inability of the economic policies followed to achieve the required financing, so the research problem can be clarified by asking about the impact of internal and external gaps on the gross domestic product. Inductive and quantitative approaches were adopted, which relied on the joint integration methodology to show the impact of internal and external gaps on the gross domestic product in Iraq for the period (2004-2022), and the (EViews13) program was used. According to the Phillips-Perron unit root test results, all variables are stationary at the level of the first difference but non-stationary at the second difference. This makes it possible to use the ARDL model. The existence of joint integration, or a long-term equilibrium relationship between the research variables, was validated by the ARDL model bounds test results. Practical implications include policy recommendations to reduce deficits and stabilize growth. Socially, it addresses economic disparities, promoting equitable wealth distribution and sustainable development by identifying key drivers of economic performance. This study provides a unique perspective by analyzing the dual influence of internal and external economic gaps on Iraq's GDP, offering data-driven insights for policymakers to foster sustainable economic growth.
Keywords: Internal And External Gaps, Gross Domestic Product (GDP), ARDL Model, Economic Sustainable Development

1. Introduction:

Savings is one of the most important economic topics that has received significant focus in economic analysis and studies regarding its connection to consumption on the one hand and to private and governmental investment on the other hand (Jawad, 2016). In the context of the promotion and maintenance of economic growth, most countries have noticed the importance of saving, which is the mainstay of investment. The latter is the engine of economic growth, through which economic activity is stabilized and capital formation is maintained (Alzghoul et al., 2023). Savings represent one of the most important economic indicators crucial in modern economic analysis, studies, and research (Al-Harishawi & Al-Dahlaki, 2024).

Savings and investment have been considered as two critical macroeconomic variables with microeconomic foundations for achieving price stability and promoting employment opportunities, thereby contributing to sustainable economic growth (Jamal & Sultana, 2023) ; (Ele & Michael, 2023).

Countries with higher rates of savings have had faster economic growth than those with lower saving rates; in that regard, the United Nations Conference on Trade and Development "Development and Globalization: Facts and Figures" 2 (2004) emphasizes that the main factor in increasing in-country capital is the increase of savings (Ribaj & Mexhuani, 2021). Individual savings behaviour has been a significant macroeconomic and policy issue throughout history. Empirical and theoretical studies demonstrate that several economic and demographic factors combine to provide long-term, sustainable economic growth, which leads to savings (Wanzala & Obokoh, 2024). According to the classical school, savings represent a limited amount of money that may be used to make investments, and interest rates eventually balance the two. From the standpoint of traditional economics, it only suggests that a lack of savings may have a negative impact on economic expansion (Osuka et al., 2024). Savings are crucial for economic development since it helps to stimulate the economic cycle. Previously, saving was described as setting aside a percentage of available income as a contingency for crises (Hamad & AI-Ahbabi, 2023).

Both savings and investment are crucial for macroeconomic balance and maintaining financial and price stability (Ihejirika, 2023). Public investment has a unique function. It is crucial as a supplement to private investment and does not solely arise from the delivery of public benefits. Numerous macroeconomic repercussions accompany the rise in governmental investment. First, it directly results in a commensurate rise in the gross domestic product (Milewicz, 2024).

One of the key tools for reducing the trade imbalance is exports, which also provide a foreign exchange arrangement that directly affects the central bank's foreign reserves. Depending on their competitiveness and financial potential, private agents decide whether to export their commodities to foreign markets or consume imported items. Another crucial element of GDP development is international trade (Ghauri et al., 2020). While imports are the purchase of commodities and services from other nations, exports are the selling of goods and services to other nations. Importing goods from one nation and exporting them to another is known as re-exporting (Ali et al., 2023).

The gross domestic product is regarded as one of the key and fundamental indicators that conveys the degree of economic activity in the nation and is connected to the productive economic activities that occur inside its borders (Abed et al., 2023).

GDP means "the sum of the monetary (market) value of all final goods and services produced within an economy during a given period, usually a year", as well as "the value of all goods and services produced within the geographical borders of a country by the country's citizens or foreigners (Hamad, 2022a).

Since economies began exporting, it has been critical to assess exports' role in a country's economic development. Exports are viewed as a means of achieving economic expansion, particularly for the world's leading exporting countries. After dismantling trade barriers in several economies, employment possibilities have expanded, and manufacturing costs have decreased when production is done in bulk. This has raised the GDP of the economies, which has improved the overall economy (Chauhan, 2021). Researchers have carefully studied the elements influencing GDP growth for many years, which is a crucial indication of a society's economic performance (Najafi Bousari et al., 2023).

Because they have a significant impact on the most significant macroeconomic variables of nations, including GDP, inflation, and unemployment, developed nations strive to improve it in every way they can and allocate financial resources to support all their projects. This frequently results in what are known as internal and external gaps. The magnitude of a nation's internal and external disparities is influenced by various factors, including external ones like financial crises, trade agreements or sanctions, and changes in international trade. In addition, since Iraq is primarily dependent on the production of oil and its sale in international markets, domestic variables like taxes and financial policies also have a role.

The current research deals with studying the relationship between internal and external gaps and the gross domestic product in Iraq for the period (2004-2022), as the Iraqi economy suffers from a financing problem, and this problem has resulted in a weak link between the economic sectors, high inflation rates, as well as the inability of the economic policies followed to achieve the required financing, so the research problem can be clarified by asking about the impact of internal and external gaps on the gross domestic product.

The purpose of this study is to measure the impact of internal and external gaps on some macroeconomic variables using the ARDL method. Additionally, This study explores how internal and external gaps impact Iraq's GDP (2004–2022). Practical implications include policy recommendations to reduce deficits and stabilize growth. Socially, it addresses economic disparities, promoting equitable wealth distribution and sustainable development by identifying key drivers of economic performance

2. Literature Review and Hypothesis Development:

The purpose of the study (Maala, 2014) was to ascertain the influence of the key economic factors that contribute to the creation of the foreign trade gap and GDP, as well as how these factors affect the balance of the Iraqi economy and the need to lower the level of economic exposure through policies and measures that would diversify the export base and boost its volume. The components of GDP, which are represented by government spending, investment spending, net exports, consumer spending, and higher national income, were found to be strongly correlated.

A study by Kadhim (2020) examined the notion that, in the case of high and steady savings rates, investment in Iraq makes a substantial contribution to economic growth. The study looked at the connection between savings and investment, which has significant ramifications for raising national savings to fund regional investments required to boost economic growth. The study came to several conclusions, chief among them being that the Iraqi economy is a one-sided one that is mostly dependent on the profits from crude oil.

The study's goal (Velaj & Bezhani, 2022) was to determine how imports, exports, and gross fixed capital formation affect Albania's GDP growth. The National Institute of Statistics provided the statistical data, which spans the years 2000–2020. The formula for calculating GDP using the expenditure technique is GDP = C + I + G + NX. Theoretically, if the number of net exports is positive, we have more exports than imports. This implies that it has a favorable effect on the GDP growth of the nation.

According to a study (Jazza & Faraj, 2022), the GDP of Iraq has seen noticeable changes over the last thirty years, with fluctuations between increases and decreases. This is regarded as a regular occurrence because of the influence of the events that occurred in Iraq during that time, and the size of the GDP at current prices took A rising trend that will reach $178.198 billion by 2020.

The findings of a study by (Hamad, 2022b) on the relationship between capital formation and savings and their direct effects on the gross domestic product for the years 1990–2022 in the State of Singapore showed that, according to the joint integration test (Johansen), there is a long-term equilibrium relationship between gross fixed capital formation, total savings, and economic growth; consequently, there will be an increase in Singapore's gross domestic product and an increase in economic growth rates.

The study (Omarya, 2023) examines the connection between imports, exports, and Palestinian GDP. This was done using annual data from 2000 to 2020. The Johansen test for cointegration analysis was used to estimate a VAR model, and Granger causality tests were performed. According to the findings of the research using the Ordinal Least Squares (OLS) regression test, the Granger test revealed that there is no causal association between GDP, imports, and exports. Furthermore, the VAR test revealed that exports little affect GDP. Nonetheless, it is anticipated that imports will increase Palestine's GDP. These findings show that imports affect GDP, suggesting that they have a role in Palestine's economic growth.

In research by (Bai, 2023), he used EViews software and an econometric analytic approach to assess GDP and gross savings data in China from 1952 to 2021. He develops a straightforward linear regression model that demonstrates the existence of heteroscedasticity and autocorrelation.

Using the ARDL cointegration approach, a study by (Sunde et al., 2023) examined how trade openness, imports, and exports affected Namibia's economic growth. The findings indicate that whereas exports and trade openness have positive and significant connections with economic growth, imports have a considerable negative link with it. Furthermore, trade openness, imports, and exports are the main drivers of short-term economic growth. The findings imply that export-led growth and trade liberalization are essential to Namibia's economic success. The trade theory, which highlights the significance of engaging in international markets through more significant exports and trade, is supported by this study.

According to a study by (Šubová et al., 2024), empirical analyses indicated a long-term relationship between savings rates and real GDP in Hungary (1996-2021).

A study by (Al-Harishawi and Al-Dahlaki, 2024) sought to determine how the effectiveness of local savings affected the amount of gross domestic product per capita income and to examine the possible effects on local income distribution. The most significant findings demonstrated a direct correlation between the average per capita share of the gross domestic product and the local resource gap and an inverse relationship between the financing gap and the average per capita share of the gross domestic product. Additionally, increasing the efficiency of local savings is linked to increasing local investments, which raises per capita income. The groundbreaking study by Feldstein-Horioka (1980) (henceforth referred to as FH) examined the connection between domestic savings and investment between 1960 and 1974 when capital flows were comparatively constrained. Contrary to the presumptive hypothesis that the correlation between domestic savings and investment would decrease with capital account liberalization, the FH analysis showed that the correlation between domestic savings and investment in OECD countries remained high (OHTA, 2024). The study (Sojoodi & Baghbanpour, 2024) examined and contrasted the relationship between GDP growth and high-tech exports for 30 developed and 30 emerging nations between 2007 and 2020 using panel causality methodologies. According to the results of the causality test, GDP growth and high-tech exports are only causally related in one direction, and in a subset of industrialized and emerging nations, there is no discernible correlation between the two.

Furthermore, the national-level causality test indicates a positive causal relationship between GDP growth and high-tech exports in a subset of developed and emerging nations, even though there are not many of these nations in each group.

The current study is predicted on the following premises, which is consistent with the findings of earlier research that examined the internal and external gaps and their impact on the gross domestic product:

The Iraqi economy suffers from many problems, the most prominent of which is the internal and external gap. These gaps still exist and have negative effects on growth, development and economic stability, and their effects are both positive and negative concerning the size of the gross domestic product.

3. Research Methodology:

The researcher used both the inductive approach based on theoretical foundations by using the descriptive analysis method and all data, parameters, and measurement tools, as well as the deductive approach that relies on analysis to reach the results by moving from the general principle to the specific principle to accomplish the research objectives and demonstrate the validity of his hypothesis (E-views 13). Figure (1) provides an explanation and expression of the sort of relationship between the research variables.

To build the regression equation for the study model, we assume that the GDP indicator (is the dependent variable), while the internal gap (IS) as well as the external gap (XM) are independent or explanatory variables. Thus, we assume that the GDP is a function of the variables that can be expressed as follows:

$$GDP = f\,(IS, XM)$$

In the regression model, the model can be written as follows:

$$GPD = \beta_0 + \beta_1\, IS + \beta_2\, XM + \epsilon \cdots (1)$$

Where: β_0 is the constant. β_1, β_2 are the parameters to be estimated and ϵ is the random error term.

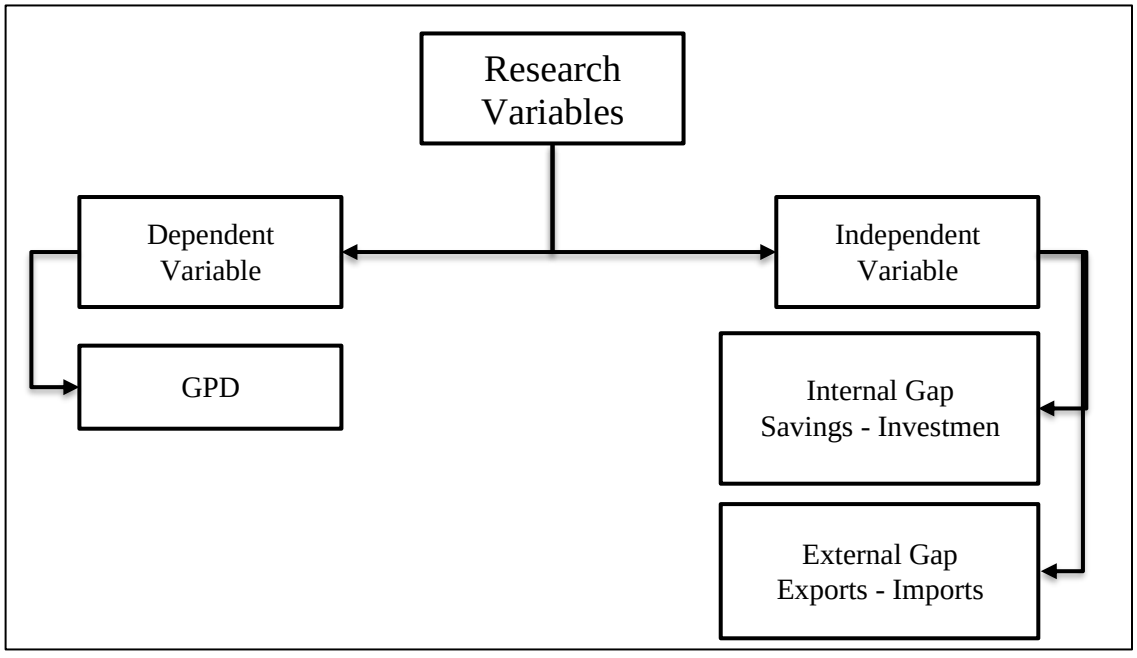

Figure 1: Hypothetical research plan

Source: Prepared by the researchers

We use a four-step estimate process to examine the connection between the GDP and the internal and external gaps. The Phelps-Perron unit root test is used in the first phase to examine the variables' stationarity. The existence of both short- and long-term associations between the variables is tested in the second phase, and diagnostic tests are performed in the third step to ensure that the coefficients are stationary and unaffected by biases. We use the Autoregressive Distributed Lag (ARDL) bounds testing approach for cointegration, created by Pesaran et al., in this investigation. To determine who causes whom throughout time, we employ the Toda-Yamamoto causality test in the fourth stage.

4. Results:

Empirical support for the study is provided in this section along with the findings of the cointegration model between the dependent and independent variables and the unit root test results acquired utilizing methods like the Phillips-Perron PP test. We evaluated the unit root to make sure that no variable of degree 2 or stationary with the second difference gets integrated, even though unit root tests are not required when using the ARDL approach. To determine whether the variables are stationery, we employed the Phillips-Perron PP test. The table below displays the test's findings.

Table 1: Results of the Phelps-Perron Test

Variable name	At the 5% level of the critical value (probability value)			At the first 5% difference, the critical value (probability value)		
	Fixed limit only	Fixed limit and general direction	No fixed limit and no general direction	Fixed limit only	Fixed limit and general direction	No fixed limit and no general direction
GDP	0.8961	0.5927	0.9821	0.0553	0.2072	0.0117
XM	0.0193	0.0802	0.0374			
IS	0.7716	0.9700	0.5623	0.0291	0.7083	0.0451

Source: E-views 13 program outputs.

Table (1) displays the unit root test results. The variables GDP and IS are integrated of the first degree (I (1)) according to the findings of the unit root test PP, which show that they have unit roots at levels but become stationary after the first difference at the 5% significance level. Additionally, it is observed that the variable XM is stationary at the initial level since its probability value is less than 5% at the I (0) level.

Figure (2) and Figure (3) show the graphs of the time series quiescence of the internal gap variable and the external gap variable. Figure (2) and Figure (3) show the graphs of the time series quiescence of the internal gap variable and the external gap variable.

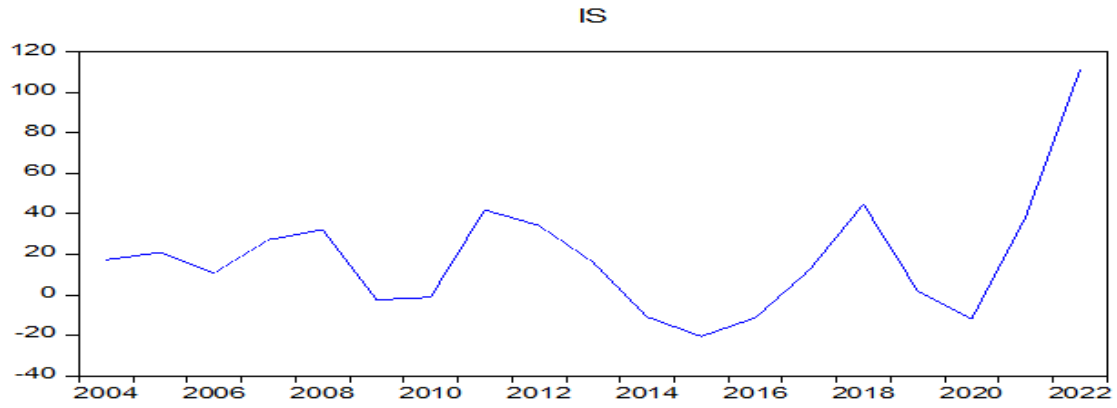

Figure 2: Graph of the time series quiescence of the internal gap variable.

Source: E-views 13 program outputs.

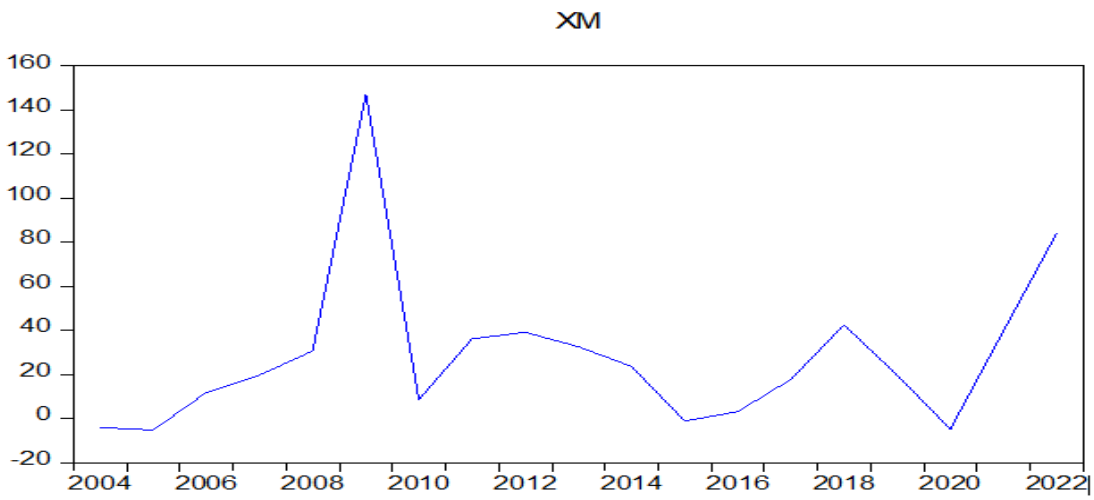

Figure 3: Time series quiescence graph of the external gap variable
Source: E-views 13 program outputs.
Figure (4) shows the graph of the time series quiescence of the GDP variable:

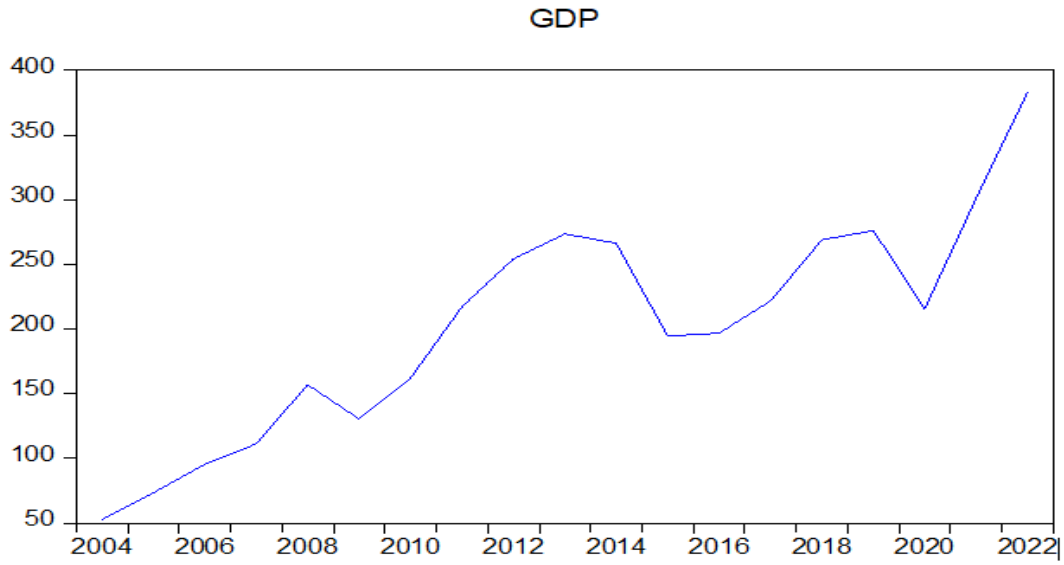

Figure 4: graph of the time series quiescence of the GDP variable
Source: E-views 13 program outputs.

After all variables appear stationary at the first level and difference, we proceed to apply the ARDL model to discover the long-run relationship between the variables.

Table 2: ARDL model estimation results

		Dependent Variable: GDP		
			Method: ARDL	
		Date: 10/10/24 Time: 13:44		
		Sample (adjusted): 2005 2022		
	Included observations: 18 after adjustments			
Maximum dependent lags: 1 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (1 lag, automatic): IS XM				
		Fixed regressors: C		
	Number of models evalulated: 4			
		Selected Model: ARDL (1, 0, 0)		
Prob.*	t-Statistic	Std. Error	Coefficient	Variable
0.0000	10.89146	0.081142	0.883754	GDP (-1)
0.0001	5.315785	0.215020	1.143000	IS
0.5920	-0.548552	0.183774	-0.100810	XM
0.2070	1.323222	17.07175	22.58972	C
211.1118	Mean dependent var		0.917928	R-squared
79.96757	S.D. dependent var		0.900341	Adjusted R-squared
9.488251	Akaike info criterion		25.24484	S.E. of regression
9.686111	Schwarz criterion		8922.230	Sum squared resid
9.515533	Hannan-Quinn criter.		-81.39426	Log likelihood
2.866507	Durbin-Watson stat		52.19376	F-statistic
			0.000000	Prob(F-statistic)
*Note: p-values and any subsequent tests do not account for model				
		selection.		

Source: E-views 13 program outputs.

As can be seen from the above table, the model's explanatory power was 0.90, meaning that 90% of the changes in the dependent variable were brought about by the independent factors, with the remaining 10% being the result of other variables that were not part of the model. Furthermore, the Darbon-Watson coefficient value of 2.8 is larger than the R^2 value of 0.9, indicating that the false regression issue does not affect the model. With a strong moral effect and a high F statistic value of 52.1, the model is both statistically sound and highly capable of reliably and credibly interpreting the data.

As previously indicated, the outcome of the limits test for the value of the F-statistics reveals whether there is a cointegration relationship or a long-term equilibrium link between the model variables.

Table 3: Results of the boundary test estimation

Null Hypothesis: No levels relationship			F-Bounds Test	
I (1)	I (0)	Signif.	Value	Test Statistic
	Asymptotic: n=1000			
3.35	2.63	10%	10.41315	F-statistic
3.87	3.1	5%	2	K
4.38	3.55	2.5%		
5	4.13	1%		

Source: E-views 13 program outputs.

The computed and estimated F-statistics (10.41315) are larger than the critical value limitations at the 5% level of statistical significance, as can be seen from the preceding Table. This disproves the null hypothesis that there is no joint integration between the variables and verifies that there is joint integration. As a result, this conclusion offers guidance for calculating the variables' short- and long-term relationships.

The short-term dynamics coefficients of the estimated ARDL model are shown in table (4), where the error correction coefficient shows the speed of return to equilibrium overall, and the results can be shown in the following table:

Table 4: Estimation of long-run coefficients

Levels Equation				
Case 2: Restricted Constant and No Trend				
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.6273	-0.496434	1.746872	-0.867206	XM
0.1867	1.388468	7.081598	9.832570	IS
0.0145	2.787231	69.72021	194.3263	C
EC = GDP - (-0.8672*XM + 9.8326*IS + 194.3263)				

Source: E-views 13 program outputs.

Table (4) displays the long-term estimation findings, and it is evident that there is a positive correlation between GDP (9.832570) and the IS gap. This indicates that when all other variables remain constant, widening the investment-savings difference eventually raises the pace of economic growth. Thus, it may be said that a rise in investment (seen by the creation of fixed capital) dependent on funding sources other than savings raises GDP.

Otherwise, we see that the external resources gap (XM) and the economic growth index have a long-term negative relationship (-0.867206). This indicates that the gap is widening because more goods and services are being imported at the expense of fewer exports, particularly non-oil ones, which lowers the GDP. The coefficients of these independent variables are not statistically significant, even though this result makes sense and aligns with economic theory.

This indicates that, despite its importance, it has no bearing on Iraq's long-term GDP. The following table displays the long-run ARDL coefficient results after confirming a long-term cointegration relationship between the independent and dependent variables by the results of the limits test.

It is also noted from the table above that the independent variables are not statistically significant between the internal gap index and the GDP on the one hand and the external gap index and the GDP on the other hand in the long run, according to the ARDL model. This indicates the absence of a long-term effect between these indicators in the Iraqi economy. This is due to the rentier nature of the Iraqi economy, reliance on the oil sector, weak local production, and the increase in the internal gap due to the low volume of savings and investment.

Table 5: Results of estimating short-term parameters

	ARDL Error Correction Regression			
		Dependent Variable: D(GDP)		
		Selected Model: ARDL (1, 0, 0)		
	Case 2: Restricted Constant and No Trend			
		Date: 09/13/24 Time: 16:16		
		Sample: 2004 2022		
		Included observations: 18		
ECM Regression				
Case 2: Restricted Constant and No Trend				
Prob	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-7.111830	0.016345	-0.116246	CointEq (-1) *

Source: E-views 13 program outputs.

As can seen from the preceding table, the ECT coefficient, which has a value of 1> and a negative sign of (-0.116246), is statistically significant at the 5% level and demonstrates the joint integration of the variables. As a result, the differences between the long-run and short-run coefficients converge to the latter at a pace of 116% every year.

According to the long-run ARDL model, the residuals must be autocorrelation-free and regularly distributed. Additionally, the residuals must be stable and homoscedastic. The necessary diagnostic procedures are employed to confirm the validity of these phenomena, and the outcomes are displayed in table (6) (7) and Figure (5).

Table 6: Serial correlation test results Autocorrelation Test

	Breusch-Godfrey Serial Correlation LM Test:		
0.1211	Prob. F (3,11)	2.422494	F-statistic
0.0669	Prob. Chi-Square (3)	7.161067	Obs*R-squared

Source: E-views 13 program outputs.

Table 7: Heteroskedasticity test results

		Heteroskedasticity Test: ARCH	
0.3058	Prob. F (1,15)	1.124332	F-statistic
0.2763	Prob. Chi-Square (1)	1.185392	Obs*R-squared

Source: E-views 13 program outputs.

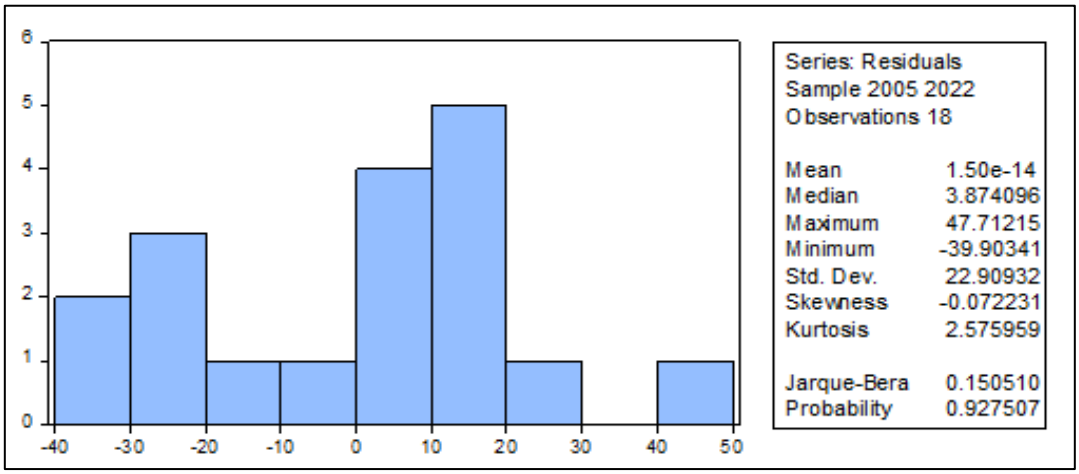

Figure 5: Results of the normal distribution test for residuals

Source: E-views 13 program outputs.

The table above shows that, according to their likelihood value, none of the diagnostic tests had any issues. The findings were as follows:

Since the probability of the autocorrelation chi-square reaching (0.0669) is greater than 5%, table (6) shows that there is no autocorrelation problem (Serial correlation test). Accordingly, we accept the alternative hypothesis that the model does not contain an autocorrelation problem. As the probability of chi-square for the stability of homoskedasticity reached (0.2763), which is greater than 5%, it is evident from table (7) that there is no problem of heteroskedasticity instability (Heteroskedasticity test). Accordingly, we accept the alternative hypothesis that states (the model does not contain the problem of the stability of homoskedasticity).

Figure (2) shows that the model's residuals' normal distribution is not problematic since the probability (Jarque — Bera) reached 0.150510, which is higher than 5%. Based on this, we accept the alternative hypothesis that the model has no problem with its residuals' normal distribution.

The estimated long-run ARDL model satisfies all the ideal qualities, as demonstrated by the studies, test statistics, and diagnostic test results; thus, the long-term relationship between the variables is justified.

We perform another significant diagnostic (stability test) to verify the coefficients' stability and ensure that these results are not skewed. The cumulative sum of squared residuals (CUSUMQ) and cumulative sum of repeated residuals (CUSUM) plots are two examples of our stability diagnostics. We present these CUSUM plots in Figures (6) and (7), and it is evident that the CUSUM plots referenced in these figures offer more proof of the estimated model's stability. Additional proof that the parameters of the computed ARDL models are stable and that the results are comforting is provided by the plots' line falling under the 5% significance threshold.

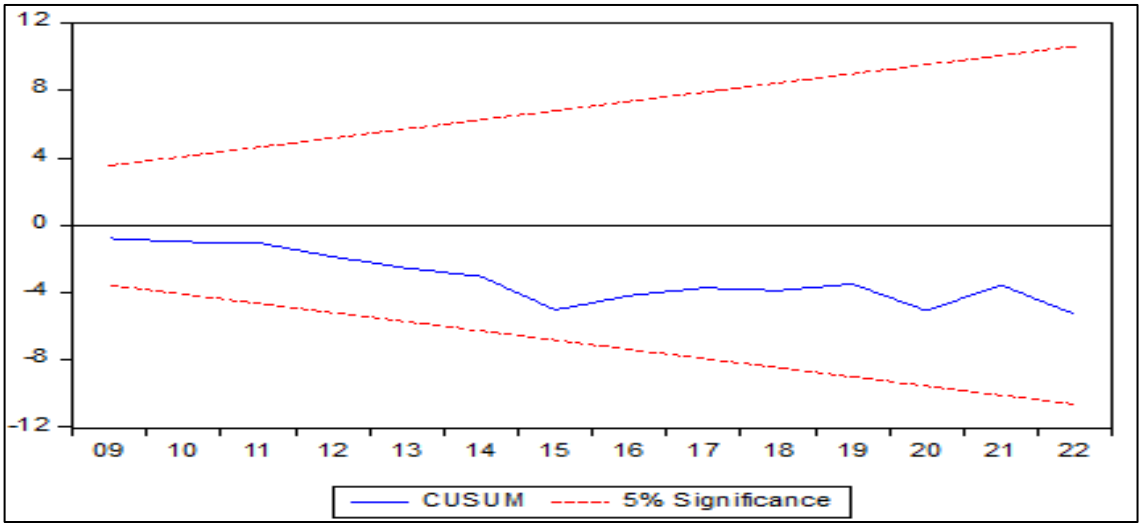

Figure 6: Stability test results according to CUSUM formula
Source: E-views 13 program outputs.

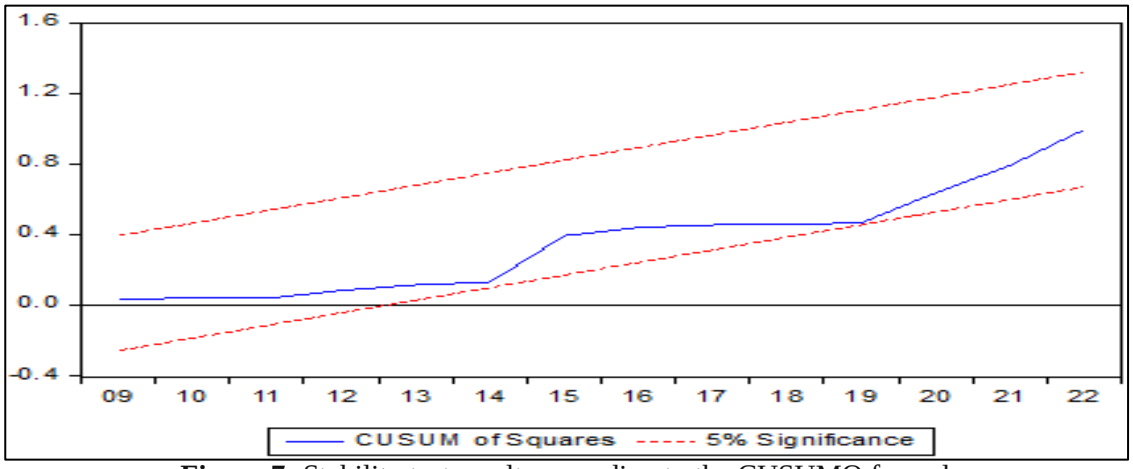

Figure 7: Stability test results according to the CUSUMQ formula
Source: E-views 13 program outputs.

Tables (8) and (9) show the results of the Toda-Yamamoto causality test. The first step of the test is to determine the optimal lag period by "choosing the VAR lag order". The order (dmax (=1) is chosen according to the criteria of "FPE, AIC and HQ" and is documented in the table below. Then, the result of the unit root test pp is used to determine the highest degree of stillness, which was previously determined at the first difference and thus (K=1), and then the VAR(k+dmax) model is estimated.

Table 8: Determining the optimal lag period for the estimated model.

			VAR Lag Order Selection Criteria			
			Endogenous variables: GDP IS XM			
				Exogenous variables: C		
				Date: 09/13/24 Time: 19:05		
				Sample: 2004 2022		
				Included observations: 18		
HQ	SC	AIC	FPE	LR	LogL	Lag
31.08525	31.21318	31.06479	6.22e+09	NA	-276.5831	0
29.51642*	30.02816*	29.43458*	1.25e+09*	36.82296*	-252.9112	1
		* indicates lag order selected by the criterion				
	LR: sequential modified LR test statistics (each test at 5% level)					
				FPE: Final prediction error		
			AIC: Akaike information criterion			
			SC: Schwarz information criterion			
			HQ: Hannan-Quinn information criterion			

Source: E-views 13 program outputs.

Table 9: Results of the Y T Causality Test

VAR Granger Causality/Block Exogeneity Wald Tests			
	Date: 09/13/24 Time: 19:12		
		Sample: 2004 2022	
	Included observations: 17		
	Dependent variable: GDP		
Prob.	df	Chi-sq	Excluded
0.0095	2	9.305053	IS
0.4871	2	1.438750	XM
0.0534	4	9.327003	All
	Dependent variable: IS		
Prob.	df	Chi-sq	Excluded
0.6698	2	0.801685	GDP
0.9318	2	0.141276	XM
0.8976	4	1.079240	All
	Dependent variable: XM		
Prob.	df	Chi-sq	Excluded
0.8917	2	0.229300	GDP
0.7719	2	0.517852	IS
0.4254	4	3.859146	All

Source: E-views 13 program outputs.

The results of examining the relationship between the internal resource gap (IS) and GDP revealed a probability value of 9.3051, a degree of freedom of 2, and a Chi-sq statistic value of *(0.0095).* This indicates a one-way causal relationship between GDP and the internal resource gap. Stated differently, the internal resource gap has a long-term impact on GDP. This aligns with economic theory, which contends that the GDP can be significantly impacted by the internal resource gap (for example, a decline or increase in domestic investment or consumption).

The reason for the insignificance of the long-run relationship, according to the ARDL model, between the internal gap index and GDP can be explained in light of the significance of the causal relationship between them according to Toda Yamamoto's causality, which is due to the existence of an effect of the internal gap index on GDP, i.e. the internal gap index causes GDP, but the type of effect is unknown due to the statistical insignificance of ARDL.

5. Discussion of Results:

According to the Phillips-Perron unit root test results, all variables are stationary at the level of the first difference but non-stationary at the second difference. This makes the ARDL model possible. The existence of joint integration, or a long-term equilibrium relationship between the research variables, was validated by the ARDL model bounds test results.

Although the coefficients of these independent variables are not statistically significant, long-run estimates show a negative long-term relationship between GDP and the external resource gap (XM) and a positive relationship between the IS gap and GDP. This means that the gap widens because of declining exports, particularly non-oil ones, and increasing import levels of goods and services. This indicates that, despite their significance, they have little long-term impact on Iraq's GDP. According to the T-Y causality test results, the internal gap and GDP only have a one-way relationship. Thus, GDP eventually results from the internal resource deficit, which makes perfect sense and aligns with economic theory.

The standard test results show that the effects of the internal and external gaps on the GDP of the Iraqi economy are distinct and intricate. Since the internal deficit eventually contributes to GDP, the link between it and GDP was positive. In contrast, the external gap had a negative impact, indicating that exports play a more minor role than imports. These impacts did not, however, reach statistical significance.

Many economic schools have interpreted the internal and external gaps, the reasons for their emergence, and ways to address them. The classical school addressed the internal gap through the relationship between savings and investment, considering that their imbalance leads to this gap. The Keynesian school focused on the importance of investment in stimulating demand and supply, as investment creates income and increases production capacity, assuming that savings and investment are equal in a closed economy without government intervention. The neoclassical school blamed weak economic policies in developing countries, which led to widening internal and external gaps due to insufficient resources, especially financial ones, to achieve development ambitions. In contrast, the new structural school focused on the external gap, considering that the leading cause of economic crises in developing countries is weak production capacities, leading to clear economic imbalances and the failure to achieve economic balance.

Due to poor domestic output, the Iraqi economy depends on international markets to supply its demands for products and services. A significant portion of all imports were made by consumers, particularly in the early years following 2003 because of growing government spending and pay and salary increases. They increased throughout the ISIS attacks while declining in previous years due to government initiatives to promote economic development. On the other hand, productive imports have varied because of investments in infrastructure and rehabilitation projects. To increase self-sufficiency and boost the economy, the government has been moving toward increasing domestic output and decreasing reliance on imports in recent years.

6. Conclusion:

Adopting economic policies aimed at diversifying sources of income and reducing dependence on the oil sector is necessary. This requires developing the agricultural and industrial sectors and improving the infrastructure to support the private sector and develop local industries, which contributes to reducing the external gap and increasing economic stability.

Work to enhance public confidence in the banking system by improving transparency and providing innovative and effective banking services. This will increase the volume of deposits and thus enhance the savings available to finance local investment, which helps drive economic growth and reduce the internal gap.

Implement effective policies to encourage non-oil exports by improving the competitiveness of local products in global markets. Diversifying exports will help reduce the external gap and reduce dependence on oil revenues, which supports long-term economic stability.

Activating and developing local agricultural and industrial sectors is necessary to improve local production and reduce dependence on imports. This will reduce the external gap, increase GDP, and create new job opportunities, which will contribute to reducing unemployment rates.

Iraq needs long-term economic policies aimed at enhancing security and political stability, which helps provide a favorable environment for economic growth and avoid imbalances in investments and revenues.

To address the external gap, the government should work to improve non-oil exports and enhance the competitiveness of Iraqi products, which will reduce dependence on imports and limit the economic crises resulting from oil price fluctuations.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved by The Local Ethical Committee in The University.

References:

Abed, M. K., Saleh, A. N., & Ibrahim, M. T. (2023). The impact of money supply (M2) on the gross domestic product in the Iraqi economy for the period (2004-2020). *Tikrit Journal of Administrative and Economic Sciences*, *19*(62 part 1).

Rabah Jasim Al-Harishawi*, S., & Fadhil Jawad Al-Dahlaki, S. (2024). The Efficiency of Domestic Savings and Its Impact on The Average Per Capita GDP In Iraq for the Period (2003-2022). *Journal of Economics and Administrative Sciences*, *30*(141), 385-405. https://doi.org/10.33095/eenvvg64

Ali, A., Fatima, N., Rahman Ali, B. J. A., & Husain, F. (2023). Imports, Exports and Growth of Gross Domestic Product (GDP)-A Relational Variability Analysis. *International Journal of Sustainable Development & Planning*, *18*(6).

Alzghoul, A., Alsheikh, G. A. A., & Yamin, I. (2023). The Relationship Between Savings and Investment: Evidence From Jordan. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, *8*(3), 3.

Bai, Y. (2023). An Empirical Analysis of the Relationship Between Chinese GDP and Deposit Savings. *International Conference on Economic Management and Green Development*, 873–884.

Chauhan, V. (2021). Relationship between exports and gross domestic product (GDP). *International Journal of Creative Research Thoughts (IJCRT)*, *8*(4), 2697–2702.

Ele, L. E., & Michael, E. I. (2023). The Impact Of Savings Mobilization on Investment Growth in Nigeria: An ARDL Approach. *African Banking and Finance Review Journal*, *5*(5), 75–95.

Ghauri, S. P., Ahmed, R. R., Streimikiene, D., & Streimikis, J. (2020). Forecasting exports and imports by using autoregressive (AR) with seasonal dummies and Box-Jenkins approaches: A case of Pakistan. *Engineering Economics*, *31*(3), 291–301.

Hamad, M. J. (2022a). Analysis of some macroeconomic variables in controlling the general level of prices in Iraq for the period (2004-2020). *Tikrit Journal of Administrative and Economic Sciences*, *18*(59 part 1).

Hamad, M. J. (2022b). Measuring the effect of the long-term equilibrium relationship Between some economic variables and economic growth in Singapore for the period (1990-2020). *Journal of Business Economics*, *2*(2), 176–193.

Hamad, M. J., & AI-Ahbabi, B. J. M. (2023). Measuring the impact of some macroeconomic variables on sustainable development in Malaysia for the period (2004-2020). *Tikrit Journal of Administrative and Economic Sciences*, *19*(64 part 2).

IHEJIRIKA, D. R. (2023). Savings, Investment and Economic Development in South Africa. *Emerald International Journal of Scientific and Contemporay Studies*, *4*(1), 286–307.

Jamal, M. A., & Sultana, H. Y. (2023). The Saving-Investment Approach: Determination of Economic Growth of India. *Center for Development Economic*, *10*(15), 20–34.

Jawad, S. F. (2016). Government Savings and Its Role in Economic Development in Iraq for the Period (2000-2012). *Journal of Administration & Economics*, *39*(107), 30–42.

Jazza, G. M., & Faraj, M. M. (2022). The Distributional Effects of Change the Exchange Ratein Iraq Economic During the Period (1990-2020). *TANMIAT AL-RAFIDAIN*, *41*(135).

Kadhim, A. S. H. (2020). The Nature of the Relationship between Savings and Investment and Their Impact on Iraqi Economic Growth for the Period (1990-2015). *Al-Rafidain University College For Sciences*, *47*.

Maala, H. K. (2014). Foreign Trade Gap and the Degree of Exposure of the Iraqi Economy for the Period (1985-2008) An Analytical Study. *Journal of Administration & Economics*, *37*(100), 1–16.

Milewicz, W. (2024). Investment and Savings in Poland versus Other European Union Countries. *COMPETITIVENESS REPOR*, 109.

Najafi Bousari, B., Akbari Moghadam, B., Hadizadeh, A., & Bayat, N. (2023). Impact of exchange rates and inflation on GDP: A data panel approach consistent with data from Iran, Iraq and Turkey. *International Journal of Nonlinear Analysis and Applications*, *14*(1), 147–161.

OHTA, H. (2024). The Effects of International Capital Flows on Domestic Savings, Investment and Growth in Emerging Economies. 立命館国際研究, *37*, 1.

Omarya, M. (2023). Do Exports and Imports Affect the Gross Domestic Product in Palestine During the Period (2000-2020)? *International Journal of Business Ethics and Governance*, *6*(1), 1–11.

Osuka, B. O., Ihejirika, P. O., & Felix, O. E. (2024). Savings, Investment and Economic Development in Nigeria. *POLAC ECONOMIC REVIEW*, *4*(1), 265–273.

Ribaj, A., & Mexhuani, F. (2021). The impact of savings on economic growth in a developing country (the case of Kosovo). *Journal of Innovation and Entrepreneurship*, *10*, 1–13.

Sojoodi, S., & Baghbanpour, J. (2024). The relationship between high-tech industries exports and GDP growth in the selected developing and developed countries. *Journal of the Knowledge Economy*, *15*(1), 2073–2095.

Šubová, N., Buleca, J., Affuso, E., & Mixon Jr, F. G. (2024). The link between household savings rates and GDP: evidence from the Visegrád group. *Post-Communist Economies*, *36*(2), 197–221.

Sunde, T., Tafirenyika, B., & Adeyanju, A. (2023). Testing the impact of exports, imports, and trade openness on economic growth in Namibia: assessment Using the ARDL cointegration method. *Economies*, *11*(3), 86.

Velaj, E., & Bezhani, E. (2022). The Impact of Import and Export to GDP Growth–The Case of Albania. *Review of Economics and Finance*, *20*, 791–796.

Wanzala, R. W., & Obokoh, L. O. (2024). Savings and sustainable economic growth nexus: A South African perspective. *Sustainability*, *16*(20), 8755.