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# Modelling the Relationship between Fiscal Policy Tools and Economic Growth in Algeria

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**Abstract:**

This study aimed to clarify the relationship between fiscal policy tools and economic growth of Algeria over the period 1990-2020. To achieve this aim, the study utilised the autoregressive distributed lag (ARDL) co-integration technique. Gross domestic product (GDP) was used as a dependent variable reflecting economic growth and the fiscal policy tools which are represented by management expenses, processing expenses, ordinary taxes and petroleum

taxes. The main findings indicated that if GDP is in disequilibrium, the system will converge back to equilibrium at a speed of approximately 45.59% annually. Management expenses have a positive impact on economic growth in the short and long runs, while processing expenses have a negative impact on growth in the short run and no effect in the long run. Petroleum taxes have no effect on economic growth in the short and long runs. Ordinary taxes have no effect in the short run, but a negative impact in the long run. Based on these results, the study recommended that efforts should be made so that regular and petroleum taxes can be designed in a balanced way to contribute to economic growth. Also, it recommended an optimal use of the processing expenses, thereby encouraging private and foreign investment.

***Keywords:*** *Autoregressive distributed lag (ARDL), Economic growth, Fiscal policy, Management expenses, Ordinary taxes, Petroleum taxes, Processing expenses.*

**JEL Codes:** C22, E62, O23.

## 1. Introduction

The relationship between fiscal policy and economic growth is a very important issue among analysts and economic decision-makers. Fiscal policy is the use of government spending and taxation to influence the economy. Governments typically use fiscal policy to maintain growth and reduce poverty (Horton & El-Ganainy, 2009).

Fiscal policy is able to make an important contribution to lifting potential growth at both the macro and micro levels. At the macro level, fiscal policy helps ensure macroeconomic stability for growth while, at the micro level, tax and expenditure policies are able to boost growth by altering work and investment incentives, promoting human capital accumulation and enhancing total factor productivity (IMF, 2015).

Theoretically speaking, there are two schools of thought that explain the role of public policy in two distinct ways: the neoclassical school of thought and the Keynesians (Nazir et al. 2013). According to the neoclassical view, fiscal policy focuses on the level of output rather than the long-run growth rate. The steady-state growth rate is driven by the exogenous factors of population growth and technological progress, while fiscal policy can affect only the transition path to this steady-state (Kneller, Bleaney, & Gemmell, 1999). Consequently, the differences, in tax systems and in debt and expenditure policy, can be important

determinants of the level of output but are unlikely to have an important effect on the rate of growth (Easterly & Sergio, 1993).

The Keynesian view is contradicted to the neoclassical one; Keynes states that there is a significant influence of fiscal policy on the economy (Surjaningsih, Utari, & Trisnanto, 2012). The Keynesian theory postulates that the more a government spends, the higher the economic growth is, as a result of expansionary fiscal policy. This means that the more government spending trends up, production will grow and therefore, levels of GDP will increase (Sheilla & Nicholas, 2019). However, tax policy is the vital source of the public resources that finance public expenses. Moreover, tax policy can also serve to increase available income, thus fostering expansion of effective demand (Arestis, Fernando, & Fábio Henrique, 2018).

On what concerns Algeria, the observer of the economic conditions of the country during the last three decades realises that the Algerian government's demarche to raise growth rates is based on an expansionary fiscal policy on Keynesian-oriented view. This is due to the large amount of public spending allocated by the Algerian public authorities to influence some macroeconomic variables such as employment, price stability and also the increase in economic growth rates, as the total spending on management and processing increased from 136.5 billion Algerian dinars in 1990 to 7804 billion dinars in 2020 with an average growth rate of 9.14% (Based on the data of the appendix). Also, beginning in 2001, Algeria doubled public spending rates, especially to support the economic recovery programme 2001/2004, the supplementary programme to support economic growth 2005-2009, the five-year programme 2010-2014 and the programme to promote growth 2015-2019 (Merim & Djebar, 2019). Algeria has also worked to reform its tax system to improve tax revenues since 1992. The main objective was to activate the tax system through radical and profound changes in all its legislative and structural aspects to be appropriate to the modern economic policy of the country (Hayoula & Abdat, 2023).

Therefore, this study aims to analyse and measure the relationship between fiscal policy tools and economic growth in Algeria during the period 1990-2020, by adopting a standard model that helps analyse this relationship in the short and long runs.

## 2. Literature Review

The relationship between fiscal policy and economic growth has been studied by several authors in different economies, using different methods. For example, Nguyen and Nguyen (2023) examined the significance of fiscal policy in influencing economic growth, focusing on Vietnam as a developing economy with dynamic changes since 2000. Using the vector error correction model (VECM) on quarterly data from 2000 onwards, the study established a causal relationship between fiscal policy factors such as public debt, government tax revenues and expenditures. The findings highlighted the importance of aligning fiscal policy with economic cycles and employing fiscal tools strategically to foster sustainable public finances and stimulate economic growth in Vietnam. Mengistu (2022) studied the link between fiscal policy and long-run /economic growth in Ethiopia on annual data for 35 years, using the ARDL technique. The results showed unproductive expenditure and non-distortionary tax revenue to be neutral to growth as predicted by economic theory. Also, productive expenditure had a positive effect on growth while there was evidence of distortionary effects on growth of distortionary taxes. Tendengu, Kapingura and Tsegaye (2022) examined the impact of fiscal policy variables on economic growth in South Africa; the study utilised the ARDL model and concluded that the tax revenues have a positive influence on the GDP growth rate in South Africa, while government consumption expenditures have a negative impact. Mugab (2019) examined equilibrium relationships and dynamic causality analyses between economic growth and fiscal policy tools in Jordan, using the ARDL approach and the vector error correction model. The results showed that general government expenditures improve economic growth and tax cut stimulates economic growth. Symoom (2018) examined the impact of fiscal policy on economic growth in four countries, using the ARDL model and the error correction model (ECM). The results showed that both government expenditure and tax revenue have no significant impact on real GDP growth in these four countries. Djelloul et al. (2014) studied the growth effects of fiscal policy in MENA countries, using the generalised method of moments (GMM), and concluded that there is a positive relationship between fiscal policy and economic growth in North Africa and Middle East countries. Abdon et al. (2014) studied the role of fiscal policy in developing Asia's economic growth and found that, in developing Asia, property taxes are more conducive to growth than

personal and corporate income taxes. They also found that the composition of government spending has a significant effect on economic growth.

Regarding Algeria, numerous studies have examined different aspects of fiscal policy, especially what is related to economic growth. For instance, Asma and Abdelkader (2021) examined the effect of fiscal policy on economic growth in Algeria during the period 1980-2018 and used real GDP per capita as a dependent variable, and the independent variables were government spending, direct taxes, indirect taxes, level of public debt and government budget balance. The study found out that public debt and fiscal deficits had a negative impact on economic growth in the long run, and public spending had a positive impact on economic growth in the short and long runs. Concerning direct taxes, the study found that it had a positive relationship with economic growth in the short run but in the long run, however, it became negative. Indirect taxes had a negative effect in the short run, but did not continue to affect in the long run. Amal and Siham (2017) studied the impact of fiscal policy on economic growth in Algeria during the period (1970-2015). The study relied on the VECM model, and the fiscal policy variables were direct and indirect taxes, productive current expenditures, unproductive current expenditures, government capital expenditures, private investment and total labour force. The results of (VECM) indicated that both indirect taxes and productive current expenditures have a significant long-term positive impact on real GDP, while direct taxes, capital and unproductive recurrent expenditures negatively and significantly affect economic growth. Bokreta and Benanaya (2016) examined the relative effectiveness of monetary and fiscal policy in Algeria, by using the co-integration and vector error correction. The fiscal policy variables were government expenditure and net taxes on products. Monetary policy was presented by the inflation rate and the official exchange rate. The study concluded that the impact of government expenditures was positive, while taxes had a negative impact on growth. Additionally, the impact of the exchange rate was insignificant, while the inflation rate was found to have little effect on GDP. Benazza and Benmansour (2016) used the ARDL approach with annual data from 1990 to 2015 to investigate the effect of fiscal policy tools on economic growth in Algeria. The variables include GDP per capita, government expenditure and total public revenues. The results showed that there is a significant negative long run relationship between economic growth and government expenditure, and a significant

positive long run relationship between economic growth and total public revenues.

Despite the importance of previous studies that tackled this issue in the Algerian economy, our study came to clarify the relationship between fiscal policy tools and economic growth, relying on the period from 1990 to 2020. We differed from previous studies in dividing the public spending tool to variables (management expenses and processing expenses) and the separation of the tax tools into two variables (ordinary taxes and petroleum taxes); this is to show the role and impact of each of them and to know which one is the most important for achieving economic growth in Algeria.

## 3. Methodology

In this study, and for the purpose of analysing and measuring the relationship in the short and long runs between fiscal policy tools and economic growth in Algeria, the curricula used in economic studies were relied on, where the quantitative standard method was applied through a modern methodology, which is the autoregressive distributed lag (ARDL) co-integration technique, proposed by Pesaran and Shin (1999) and extended by Pesaran, Smith and Shin (2001). An ARDL test process provides effective results, whether the variables are I(0), I(1) or mutually cointergrated (Pesaran et al., 2001), and when there is a single long run relationship between the underlying variables in a small sample size (Nkoro & Kelvin Uko, 2016). There are two important steps to conduct for the ARDL model: The first step is estimating the F-bounds test for a long-run relationship between the variables. The next step is to derive the error correction model (ECM) from the ARDL model (Ramazan, 2020).

A set of variables was relied upon, one of which is dependent that expresses economic growth, and the rest of the variables are independent, expressing the fiscal policy tools in Algeria; the period between 1990 and 2020 was chosen to conduct the study, where annual data have been relied on with 31 views for each variable. Variables data were collected from the Ministry of Finance in Algeria and from the World Bank database. The variables adopted in the study are the following:

- **GDP:** A dependent variable, reflecting economic growth; its data have been obtained from the World Bank.

- **OTAX:** Independent variable, reflecting ordinary taxes; its data were obtained from the General Directorate of Taxes at the Ministry of Finance.
- **PTAX:** Independent variable, reflecting petroleum taxes; its data were obtained from the General Directorate of Taxes at the Ministry of Finance.
- **MEXP:** Independent variable, reflecting management expenses; its data were obtained from the Budget Directorate at the Ministry of Finance.
- **PEXP:** Independent variable, reflecting processing expenses; its data were obtained from the Budget Directorate at the Ministry of Finance.

Data of variables used in the study are shown in the table in Appendix A.

The functional form of our study model is as follows:

$$GDP = f(OTAX, PTAX, MEXP, PEXP)$$

Depending on the previous methodology, The ARDL version of our model is then specified as:

$$\begin{aligned} GDP = {} & B_0 + B_1 GDP_{t-1} + B_2 OTAX_{t-1} + B_3 PTAX_{t-1} \\ & + B_4 MEXP_{t-1} + B_5 PEXP_{t-1} + \sum_{i=1}^{p} y_1 \Delta GDP_{t-p} \\ & + \sum_{i=1}^{p} y_2 \, \Delta OTAX_{t-p} + \sum_{i=1}^{p} y_3 \, \Delta PTAX_{t-p} \\ & + \sum_{i=1}^{p} y_4 \, \Delta MEXP_{t-p} + \sum_{i=1}^{p} y_5 \, \Delta PEXP_{t-p} + \varepsilon i \end{aligned}$$

Where:

**$\varepsilon$**: The error term. **$\Delta$**: The first difference. **GDP:** Gross domestic product.

**OTAX:** ordinary taxes. **PTAX:** petroleum taxes. **MEXP:** management expenses.

**PEXP:** processing expenses. **$(B_1, B_2, B_3, B_4)$**: long-run relationship coefficients.

**$(y_1, y_2, y_3, y_4)$**: short-run relationship coefficients.

## 4. Results and Discussion

The descriptive statistics of the variables used in this study are presented in Table 1. The analysis reveals that the mean values of GDP, MEXP, PEXP, PTAX and PTAX are 111177949320, 2142.28848, 1228.03029, 1031.19677 and 1286.68977 respectively with the median of 103198223709, 1251.19400, 806.90500, 640.47200 and 1485.699 respectively. The standard deviations of GDP, MEXP, PEXP, PTAX and PTAX are 61832592096, 1786.989285, 1054.714396, 924.391631 and 809.460366 respectively. The gross domestic product (GDP) has changed from a minimum of 41764315330 to a maximum of 213810024944 "current value of the dollar". The minimum values of MEXP, PEXP, PTAX and PTAX are 88.800, 47.700, 71.100 and 76.200 respectively with the maximum of 4863.850, 3039.322, 2836.414 and 2714 respectively "billion Algerian dinars".

**Table 1:** Results of the descriptive statistics for the study variables

| | GDP | MEXP | PEXP | OTAX | PTAX |
|---|---|---|---|---|---|
| **Mean** | 111177949320 | 2142.28848 | 1228.03029 | 1031.19677 | 1286.68977 |
| **Median** | 103198223709 | 1251.19400 | 806.90500 | 640.47200 | 1485.699 |
| **Std dev** | 61832592096 | 1786.989285 | 1054.714396 | 924.391631 | 809.460366 |
| **Minimum** | 41764315330 | 88.800 | 47.700 | 71.100 | 76.200 |
| **Maximum** | 213810024944 | 4863.850 | 3039.322 | 2836.414 | 2714 |

**Source:** Authors' computation using EViews 12 software

To study the time series stability (unit root test) for variables and determine the degree of their integration, this study employed the Augmented Dickey-Fuller (ADF) test and the Philip-Perron (PP) test for their role in testing the null hypotheses of unit root "non-stationary" against the alternative hypothesis of "non-existence" of unit root "stationarity" (Smaili & Khelassi, 2021). Using EViews 12, we conducted ADF and PP unit root tests on all time series, and results in Table 2. It is clear through the results that all variables are integrated to the same order I(1). In this case, we can use the bounds test method. The ARDL model

is the most appropriate for the sample size of this study from 1990 to 2020.

**Table 2:** Results of the (ADF) and (PP) tests

| Variable | ADF | | | PP | | | Order of Integration |
|---|---|---|---|---|---|---|---|
| | T- Statistic | P-Value | Critical Value | T- Statistic | P-Value | Critical Value | |
| **GDP** | -4.648860 | 0.0009** | -2.967767 | -4.652239 | 0.0009** | -2.967767 | **I(1)** |
| **MEXP** | -4.717464 | 0.0007** | -2.967767 | -4.722121 | 0.0007** | -2.967767 | **I(1)** |
| **PEXP** | -5.395809 | 0.0001** | -2.967767 | -5.589745 | 0.0001** | -2.967767 | **I(1)** |
| **OTAX** | -8.290610 | 0.0000** | -2.967767 | -8.290610 | 0.0000** | -2.967767 | **I(1)** |
| **PTAX** | -4.190680 | 0.0028** | -2.967767 | -3.794312 | 0.0076** | -2.967767 | **I(1)** |

**Source:** Authors' computation using EViews 12 software

After checking the unit root test, the next stage is necessary to choose the appropriate lag length before applying the ARDL bounds test. To illustrate the relative lag length, we use the Akaike Information Criteria (AIC). The results of this test, shown in Figure 1, indicate that, after estimating 16 models, the optimal lag length was at (1,1,1,1,1), meaning that the lag value is 1 for all variables.

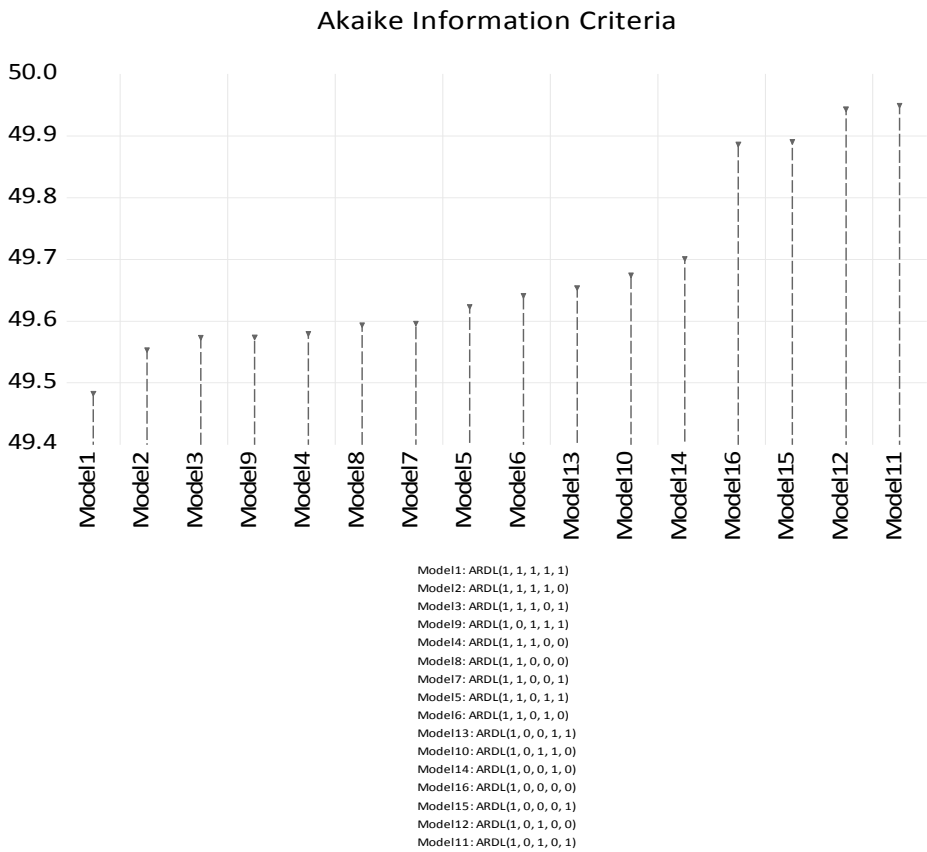



**Fig. 1:** Optimal lag selection
**Source:** Authors' computation using EViews 12 software

To test if there is any long-run relationship between economic growth and variables that represent fiscal policy tools, we use the bounds test and the results shown in Table 3. We find that the F-statistics value of (4.82) presented in the ARDL bounds test and by comparing it with the corresponding scheduling value calculated by Pesaran et al. (2001) in the case of a fixed limit and without a general trend only. Where K=4, we find it greater than the critical values at the 1%, 5% and 10% significance levels. These give the possibility of estimating the error correction model for finding the short and long effects of fiscal policy tools on economic growth.

**Table 3:** ARDL bounds test Result

| **F-Bounds Test** | | **Null Hypothesis: No levels relationship** | | |
|---|---|---|---|---|
| **Test Statistic** | **Value** | **Signif.** | **I(0)** | **I(1)** |
| **F-statistic** | 4.827349 | 10% | 2.2 | 3.09 |
| **k** | 4 | 5% | 2.56 | 3.49 |
| | | 2.5% | 2.88 | 3.87 |
| | | 1% | 3.29 | 4.37 |

**Source:** Authors' computation using EViews 12 software.

The next step is the error correction model (ECM), short-run relationship and long-run relationship between the model variables. The results of this step are shown in Table 4 as follows:

**Table 4:** ECM, short and long-run regression results

| **ECM Regression, short-run** | | | | |
|---|---|---|---|---|
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| D(MEXP) | 49590708 | 8029281. | 6.176232 | 0.0000 |
| D(PEXP) | -33320698 | 10769504 | -3.093986 | 0.0048 |
| D(OTAX) | -16079386 | 9835941. | -1.634758 | 0.1146 |
| D(PTAX) | 8173832. | 5336219. | 1.531765 | 0.1381 |
| CointEq(-1)* | -0.455922 | 0.075771 | -6.017069 | 0.0000 |

| | | | |
|---|---|---|---|
| R-squared | 0.697801 | Mean dependent var | 2.77E+09 |
| Adjusted R-squared | 0.649450 | S.D. dependent var | 1.78E+10 |
| S.E. of regression | 1.06E+10 | Akaike info criterion | 49.14973 |
| Sum squared resid | 2.79E+21 | Schwarz criterion | 49.38326 |
| Log likelihood | -732.2459 | Hannan-Quinn criter. | 49.22444 |
| Durbin-Watson stat | 2.106666 | | |

* p-value incompatible with t-Bounds distribution

| **Long-run** | | | | |
|---|---|---|---|---|
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| MEXP | 65756920 | 21121451 | 3.113277 | 0.0046 |
| PEXP | -11365368 | 42664471 | -0.266390 | 0.7921 |
| OTAX | -92905012 | 24917587 | -3.728491 | 0.0010 |
| PTAX | 50987844 | 26718028 | 1.908369 | 0.0679 |
| C | 1.21E+10 | 1.42E+10 | 0.849317 | 0.4038 |

EC = GDP - (65756920.1081*MEXP -11365368.1052*PEXP - 92905011.6054*OTAX + 50987844.2669*PTAX + 12091611940.3052)

**Source:** Authors' computation using EViews 12 software

We notice through Table 4 that the error correction coefficient is negative (-0.455922) and significant because its probability is less than 5%. This means that if GDP is in disequilibrium, the system will converge back to equilibrium or to its steady state position at a speed of approximately 45.59% annually. $R^2$ value has reached (0.6978) as the interpreting variables control 69.78% of the changes that occur in the size of the gross domestic product (GDP). This means that there is a strong correlation between economic growth and the variables expressing fiscal policy tools.

As for the relationship of these variables to economic growth in the short run, the management expenses (MEXP) and processing expenses (PEXP) are statistically significant at the 5% level, and they have an impact on economic growth. Ordinary taxes (OTAX) and petroleum taxes (PTAX) are non-moral at the 5% significance level. Thus, these two variables have no effect on economic growth in the short run.

Concerning the long-run relationship, it is noticed that the processing expenses (PEXP) and petroleum taxes (PTAX) are non-moral at the 5% significance level. Consequently, these two variables have no impact on economic growth in the long run. The management expenses (MEXP) and ordinary taxes (OTAX) are statistically significant at the 5% level and have an impact on economic growth in the long run.

Regarding the diagnostic tests of the model, we relied on a set of standard statistical tests to identify the appropriateness of the model adopted in measuring the estimated flexibilities in the long term, and these tests are inconsistency test for error variance (using the ARCH test), autocorrelation test between errors (using the serial correlation LM test) and also normal distribution test for random errors. The results of these tests are shown in the Table 5 and Figure 2.

**Table 5:** Results of the ARCH test and serial correlation LM test

| **Heteroskedasticity Test: ARCH** | | | |
|---|---|---|---|
| F-statistic | 2.564234 | Prob. F(1,27) | 0.1209 |
| Obs*R-squared | 2.515296 | Prob. Chi-Square(1) | 0.1127 |
| **Breusch-Godfrey Serial Correlation LM Test:** | | | |
| Null hypothesis: No serial correlation at up to 2 lags | | | |
| F-statistic | 0.465519 | Prob. F(2,18) | 0.6352 |
| Obs*R-squared | 1.475415 | Prob. Chi-Square(2) | 0.4782 |

**Source:** Authors' computation using EViews 12 software

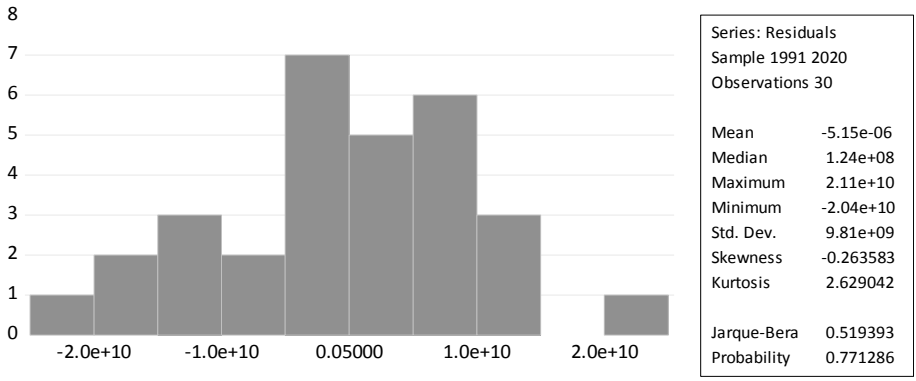
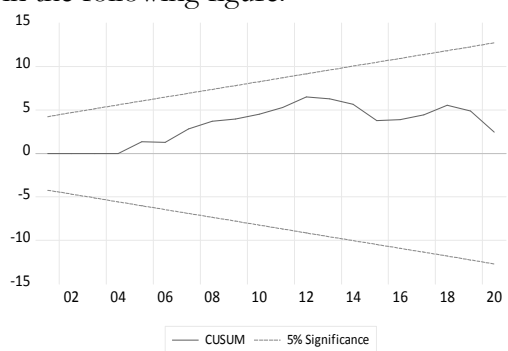



**Fig. 2:** Normal distribution test for random errors
**Source:** Authors' computation using EViews 12 software.

Through Table 5, the ARCH test shows us that the residues do not suffer from heteroscedasticity because F value amounted to 2.56 with a probability of (0.12) which is greater than 5%. This result enables us to accept the null hypothesis for the stability of the variance of error term series. We are also led by the result of the Breusch-Godfrey Serial Correlation LM test to accept the null hypothesis stating that there is no sequential autocorrelation between errors because the calculated value of F (0.46) is less than the table value with a probability greater than 5% (0.63>0.05). And through Figure 2, we conclude that the residues are normally distributed because the probability value associated with the Jarque-Bera statistic is 0.77, which is greater than 5%; thus, we cannot reject the null hypothesis.

To reveal the structural stability of the estimated parameters within the short and long -term relationship, we used the cumulative sum (CUSUM) and cumulative sum of squares (CUSUM SQ) tests, and the results are shown in the following figure:



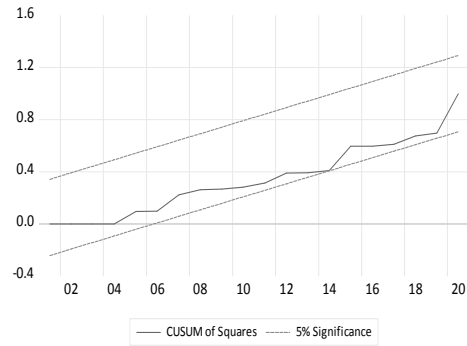



**Fig. 3:** Results of the (CUSUM) and (CUSUM SQ) tests
**Source:** Authors' computation using EViews 12 software

It is clear through the results of the tests in Figure 3 that there is stability and consistency in the model according to long-run and short-run results, and therefore, there is no structural change in the used data over the study period because the cusum and cusum of squares appear within the critical limits at a significance level of 5%.

## 5. Conclusion and Recommendations

The focus of the study was on analysing and measuring the relationship between fiscal policy tools and economic growth in Algeria in light of the adoption of expansionary fiscal policy on Keynesian-oriented view, using the ARDL approach with annual data from 1990 to 2020. Economic growth (GDP) was used as a dependent variable, and the fiscal policy tools were used as independent variables. Empirical results revealed that if GDP is in disequilibrium, the system will converge back to equilibrium or to its steady state position at a speed of approximately 45.59% annually. Management expenses have a positive impact on economic growth in the short run, while processing expenses have a negative impact on growth. Ordinary taxes and petroleum taxes have no effect on economic growth in the short run. Concerning the long-run relationship, processing expenses and petroleum taxes have no impact on economic growth. Moreover, management expenses have a positive impact on economic growth, while ordinary taxes have a negative impact on economic growth in the long run.

Regarding these results, the positive impact of management expenses on growth in the short run and long run is economically acceptable because it is greatly represented in the expenses of users in the public

sectors. The Algerian economy is dominated by the public sector more than the private sector, so the government always seeks to improve the wages of employees and work on training them and developing their skills continuously to increase their productivity. The negative impact of the processing expenses in the short run and no effect in the long run is expected because they include investment in the production sectors that lead to an increase in economic growth. This does not happen in Algeria, as investment is largely directed towards one sector, which is hydrocarbons, and there is no balance between public and private investment since public investment is predominant. As for ordinary taxes and their negative impact on economic growth in the long run, this is contrary to the economic theory and is proven to be a defect in the Algerian tax system, despite the reforms adopted since 1992. Petroleum taxes and their lack of impact on economic growth was contrary to the reality of the Algerian economy that depends heavily on the collection of revenues on the income of hydrocarbons. This is due to the misuse of these resources and not directing them towards productive projects that support economic growth and directing them towards consumption to a high extent.

Finally, our study recommends making efforts to move towards the policy of economic diversification by developing non-hydrocarbons sectors to increase the effectiveness of ordinary taxes and the balance between them and petroleum taxes, and their contribution in economic growth. Also, the use of tax revenues, especially petroleum taxes, should strengthen the infrastructure and support investments in the productive sectors that increase the productivity of the economy and stimulate growth. We have to apply the optimal use of processing expenses and enhance the investment climate by encouraging private and foreign investment.

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## Appendices

**Appendix A:** Data of variables used in the study

| | current value of the dollar | billion Algerian dinars | | | |
|---|---|---|---|---|---|
| **Years** | **GDP** | **MEXP** | **PEXP** | **OTAX** | **PTAX** |
| 1990 | 62048562947 | 88.8 | 47.7 | 71.1 | 76.2 |
| 1991 | 45715614560 | 153.8 | 58.3 | 82.7 | 161.5 |
| 1992 | 48003078389 | 276.131 | 144 | 108.8 | 193.8 |
| 1993 | 49945599429 | 291.417 | 185.21 | 121.4 | 179.218 |
| 1994 | 42543178042 | 330.403 | 235.926 | 176.1 | 222.176 |
| 1995 | 41764315330 | 473.694 | 285.923 | 241.992 | 336.148 |
| 1996 | 46941582519 | 550.596 | 174.013 | 290.603 | 495.997 |
| 1997 | 48177612042 | 643.555 | 201.641 | 314.013 | 564.765 |
| 1998 | 48187747529 | 663.855 | 211.884 | 329.828 | 378.556 |
| 1999 | 48640653469 | 774.695 | 186.987 | 314.767 | 560.221 |
| 2000 | 54790392746 | 856.193 | 321.929 | 349.502 | 1173.237 |
| 2001 | 54744712815 | 963.633 | 357.395 | 398.238 | 956.389 |
| 2002 | 56760355865 | 1097.716 | 452.93 | 482.896 | 942.904 |
| 2003 | 67863828413 | 1122.761 | 567.414 | 524.925 | 1284.975 |
| 2004 | 85332581189 | 1251.194 | 640.714 | 580.411 | 1485.699 |
| 2005 | 103198223709,439 | 1245.132 | 806.905 | 640.472 | 2267.836 |
| 2006 | 117027307540,89 | 1437.87 | 1015.144 | 720.884 | 2714 |
| 2007 | 134977082623,78 | 1674.031 | 1434.638 | 766.75 | 2711.85 |

| | | | | | |
|---|---|---|---|---|---|
| 2008 | 171000699876,747 | 2217.775 | 1973.276 | 965.289 | 1715.4 |
| 2009 | 137211035770,034 | 2300.023 | 1946.311 | 1146.612 | 1927 |
| 2010 | 161207270185,25 | 2659.078 | 1807.862 | 1297.944 | 1501.7 |
| 2011 | 200013052199,2 | 3897.252 | 1974.363 | 1527.093 | 1529.4 |
| 2012 | 209058991952,125 | 4782.634 | 2275.539 | 1908.576 | 1519.4 |
| 2013 | 209755003250,664 | 4131.548 | 1892.595 | 1031.019 | 1615.9 |
| 2014 | 213810024944,464 | 4494.423 | 2501.442 | 2091.456 | 1577.73 |
| 2015 | 165979279263,174 | 4617 | 3039.322 | 2354.648 | 1722.94 |
| 2016 | 160034163871,455 | 4585.645 | 2711.93 | 2482.208 | 1682.55 |
| 2017 | 170097014589,134 | 4677.259 | 2605.448 | 2630 | 2127 |
| 2018 | 174910878623,049 | 4500 | 2300 | 2648.5 | 2349.694 |
| 2019 | 171767403748,19 | 4788.98 | 2772.008 | 2836.414 | 2518.488 |
| 2020 | 145009181490,62 | 4863.85 | 2940.19 | 2531.96 | 1394.71 |

**Source:** Ministry of Finance in Algeria, and World Bank database.