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Fiscal Policy's Role in Achieving Economic Saudi Arabia Diversification: New Evidence from an ARDL Approach

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ABSTRACT

The study analyses the role of fiscal policy in promoting economic diversification in the Kingdom of Saudi Arabia. To assess this relationship, it employs both descriptive and econometric approaches, utilising the autoregressive distributed lag (ARDL) model for data spanning from 1980 to 2023. The findings reveal a significant cointegrated relationship among the variables, indicating that they move together over time. Importantly, there is a negative and significant unidirectional causality between the Herfindahl-Hirschman index (HH) and government expenditure. Specifically, a 1% increase in government expenditure results in approximately a 0.63% decrease in the economic diversification index, suggesting that rising government spending is associated with reduced diversification. The large proportion of total government expenditures allocated to current rather than capital spending, which may limit investments in new sectors, explains this counterintuitive outcome. These results carry important policy implications. They suggest that policymakers should reconsider the structure of government expenditures to better support diversification efforts. This could involve increasing investments in sectors that contribute to economic diversification, optimizing operational expenses, and offering targeted tax incentives to promote growth in priority sectors. By aligning fiscal policy more closely with the objectives of economic diversification, Saudi Arabia can work toward building a more resilient and varied economy, thereby reducing its dependence on oil revenues and fostering sustainable growth.

INTRODUCTION

Economic diversification significantly influences economic structure, positively impacting growth rates and sector development (Hare, 2008). Recognizing this, the Saudi Arabian government has prioritized diversifying its economy as a core strategic goal in its development plans. Ongoing efforts in this direction are essential to achieving the objectives outlined in the Kingdom's Vision 2030. Recently, Antwi-Boateng and Al Jaberi (2022) confirm that opening the Saudi Arabian economy to investments and business will boost production and facilitate its transformation into one of the world's largest economies. The Saudi authorities have implemented various fiscal policy tools to promote economic diversification, recognizing

their critical role in economic development and stability, which in turn influences the structure of the national economy.

Countries adopt normally various strategies to diversify their economies based on their unique specifies. These strategies typically focus on increasing income sources and developing economic sectors. Key approaches include encouraging private sector involvement, attracting foreign investments, and establishing a solid industrial foundation. Sustaining this diversification often requires the implementation of economic reform programs (Antwi-Boateng & Al Jaberi, 2022).

The development of economic sectors in a country relies on sufficient financial resources to support the process. Saudi Arabia faces the significant challenge of reducing its dependence on oil exports. Over the past five decades, economic authorities have worked to refine their strategies, with fiscal policy serving as a key tool to achieve economic goals. Government expenditure influences the contributions of various sectors to GDP; thus, sectors with lower GDP participation are prioritized for development to enhance their effectiveness and contributions.

This study addresses the previously unexplored analysis of fiscal policy's contribution to economic diversification in Saudi Arabia. It focuses to measure and analyze the relationship between fiscal policy variables and economic diversification from 1980 to 2023. We structure this paper as follows. Section 2 summarizes the theoretical framework of fiscal policy. Section 3 is briefly reviewing of previous empirical studies on economic diversification and the impact of fiscal policy on it. Section 4 analyses the current state of financial policies and economic diversification in Saudi Arabia. Section 5 describes the econometric approach used and presents preliminary empirical statistics. Section 6 discusses the econometric estimates. Finally, Section 7 concludes the study and offers policy implications for policymakers.

1. FISCAL POLICIES: THEORETICAL FRAMEWORK

In relying on fiscal policy tools, countries effect economic activity, indicators, and stability. Andolfatto (2008) defined fiscal policy as the government collecting and spending money in order to achieve economic, social, and political goals. This definition emphasizes tools used by public finance to achieve economic stability, such as government expenditures (Barro et al., 1994), revenues (Taylor, 1949), and budget (Taylor and Mcgoldrick, 1930). According to Easterly and Rebelo (1993), fiscal policy is indispensable for economic stability. It mitigates fluctuations in production and prices while promoting high-level development. It creates a favorable environment for increasing investments, employment, and economic resources (DeLong et al., 2014), and improves living standards. It expedites the redistribution of income and wealth to enhance social justice, contributing to economic, social, and political stability (Şener, 1995).

Economic diversification is crucial in enhancing the economic structure and achieving sustainable development. To strengthen their economic conditions, countries aim to broaden their production base by reducing risks, improving income levels, and increasing investment volumes (Hare, 2008). Markowitz's theory of portfolio diversification constructed the theoretical foundation for economic diversification. Markowitz (1999) suggested that investors could mitigate risk by investing in a variety of assets with different risk levels. This approach emphasizes the advantages of holding multiple types of financial assets. Additionally, Leontief and Strout (1963), and Leontief (1986) analyzed economic diversification through input-output associations. They highlighted how sectors are interconnected and how changes in one sector can affect the rest of the economy.

Romer (1987) emphasized the link between endogenous growth theory, diversification, and quality. He proved that technological progress could enhance the diversity of goods produced or consumed. He argued that innovation results in new products or industries that are neither direct substitutes nor complements to existing ones. It means that new discoveries do not render existing products obsolete. He concluded that achieving diversification necessitates significant investment in research and development.

Production diversification refers to how various economic sectors contribute to GDP and income. Dhir and Dhir (2015) categorize it into horizontal diversification, which involves creating new products within a sector, and vertical diversification, which spreads investments across sectors to enhance value. This diversification affects GDP structure, income, production, exports, and state revenues. Shediac et al. (2008) argue that promoting diversification is vital for growth and sustainable development, improving living

standards. It also helps mitigate risks during economic downturns, as reliance on a single income source increases vulnerability to market fluctuations (Uzonwanne, 2015).

Furthermore, export diversification enhances and develops exports by encouraging investors to boost the competitiveness of domestic goods in foreign markets, thereby fostering economic growth. Additionally, it mitigates the risk associated with fluctuating prices of exported goods and improves trade exchange rates. Countries with limited range of exports, declines in product prices reduces their export revenues and foreign exchange. The state's ability to finance imports and support economic development will be constrained.

By developing production, economic diversification will reduce investment risks. Thereby, it promotes investment and contributes to reach higher returns and stable economic growth. Furthermore, it leads the private sector to contribute significantly in economic development, reducing dependency on government involvement (Mishrif, 2018). Additionally, diversification leads to create job opportunities in the private sector through the development of different economic sectors (Callen et al., 2014).

2. A BRIEF LITERATURE REVIEW

This study focuses on a selective literature review analysing the role of fiscal policy in achieving economic diversification. The relationship between fiscal policy and economic diversification has gained attention in the literature, as both public expenditure and revenues influence production diversification. Investment expenditures, a key component of aggregate demand, significantly affect production growth; they are directed toward public projects in sectors like industry and agriculture (Khan and Kumar, 1997). Additionally, these expenditures support social initiatives in human capital and health. By boosting an increase in economic production, investment expenditures promote diversification (Callen et al., 2014). Public expenditures also aid export development by providing subsidies to domestic and foreign investors, sustaining competitiveness against foreign markets (Gruenspecht, 1988).

Public revenues, particularly tax policies, are crucial tools for achieving economic diversification. Tax policy plays a significant role in directing and encouraging investment by offering various incentives to attract local and foreign capital while reducing the tax burden on investors. This encourages investment in targeted sectors that the state aims to develop (Avi-Yonah, 2000). Additionally, public revenues help diversify exports by increasing state income, allowing for support of various economic sectors, and enhancing their resilience and competitiveness in foreign markets.

Bokhari (2017) asserted that successful economic diversification in Saudi Arabia necessitates comprehensive reforms of the overall economic framework, utilizing flexible economic models. These models should promote integrated economic policies to achieve the desired goals. He emphasized that the development of the private sector and human capital are key determinants of effective economic diversification. Hvidt (2013) found that economic diversification is essential for GCC countries. He argued that these countries must require the development of multiple income sources and the use of various economic policy tools to achieve diversification process. Thereby, he suggested resorting to the private sector and foreign direct investment since they act crucially in diversification efforts. They should re-evaluate their spending policies to reduce reliance on volatile oil prices.

To investigate the relationship between the degree of diversification or concentration and a country's development stage, Imbs and Wacziarg (2003) have used cross-sectional data from group countries between 1969 and 1997. They found that diversification correlates with the level of development: in the early stages of development and at low per capita income, countries tend to diversify across all sectors. As per capita income rises to a certain level, countries begin to concentrate their resources, shifting from agriculture to industrial and service sectors. Abdel Rahman (2002) argued that the Saudi government should apply a comprehensive strategy involving the private sector, which well conducts implementation. As a key factor in the diversification process, foreign direc investment is needed, especially in natural gas, mining, and tourism sectors.

Economic diversification in Iraq requires the government to implement effective public policies. Kadhim and Hasan (2022) examined the impact of fiscal policy on this diversification using the ARDL method. They found that current public expenditures overshadow investment expenditures in the budget, providing

external savings that encourage private investment and support long-term growth. However, the effect of fiscal policy is still weak due to the economy's heavy reliance on oil for revenues and expenditures, which hampers necessary diversification efforts.

Kolawole et al. (2018) examined the effectiveness of fiscal policy, specifically government expenditure and tax revenues, in promoting economic diversification in Nigeria from 1981 to 2018. They found that Nigeria's economy, heavily dependent on oil, shows a negative relationship between the diversification index and both petroleum gains tax and capital expenditures. To foster diversification, the government should wisely utilize expenditures to promote production and improve infrastructure, thereby reducing costs for exportable goods and services and enhancing sustainable development across all sectors.

3. SAUDI ECONOMIC DIVERSIFICATION REALITY: EMPIRICAL FINDING OVER THE PERIOD 1980-2023

Fiscal policy plays a vital role in Saudi Arabia's economy, allowing the government to manage public finances and allocate resources effectively. According to Hasanov et al. (2022), it primarily facilitates the transfer of revenues from the oil sector to the non-oil sector. Figure 1 illustrates the evolution of government expenditure from 1980 to 2023, including both current and capital expenditures. In the early 1980s, expenditures peaked at 236.7 billion riyals due to the oil boom. However, by the mid-1980s, spending dropped to 137.4 billion riyals because of declining oil prices. The early 1990s saw a 25% increase in military spending during the second Gulf War, raising expenditures to 214.1 billion riyals. Yet, by the late 1990s, spending significantly decreased, resulting in a budget deficit and a low of 183.8 billion riyals. From 2004 to 2014, the oil boom led to a surge in government expenditure to 1,140.6 billion riyals, enabling the approval of numerous Greenfield projects that boosted spending, created jobs, and fostered economic development.

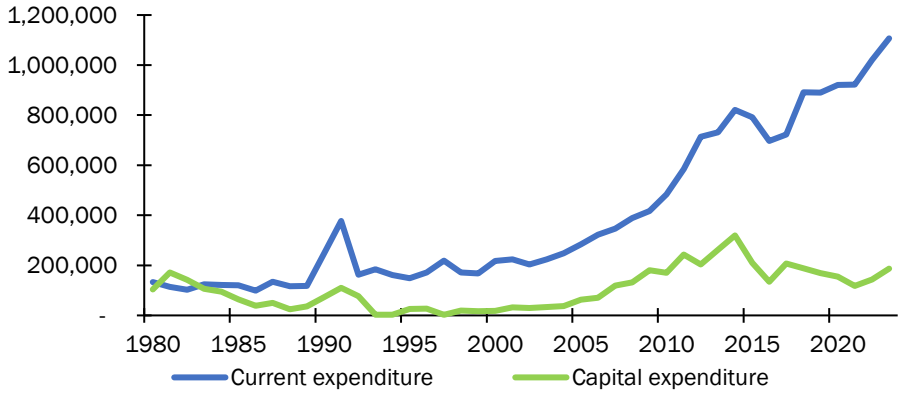

Figure 1. Evolution of Government Expenditure in Saudi Arabia
Source: from Central Bank of Saudi Arabia database

In 2015, the Saudi government allocated 1,001.2 billion riyals, even as oil prices fell. Military spending surged in 2016 due to the conflict in Yemen. In 2017, the government introduced monetary policy reforms to enhance spending efficiency and boost non-oil production as part of Vision 2030 goals. Figure 1 indicates that current expenditures significantly outpace capital expenditures in total government spending.

Saudi Arabia's revenues are divided into two categories: oil and non-oil revenues. The following Figure 2 illustrates that the majority of Saudi Arabia's income comes from oil. Nevertheless, non-oil revenues increased since 2016 due Vision 2030.

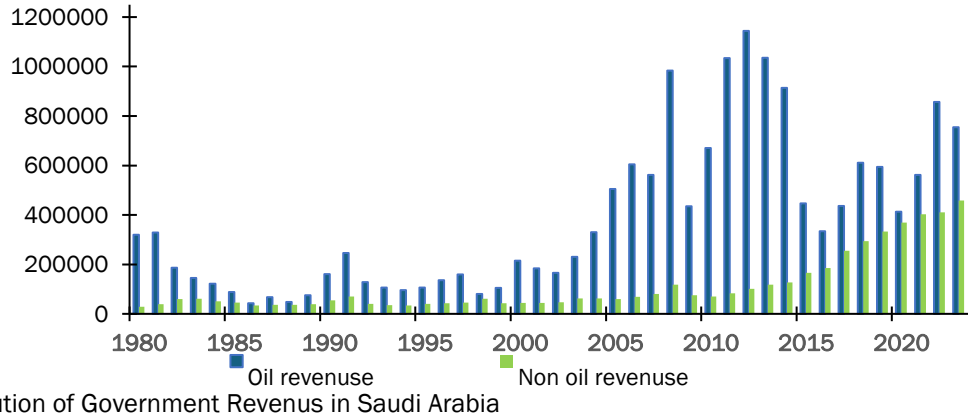

Figure 2. Evolution of Government Revenus in Saudi Arabia
Source. from Central Bank of Saudi Arabia database)

From 1980 to 2023, Saudi Arabia used its oil wealth to enhance living standards and boost per capita income through significant government investments in infrastructure and equipment. However, the government recognized that overdependence on oil for GDP could pose economic risks due to market volatility. Consequently, economic diversification has become a key strategic objective to mitigate these risks. This focus leads to reducing the oil sector's contribution to GDP to 29.9% in 2023, while the non-oil sectors have seen growth. Figure 3 illustrates this shift, exhibiting increases in contributions from sectors such as industry, government services, and trade.

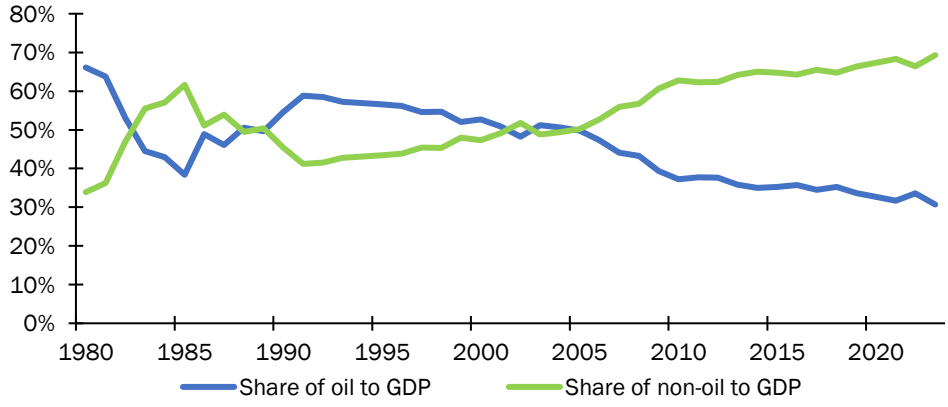

Figure 3. Percentage of oil non-oil sectors participation in GDP (constant prices)
Source: from Central Bank of Saudi Arabia database)

By different alternating indexes, Berthelemy (2005) and Agosin et al. (2011) found similar results. To measure economic diversification degree in our study, we adopt the Herfindahl-Hirschman index. Its value ranges between zero and one. It means that a higher value indicates that the economy is concentrated on a small set of products, and vice versa. This index is calculated as follow:

$$H = \frac{\sqrt{\sum_{i=1}^{n}\left(\frac{x_i}{Gdp}\right)^2} - \sqrt{\frac{1}{n}}}{1 - \sqrt{\frac{1}{n}}} \qquad (1)$$

Where (n) is the number of sectors, (x_i) is the total real output per sector, and (Gdp) is the real gross domestic production are measured in billions of constant 2010 Saudi riyals. If it is zero, there is complete diversity in the economy, but if it is one, there is no diversification, and then the output is concentrated in one economic activity.

Figure 4 retraces the evolution of the economic diversification index based on sector contributions to GDP at constant prices. The index fell in the early 1980s and then rose to 0.40 in 1992, caused by political

conditions in the Arab Gulf region. However, it has since declined continuously, reaching 0.10 in 2023. This decline is the result of the implementation of various transformational programs aimed at supporting diversification under the Kingdom's Vision 2030.

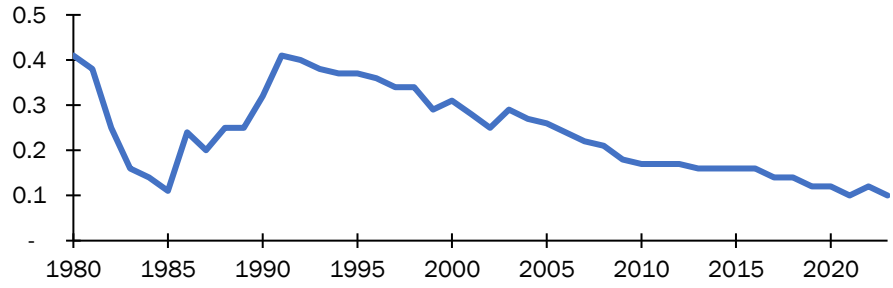

Figure 4. Evolution of Economic Diversification Index
Source: own

4. ECONOMETRIC MODEL AND PRELIMINARY EMPIRICAL ANALYSIS

4.1 Econometric model

According to Pesaran and Pesaran (1997) and Pesaran et al. (2001), we attempt to study and analyze the fiscal policy-diversification economy nexus both short and long run. For this goal, we use Saudi Arabia yearly data over the period 1980-2023, and we adopt econometric approach used recently by Mazengia et al. (2023). We specify the following time series ARDL(*p*,*q*) model:

$$H_t = \beta + \sum_{i=1}^{p} \alpha_i \, H_{t-i} + \sum_{j=0}^{q} \mu_j' \, \Delta Y_{t-j} + \omega_t \qquad (2)$$

Where H_t the Herfindahl-Hirschman index, $Y_t = [Ge_t, \, Cpi_t, Fdi_t, Gdp_t]$ is the independent variables vector, β is the intercept, and ω_t is the stochastic error term. This ARDL specification has orders *p* and *q* describe the time lag number that are selected automatically by the Akaike Information Criteria (AIC).

Furthermore, the short-run and long-run analysis requires the following error correction model:

$$\Delta H_t = \beta + \left(\sum_{i=1}^{p} \alpha_i - 1\right)(H_{t-1} - \gamma' Y_{t-1}) + \sum_{i=1}^{p-1} \alpha_i^* \, \Delta H_{t-i} + \sum_{j=0}^{q-1} \mu_j^{*\prime} \, \Delta Y_{t-j} + \omega_t \qquad (3)$$

Where Δ denotes the first difference operator, and the long-run and short-run parameters for this dynamic model are γ, α^*, and μ^*. These parameters are defined, respectively, as follows:

$$\gamma = \frac{\sum_{j=0}^{q} \mu_j}{1 - \sum_{i=1}^{p} \alpha_i} \qquad \alpha_i^* = -\sum_{m=i+1}^{p} \alpha_m \qquad \mu_j^* = -\sum_{m=j+1}^{q} \mu_m$$

We assume that the error correction term is described by $(H_{t-1} - \gamma' Y_{t-1})$, and its coefficient $\left(\sum_{i=1}^{p} \alpha_i - 1\right)$. According to Pesaran and Pesaran (1997) and Pesaran et al. (2001), the $\left(\sum_{i=1}^{p} \alpha_i - 1\right)$ term indicates the diversification index adjustment speed towards its long-run equilibrium state for any disturbance situation in the independent variables. Furthermore, it must be statically negative.

4.2 Preliminary empirical analysis

To study the role of fiscal policy in Saudi Arabia's economic diversification, we elaborated database upon the Saudi Central Bank and the World Development Indicators. All observations are annual frequency over the period 1980-2023. H is the Herfindahl-Hirschman Index in order to measure the economic diversification degree. The Government capital expenditures (Ge), real Gross domestic product (*Gdp*), and Foreign direct investment (Fdi) are measured in billions of constant 2010 Saudi riyals. The Consumer price index (*Cpi*) is given as a percentage (2010=100) to measure inflation.

Table 1. Summary statistics

Variables	*Mean*	*Maximum*	*Minimum*	*Std. Dev.*
H	0.253409	0.430000	0.120000	0.094079
Ge	492159.2	1293236.	137422.0	373266.5
Cpi	0.889261	1.323644	0.670404	0.2098878
Fdi	-5895.056	43914.46	-99383.74	27698.36
Gdp	1975872	3495059	1034099	782442.1

Source: Author's calculations using the World Development Indicators and Saudi Central Bank data

To analyze the stationarity of variables, we have applied unit root tests summarized in the following Table 2, especially the augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test with intercept, and intercept and deterministic time trend. The null hypothesis of ADF and PP tests is a unit root and the alternative hypothesis is no unit root. All variables are transformed into the napierian logarithm except for the Foreign direct investment variable.

Table 2. Unit root tests

Variables	*ADF*		*PP*	
Model with Intercept	*(I)*	*(II)*	*(I)*	*(II)*
LH	-1.4127	-7.1185***	-1.5404	-7.1105***
LGe	0.2252	-4.7019	0.2172	-5.5982***
Fdi	-4.4012***		-4.5265***	
LCpi.	0.4694	-3.2575**	0.6835	-3.2790**
LGdp	1.0342	-4.0398***	0.3988	-4.1181***
Model with Intercept and Trend				
LH	-1.8410	-7.0319***	-2.0171	-7.0259***
LGe	-2.4629	-4.9499***	-2.0637	-5.9013***
Fdi	-5.2607***		-5.3669***	
LCpi.	-2.8805	-3.6744**	-1.6014	-3.7177**
LGdp	-4.3588***		-4.3273***	

Notes: The (I) and (II) indicate to the level and the first difference. Prob. indicates critical probability value. We have not included the statistic values of tests in column (II) for variables that have already reached a stationary state, corresponding to column (I). *** p < 0.01; ** p < 0.05; * p < 0.1.

The results, summarized in columns (I) and (II), represent the checking for the stationarity on the level and on the first difference, respectively. No series are stationary at level, except for foreign direct investment (*Fdi*) is I(0) in level at 1% significance level for both models, and for both types of tests. Furthermore, the reel gross domestic product ($LGdp$) is I(0) in difference at 1% significance level for the model with intercept for both types of tests, but it is stationary at 1% significance level for the model with intercept and trend, and for both types of tests. Nevertheless, Herfindahl-Hirschman Index (*LH*) and consumer price index (*LCpi*) series are I(0) at 1% and 5% significance level , respectively, for both models, and for both types of tests. According to these results, the bounds testing for cointegration should be conducted as long as no series contains more than one unit root.

5. ECONOMETRIC ESTIMATES OUTCOMES

5.1 Tests panoply for ARDL application

The results conducted in Table 2 permit the recourse to a suitable ARDL approach. Following to Pesaran et al. (2001), the cointegration test reposes on the comparison of the jointly computed F-statistic of the bounds test to the tabulate two critical values sets for the cases when the variables are all stationary and all non-stationary. If the calculated F-statistic is superior to the upper critical bound value, we will conclude that all variables are cointegrated. Nevertheless, all variables are not cointegrated if the calculated F-statistic is inferior to the lower critical bound value. The ARDL order p and q are automatically defined according to Akaike Information Criteria (AIC)[1]. According to Pesaran and Shin (1999), a goodness adjustment for the ARDL model leads to simultaneously correcting for residual serial correlation and endogeneity problems. These findings are corroborated by statistical tests computed in the following table.

Table 3. Diagnostic tests and F- test for cointegration

LM	*ARCH*	*JB*	*RESET*	*F-statistic*	*Selected model*
0.3359	0.2976	0.6253	0.7376	11.5687***	ARDL(4,0,0,1,4)
[0.7189]	[0.5887]	[0.7315]	[0.3986]		

Notes: The values in brackets indicate the *p*-values. For *F*-statistics, the lower bound critical values are 2.2 (p < 0.1), 2.56 (P-value < 0.05) and 3.29 (p <0.01), and the upper bound critical values are 3.09 (p < 0.1), 3.49 (p < 0.05) and 4.37 (p < 0.01). *** p < 0.01; ** p < 0.05; * p < 0.1.

According to Table 3, the computed F-statistic is 11.5687, and corroborates long-run association among the variables at the 1% significance level. Moreover, the Breusch-Godfrey LM test and the Jarque-Bera normality test indicate that residuals are independent and normally distributed. The homoscedasticity hypothesis for residuals is not refuted in accordance with the ARCH statistic. Finaly, the hypothesis of the correct functional specification of Equation 3 is accepted in accordance with the RESET test.

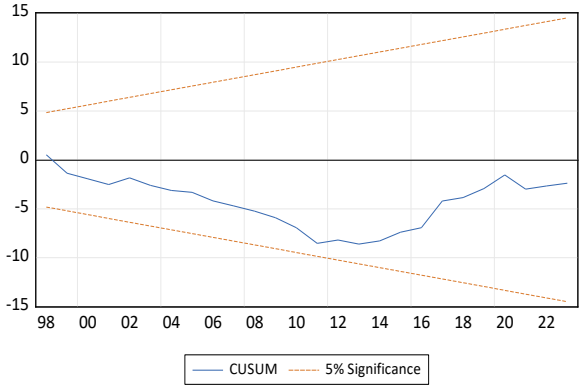

Figure 5. Plot of Cumulative Sum of Recursive Residuals
Source: own

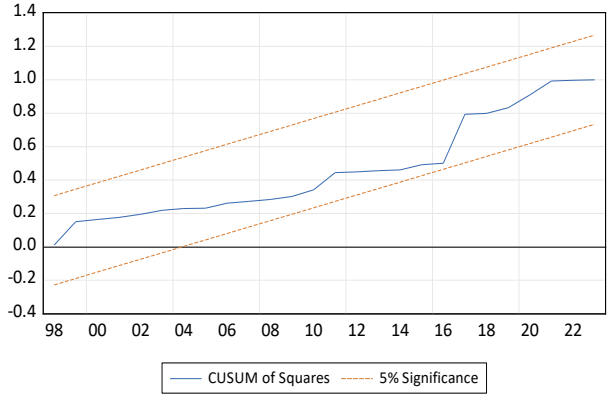

Figure 6. Plot Cumulative Sum of Squares of Recursive Residuals
Source: own

Figures 5 and 6 are plotted according to the tests based on cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ) of recursive residuals. The results indicate the absence of any instability of coefficients because the plots of CUCUM and CUCUMSQ statistics fall inside the critical bounds of the 5% confidence intervals of parameter stability. Therefore, the stability of the long-run and short-run parameters over the period 1980-2023 is confirmed.

[1] Lütkepohl (2006).

5.2 Short and long run outcomes

Table 4 presents the short-run estimates, highlighting a negative and statistically significant error correction term [ECT(-1)] at the 1% level. This term acts as an adjustment parameter, indicating how deviations of the dependent variable from its long-run equilibrium are corrected. It confirms the existence of a long-term equilibrium between the economic diversification index and the independent variables related to fiscal policy in Saudi Arabia. Additionally, 89.74% of the variations in the diversification index are corrected by short-run discrepancies towards the long-term trajectory each year. This suggests that the long-term equilibrium will be reestablished after approximately one year and two months.

Table 4. Short-run estimated coefficients

Variables	*Coefficients*	*Std.Error*	*P-value*
D(*LH*(-1))	-0.1800	0.114320	0.1274
D(*LH*(-2))	-0.2479*	0.126271	0.0604
D(*LH*(-3))	-0.4616***	0.132907	0.0018
D(*Fdi*)	7.08E-07	7.07E-07	0.3257
D(*LGdp*)	1.5152***	0.454707	0.0026
D(*LGdp* (-1))	2.8959***	0.654292	0.0002
D(*LGdp* (-2))	1.8585***	0.488177	0.0008
D(*LGdp* (-3))	3.0160***	0.625649	0.0001
ECT(-1)	-0.8974***	0.098269	0.0000

Notes: *** p < 0.01; ** p < 0.05; * p < 0.1.
Sources: own

According to Pesaran et al. (2001), the long-run relationship was measured by the ARDL model. More precisely, the set of the long-run estimated coefficients ($\gamma' Y_{t-1}$) associated to the independent variables is summarized in the following Table 5.

Table 5. Short-run estimated coefficients

Variable	*Coefficient*	*Std.Error*	*Prob.*
LGE	-0.6354***	0.0890	0.0000
$LCPI$	1.3452***	0.3614	0.0010
Fdi	2.64E-06**	1.00E-06	0.0143
$LGdp$	-0.7066***	0.2361	0.0060
Intercept	16.837***	3.2056	0.0000

Notes: *** p < 0.01; ** p < 0.05; * p < 0.1.
Source: own

The coefficients of all variables turned out to be highly significant and exhibit a unidirectional causality between the economic diversification index and Saudi Arabian fiscal policy. A 1% increase in government expenditure results in a 63.5% decrease in the economic diversification index, suggesting that the economy is becoming less diversified as current expenditures dominate total spending. Similarly, a 1% increase in GDP leads to a 70.7% decrease in diversification, reflecting a trend towards less economic diversification. In contrast, a 1% increase in the consumer price index results in a 1.35% increase in the diversification index, indicating a slight positive effect.

To address these issues, the government must rapidly implement large social programs and investment projects while strengthening fiscal policy tools like subsidies and taxes to achieve price stability. Additionally, the government should sustain an intensive program to manage public finances, in order to enhance expenditure efficiency, increase production, and promote non-oil growth to meet the objectives of Vision 2030.

CONCLUSION AND POLICY IMPLICATIONS

This study analyzes the impact of fiscal policy on economic diversification in Saudi Arabia using an ARDL model with data from 1980 to 2023. The results show a significant cointegrated relationship between fiscal policy variables and the economic diversification index. Since 2016, the government has focused on diversification efforts to align with Saudi Arabia's Vision 2030, aiming to reduce production costs for exports and boost output across all sectors, thereby supporting sustainable development.

The Saudi Arabian economy's dependence on oil revenues exposes it to global price fluctuations, which impact imports and domestic prices. Recognizing the risks associated with relying on oil for GDP, the government has prioritized economic diversification as a strategic goal. To reduce the effects of oil price volatility, it must accelerate diversification reforms. The economic diversification index fell from 0.41 at the start of the study to 0.10 in 2021, despite various programs supporting diversification. While the mining sector has traditionally been the largest GDP contributor, its share has decreased since Vision 2030 was implemented. Meanwhile, contributions from sectors such as manufacturing, trade, government services, financial services, insurance, and real estate have increased, reflecting a trend toward greater economic diversification. Moreover, the government must initiate an industrial strategy sector by promoting local and foreign direct investment to stimulate economic diversification and create job opportunities.

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