

The Impact of Social Transfers on Economic Growth in Algeria: An Empirical Study Using the ARDL Model

أثر التحويلات الاجتماعية على النمو الاقتصادي في الجزائر: دراسة قياسية باستخدام نموذج ARDL

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Abstract:

This study aims to analyze the impact of social transfers in Algeria on economic growth through an econometric analysis based on the Autoregressive Distributed Lag (ARDL) model. The study employs Gross Domestic Product (GDP) as the dependent variable, while the independent variables consist of various forms of government support.

The results reveal that certain types of government support, such as housing and health subsidies, have a positive effect on economic growth. In contrast, other transfers—such as support for Mujahideen—were found to be statistically insignificant. The study also confirms the existence of a long-run equilibrium relationship between social transfers and economic growth, highlighting the importance of developing sustainable support policies to maximize benefits without placing undue pressure on the national budget.

Keywords: Social transfers; economic growth; ARDL model.

ملخص:

تهدف هذه الدراسة إلى تحليل أثر التحويلات الاجتماعية في الجزائر على النمو الاقتصادي، من خلال دراسة قياسية تعتمد على نموذج الانحدار الذاتي لفترات الإبطاء الموزعة (ARDL). حيث استخدمت الدراسة إجمالي الناتج المحلي (GDP) كمتغير تابع، بينما تمثلت المتغيرات المستقلة في مختلف أشكال الدعم الحكومي.

أظهرت النتائج أن بعض أشكال الدعم الحكومي، كدعم السكن والصحة، تؤثر إيجابيًا على النمو الاقتصادي، في حين أن بعض التحويلات الأخرى لم تكن ذات دلالة إحصائية كبيرة. كما أكدت الدراسة وجود علاقة توازنية طويلة الأجل بين التحويلات الاجتماعية والنمو الاقتصادي، مما يشير إلى أهمية تطوير سياسات دعم مستدامة لضمان تحقيق أقصى فائدة ممكنة دون الضغط على الميزانية العامة للدولة.

كلمات مفتاحية: التحويلات الاجتماعية، النمو الاقتصادي، نموذج ARDL.

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1. INTRODUCTION

Social transfers are among the economic policies adopted by many countries, aiming to improve the living conditions of citizens, achieve social justice, and enhance social stability. They also contribute to reducing economic disparities among different segments of society. In Algeria, successive governments have adopted public support policies since independence as a fundamental tool for economic and social intervention. These transfers have constituted a significant part of public expenditure, largely relying on oil revenues as the main source of funding. To a certain extent, these policies have contributed to poverty reduction and improved access to basic services such as health, housing, and others.

However, global economic changes—particularly the decline in oil prices—have generated new challenges that directly affected the state's ability to continue financing support policies at previous levels. The drop in public revenues has intensified financial pressures, prompting the need to reform the social transfer system to ensure its sustainability and effectiveness. This highlights the need to redirect support policies toward those who truly need them, rather than distributing them indiscriminately, which often leads to resource depletion without achieving the desired outcomes.

In this context, studying the relationship between social transfers and economic growth becomes crucial, especially in light of the efforts aimed at achieving inclusive and sustainable development. While such transfers can be an effective tool to stimulate growth when directed toward productive sectors or human capital development, they may also become a burden on the budget if they lack efficiency and fairness in distribution.

Based on the above, this study seeks to answer the following research problem:

To what extent have social transfers contributed to achieving economic growth in Algeria? And how effective is this policy in light of the current economic challenges?

To address this problem, we propose the following general hypothesis:

Public support in its various forms contributes to stimulating economic growth in Algeria.

2. Literature Review

The literature examining the impact of social transfers on economic growth is quite extensive. This impact has been studied across numerous countries—particularly developing ones—using various time periods and econometric models. Most of these studies have reached a key conclusion: there is a long-term relationship between social transfers and economic growth.

Using housing support as a form of social transfer, (Barro, 1990), in one of his studies rooted in endogenous growth theory, and pointed out that investment in infrastructure such as housing and human capital can enhance long-term economic growth. This finding is consistent with the results of Andrews and All (Andrews, 2011), who explained that liberalizing the housing market can positively influence economic growth. Similarly, OECD (2020) concluded that housing support programs in developing countries play an effective role in reducing poverty and stimulating economic activity.

In this context, (Romer, 1994) also emphasized the importance of public spending on health and education, considering that such transfers increase human capital productivity and support economic sustainability. In the same vein, a recent study conducted by Aghion, Boustan, Hoxby, &

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Vandenbussche (2009) found that investment in education and health produces cumulative effects on human capital, thereby increasing growth rates in both the short and long term—provided the accompanying policies are effective and geared toward enhancing efficiency and innovation.

From the perspective of pension support, Holzmann (Holzmann, 2001) warned about the “crowding-out” effect, where unproductive social transfers such as pensions may reduce public investment expenditure, thereby weakening long-term economic growth. Similarly, the IMF (2019) concluded that although social transfers are important in reducing inequality, they can become a fiscal burden if not accompanied by structural reforms aimed at boosting productivity and ensuring financial sustainability. The same applies to symbolic transfers, as highlighted by Boudiaf et al. (Boudiaf, 2021) (2021), which may weaken economic performance and increase fiscal deficits, unlike transfers directed toward productive sectors such as health and housing that support economic growth.

3. Empirical Methodology and Data

3.1 Data Description

The study analyzes the impact of government support on economic growth by employing the Gross Domestic Product (GDP) as the dependent variable, while various forms of social transfers serve as independent variables. The brief description of the study variables is presented in Table 1.

Table 1: Summary Description of the Variables Used in the Study

Variable	Description
Y	Gross Domestic Product (GDP)
X1	Housing Subsidies
X2	Pension Support
X3	Healthcare Support
X4	Family Support
X5	Support for Mujahideen
X6	Support to Vulnerable Groups

Source: Compiled by the author based on data from the World Bank and the Algerian

Ministry of Finance.

The dependent variable is GDP (Y), while independent variables include various forms of social transfers (X1 to X6), all measured in billion DZD.

3.2 Estimation Methodology

Spurious regression refers to situations where the use of non-stationary time series in linear regression leads to misleading or overly optimistic results, suggesting the existence of a relationship between variables when, in fact, no true relationship exists. To address this issue, several techniques can be employed to test for the existence of a long-run equilibrium relationship — known as cointegration — among the time series variables.

In this study, we adopt a relatively new approach introduced by Pesaran (1997), Pesaran and Smith (1989), Pesaran and Shin (1999), and Pesaran et al. (2001). This method is known as the Autoregressive Distributed Lag (ARDL) approach, which performs well with small sample sizes and does not require all variables to be integrated at the same order. It remains applicable when variables are a mixture of $I(0)$ and $I(1)$. Furthermore, the ARDL model allows for simultaneous estimation of both long-term and short-term dynamics using the Bounds Testing approach for cointegration.

In this context, the ARDL framework is applied to investigate the impact of government support (social transfers) on economic growth. The general ARDL model specification takes the following form:

$$\Delta Y_t = \beta_0 + \underbrace{\left\{ \sum_{i=1}^n \beta_i \Delta y_{t-i} + \sum_{i=0}^n \delta_i \Delta x_{t-i} \right\}}_{\text{Short-Run Dynamics}} + \underbrace{\{\varphi_1 y_{t-1} + \varphi_2 x_{t-1}\}}_{\text{Long- Run}} + \mu_t \dots (1)$$

Where:

Δ : First difference operator; β_i, δ_i : Short-run coefficients; φ_1, φ_2 : Long-run coefficients in the ARDL model and μ_t : Error term (white noise).

Within the framework of this study, and assuming that government support

affects economic growth — which we measured by Gross Domestic Product (GDP) — it is theoretically expected that changes in social transfers have a positive impact on economic growth. Accordingly, the estimated ARDL model can be expressed as follows:

$$\begin{aligned} \Delta Y = & \beta_0 \sum_{i=1}^p \beta_1 \Delta X1_{t-i} + \sum_{i=0}^{q_1} \delta_1 \Delta X2_{t-i} + \sum_{i=0}^{q_2} \delta_2 \Delta X3_{t-i} + \\ & \sum_{i=0}^{q_3} \delta_3 \Delta X4_{t-i} + \sum_{i=0}^{q_4} \delta_4 \Delta X5_{t-i} + \sum_{i=0}^{q_4} \delta_4 \Delta X6_{t-i} + \varphi_1 X1 + \varphi_2 X2_{t-1} + \\ & \varphi_3 X3_{t-1} + \varphi_4 X4_{t-1} + \varphi_5 X5_{t-1} + \varphi_6 X6_{t-1} + \\ & \mu_t \dots \dots \dots (02) \end{aligned}$$

Where: p denotes the number of lags for the dependent variable (Y) and q_i represents the number of lags for each of the independent. The Akaike Information Criterion (AIC) is used to determine the optimal lag structure for the ARDL model (q_i p). In addition, we perform diagnostic tests for heteroscedasticity, normality of residuals, and serial correlation.

Once serial correlation is ruled out, the Bounds Test is conducted. This test essentially applies the Fisher joint significance test for the coefficients of the level variables. The null hypothesis H_0 indicates no long-run relationship, while the alternative hypothesis H_1 suggests the existence of a long-run cointegration among the variables.

Once long-run cointegration is established, both the long-run relationship and the short-run dynamics of the ARDL model $ARDL(p, q_1, q_2, q_3, q_4, q_5, q_6)$ are estimated. Finally, the stability of the estimated model is assessed using CUSUM and CUSUMQ tests applied to the residuals.

4. Presentation of Results:

In order to examine the impact of government support on economic growth, the cointegration approach known as "Bounds Testing" was employed. The application of this technique is strongly dependent on the stationarity of the series under study.

4.1 Stationarity Testing of the Series

Before proceeding with the ARDL approach, we tested the stationarity of the different series to ensure that none of them is integrated of order two or higher. In fact, the "Bounds Test" would not be valid if any variable were integrated of order two or above.

Therefore, we employed the Augmented Dickey-Fuller (ADF) test (1981) and the Phillips-Perron (PP) test (1988). Table (2) presents the results of both tests for the various series, showing that all series are stationary at first difference (i.e., the null hypothesis of stationarity is rejected for all series at level). Accordingly, there is no series integrated of order two (I(2)) or higher, which is a necessary condition for the application of ARDL models.

Table 2. Results of Unit Root Tests (ADF and PP)

Variable	PP Test		ADF Test		Decision
	At first difference	At level	At first difference	At level	
Y	-4.3766 (0.018)	0.853781 (0.9933)	-4.446619 (0.0015)	0.765992 (0.9917)	I(1)
X ₁	-9.2427 (0.000)	-1.706904 (0.4177)	-3.90673 (0.0247)	-1.853894 (0.3485)	I(1)
X ₂	-6.6469 (0.0000)	-0.590160 (0.8584)	-6.51500 (0.000)	-0.741611 (0.8209)	I(1)
X ₃	-5.2735 (0.0002)	1.761637 (0.9995)	-5.13135 (0.0003)	0.455189 (0.9821)	I(1)
X ₄	-5.4912 (0.0001)	-0.230801 (0.9229)	-5.434914 (0.0001)	0.416761 (0.8939)	I(1)
X ₅	-5.7211 (0.0001)	0.415446 (0.9803)	-5.680428 0.0001)(	0.4703315 (0.9827)	I(1)
X ₆	-10.5837 (0.0000)	-0.421127 (0.0001)	-5.550722 0.0009)(	7.619942 (1.000)	I(1)

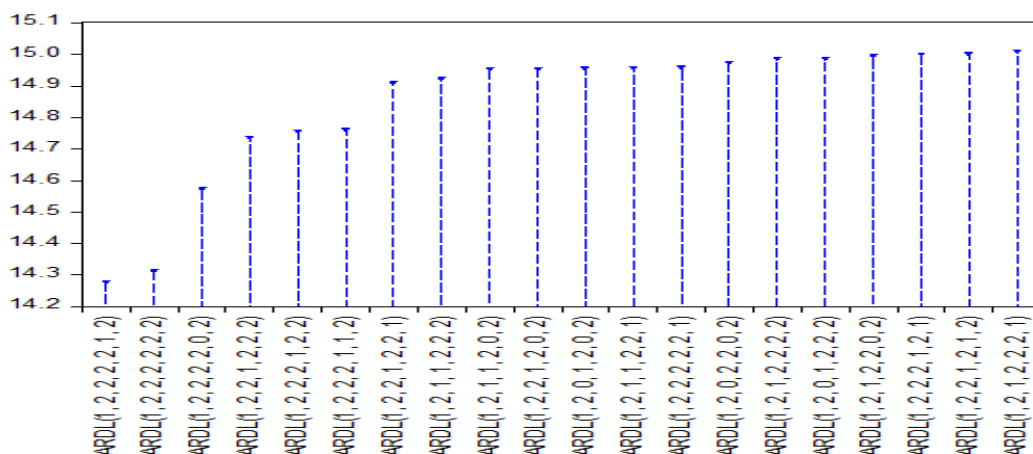
Source: Author's calculations using Eviews software

4.2 Selection of the Appropriate Model Based on the Number of Lags

To select the appropriate number of lags for the model to be estimated, we relied on the Akaike Information Criterion (AIC) (see Figure 01).

This figure presents the top twenty models, where it is shown that the selected model is ARDL (1,2,2,2,2,1,2), which corresponds to the lowest AIC value. It slightly outperforms the ARDL(1,2,2,2,2,2,2,2) model, which in turn performed slightly better than the ARDL(1,2,2,2,2,0,2) model.

Fig.1. Model Selection Chart According to the Akaike Information Criterion (AIC)



Source: Prepared by the author based on Eviews 10 outputs

Note:

1. *** indicates that H_0 is rejected at the 1% significance level.
2. The critical value is taken from Pesaran et al. [2001, Table 2], for the case without a trend and with an unrestricted intercept. The first value corresponds to the lower bound, and the second value corresponds to the upper bound.

4.3 Bounds Test for Cointegration

The bounds test primarily relies on the joint Fisher (F) statistic with asymptotic distributions as presented by Narayan P.K. (2005), under the null hypothesis of no cointegration. The results below indicate the existence of a long-run relationship among the study variables, as the Fisher statistic (13.42527) exceeds the upper

bound at various significance levels. This leads to the rejection of the null hypothesis of no cointegration.

Table 3. Results of the Bounds Test

Significance Level 1%	Significance Level 5%	Significance Level 10%	F-Statistic
I(0) Bound: 3.15 I(1) Bound: 4.43	I(0) Bound: 2.45 I(1) Bound: 3.61	I(0) Bound : 2.12 I(1) Bound : 3.23	13.42527***

Source: Author's calculations using Eviews software

4.4 Diagnostic Tests of the Error Correction Model (ECM):

To verify the validity of the estimated model and its ability to capture the long-run relationship, we performed the standard diagnostic tests, including residual autocorrelation, normality, and homoscedasticity tests. The results indicated that the residual series exhibits all the required statistical properties.

Table 4. Diagnostic Test Results

Test	Statistic	Probability
Autocorrelation of Errors (LM)	2.099132	0.1850
Normality (Jarque-Bera)	0.894036	0.639532
Homoscedasticity (ARCH)	0.350977	0.9744

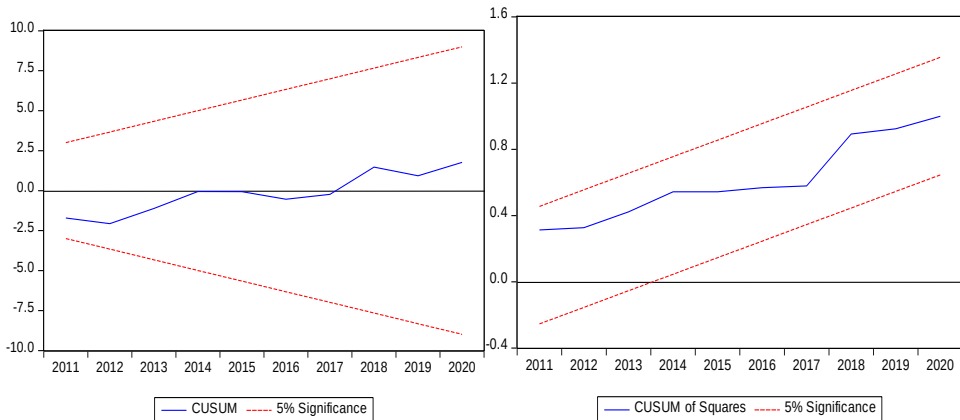
Source: Author's calculations using Eviews software.

4.5 Stability Tests.

After estimating the ECM model and confirming its statistical adequacy, we conducted tests for the stability of both the long-run parameters and the short-run dynamics based on the Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) tests, as proposed by Borensztein et al. (1998). The same tests were also applied by Pesaran (1998), Mohsen et al. (2002), and Suleiman et al. (2005).

The results indicate the stability of the estimated parameters, as the CUSUM and CUSUMSQ statistics remain within the critical bounds of the 5% confidence interval, confirming parameter stability.

Fig.2. CUSUM and CUSUMSQ Stability Tests.



Source: Author's calculations using Eviews software

4.6 Empirical Results

4.6.1. Short-Term Dynamics

The estimates presented in Table (8), which relate to short-term dynamics, indicate that the majority of the coefficients of the studied variables are statistically significant at various confidence levels (1%, 5%, and 10%). This implies that they have a meaningful effect on gross domestic product (GDP) in the short run. However, the direction of this effect varies between positive and negative, except for the variable "Support for Mujahideen" (X5), whose coefficient was found to be statistically insignificant.

Moreover, the results of the cointegration model showed that the estimated error correction term (-0.471341) falls within the confidence interval, indicating that it is highly statistically significant. This confirms the existence of a long-run relationship between social transfers and economic growth. It also suggests that, in the event of a shock, the return to equilibrium would take approximately 2.12 years.

4.6.2 Long-Term Relationships

The estimation results of the long-run equilibrium relationship indicate that all coefficients of the studied variables are statistically significant at all conventional significance levels ($\alpha = 1\%$, 5% , and 10%), except for the variable representing support for veterans, which remains

statistically insignificant across all significance levels. The signs of the coefficients vary between positive and negative.

These findings confirm that social transfers and their relationship with economic growth represent a long-term phenomenon in Algeria. The long-run equilibrium equation can be expressed as follows:

$$\text{Cointeq} = Y - (0.163829 \cdot X_6 - 0.231654 \cdot X_5 - 0.728442 \cdot X_4 + 1.387645 \cdot X_3 - 1.156372 \cdot X_2 + 0.843271 \cdot X_1 + 19.053705) \dots\dots\dots(3)$$

Table 5. Long-Run Coefficients of the ARDL Model

T-Statistic (Prob).	Std. Error	Coefficient	.Variable
2.638227 (0.0271)	0.319584	0.843271	X1
9.301748 (0.0000)	0.124318	-1.156372	X2
11.009392 (0.0000)	0.126037	1.387645	X3
-3.009363 (0.0113)	0.242071	-0.728442	X4
-0.201675 (0.8448)	1.148361	-0.231654	X5
0.175308 (0.8671)	0.934276	0.163829	X6
1.157581 (0.2693)	3.710682	4.295731	C

Source: Author's calculations based on Eviews 10 output

5. Interpretation of Results:

The long-run equilibrium estimates indicate that the elasticity of housing support (X1) with respect to economic growth (Y) is approximately 0.84, significant at the 1% level. This implies that a one-unit increase in housing support contributes to increasing GDP by around 0.84%. This finding aligns with Keynesian theory, which posits that increased government spending on essential sectors such as housing stimulates aggregate demand and drives economic growth. As a vital sector, investment in housing reduces unemployment and revitalizes connected economic sectors, thus promoting growth.

This result is supported by several studies, including the International Monetary Fund ((IMF), 2015), which concluded that increased investment in the housing sector raises employment and drives a multiplier effect across other sectors. Endogenous growth theory—especially from Barro (1990) and Romer (1994)—also indicates that government investment in

infrastructure and housing enhances human capital productivity and fosters a sustainable growth environment. Additionally, the OECD (2020) found that housing support programs in developing countries play a key role in alleviating urban poverty and promoting growth when they are well designed and targeted. Locally, Bouyacoub (Bouyacoub, 2018) concluded that Algerian government programs—such as the “ADL” housing program and social housing—boosted domestic demand and revitalized the real estate market, positively impacting macroeconomic indicators during certain periods.

Regarding pension support (X2), the elasticity was -1.156 , significant at the 1% level. This suggests that a one-unit increase in pension support results in a 1.15% decrease in GDP. This does not imply that pension support as a social policy is inherently harmful; rather, it may create economic imbalances if financing and management are inadequate. Given the chronic deficits in pension funds—attributed to various reasons—these pensions become a financial burden on public finances. Instead of channeling substantial resources into productive investment, they become a form of consumption that generates no added value and thus hinder economic growth.

This conclusion aligns with other research, such as IMF (2019), which noted that unsustainable pension systems in developing nations create significant financial pressures that impede growth unless accompanied by structural reforms. Holzmann et al. (2006) further emphasized that high social transfers not tied to productivity can crowd out investment. In the Algerian context, Boudiaf et al. (2021) found that social transfers—including pension support—had a negative effect on growth when they exceeded sustainable fiscal limits and were associated with increasing deficits rather than productive investment.

As for the elasticity of health expenditure support, it amounted to 1.387, indicating that a one-unit increase in health support leads to a 1.387% increase in GDP growth. This supports endogenous growth theories, which view investment in health as a source of wealth: effective health systems improve individual productivity and control treatment costs,

reinforcing long-term economic growth. This result is consistent with studies such as Qi Hu and All (Hu, 2024), and other sensitive results including Wang, F (Wang, 2015) and Ridhwan, M. (Ridhwan, 2022).

The results also show that Algerian economic growth is entirely inelastic with respect to Mujahideen support (X5) over both the short and long run: its coefficient was statistically insignificant at all levels. This reflects the symbolic and non-productive nature of this support, aimed at a very limited demographic that is itself decreasing due to demographic changes. Economically, such symbolic support is ineffective as a growth tool, as it does not accumulate capital, increase productivity, or enhance consumption—unlike core sectors like education, health, and housing. It is categorized as a non-productive, coerced social transfer that, although potentially socially or politically motivated, provides no tangible economic return. This result is unique to Algeria and finds little direct backing in economic literature. Public-choice theory (Buchanan) stresses that public expenditures must meet economic efficiency criteria, and resource misallocation—regardless of historical or political motivations—undermines fiscal policy effectiveness.

Regarding support for the needy (X6), we observed a pattern similar to that for Mujahideen support: no statistically significant impact on economic growth. Although these transfers reduce poverty among vulnerable groups—which represent a small segment of the population—their overall impact remains limited compared to support directed to productive sectors or essential services. This is because targeted aid for narrowly defined groups with limited economic influence does not translate into substantial macroeconomic growth. This finding is supported by studies such as the OECD (2019), which showed that social transfers target the poor but have limited impact on overall growth, especially in the absence of productivity-enhancing infrastructure. Similarly, a World Bank report (2025) noted that a large share of the poor remains outside adequate support (less than 11% of their income), thus limiting the potential macroeconomic impact of such transfers.

6. Conclusion

This study has investigated the relationship between social transfers and economic growth in Algeria over the period 2000–2018, using the Autoregressive Distributed Lag (ARDL) approach to explore both short- and long-term effects. The findings reveal a nuanced impact of various categories of social transfers on economic performance.

Specifically, government support directed toward housing and healthcare demonstrates a significant positive impact on economic growth. These forms of support are consistent with endogenous growth theories that emphasize investment in human capital and infrastructure as engines of long-term development. On the other hand, transfers such as pension support appear to exert a negative influence on growth, likely due to their fiscal burden and lack of productive return, especially when unaccompanied by structural reforms.

Moreover, symbolic or non-productive transfers—such as those for Mujahideen or narrow aid programs targeting small vulnerable groups—were found to have no statistically significant impact on GDP, either in the short or long run. These results underscore the need to differentiate between productive and non-productive social expenditures in public policy.

The empirical evidence confirms the existence of a long-run equilibrium between social transfers and economic growth, reinforcing the argument that the quality and targeting of social policies matter more than their sheer volume. In light of Algeria's persistent budgetary constraints and the volatility of oil revenues, there is a pressing need for a more strategic and selective approach to social transfers—one that maximizes their economic impact while preserving social justice.

Policy implications suggest that Algeria should reform its support mechanisms to enhance efficiency, prioritize investment in human capital, and shift resources toward sectors that yield long-term economic benefits. This will ensure that social policies are not only equitable but also economically sustainable.

7. Bibliography List :

- (IMF), I. M. (2015). *Making Public Investment More Efficient*. États-Unis: IMF Policy Paper.
- Andrews, D. C. (2011). Housing Markets and Structural Policies in OECD Countries. *OECD Economics Department Working Paper*, 1-55.
- Barro, R. J. (1990). Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy*, P103-125.
- Boudiaf, N. &. (2021). Social transfers and growth nexus in Algeria: An empirical assessment using ARDL approach. *Revue Économie & Finance Appliquée*, 3-25.
- Bouyacoub, B. e. (2018). The Role of Public Housing Programs in Economic Development in Algeria. *Revue des Sciences Humaines (Université Algérienne)*, 67-74.
- Holzmann, R. P. (2001). On the Economics and Scope of Implicit Pension Debt: An International Perspective. *Empirica*, 97-129.
- Hu, Q. &. (2024). Economic growth effects of public health expenditure in OECD countries: An empirical study using the dynamic panel threshold model. *Heliyon. Elsevier*, 1–15.
- Ridhwan, M. M. (2022). The Effect of Health on Economic Growth: A Meta-Regression Analysis. *Empirical Economics*, 3211–3251.
- Romer, P. (1994). The Origins of Endogenous Growth. *Journal of Economic Perspectives*, 3-22.
- Wang, F. (2015). More Health Expenditure, Better Economic Performance? Empirical Evidence from OECD Countries. *International Journal of Health Sciences*, 41-49.
- الشناوي، أ.، وعبد المجيد، ك. 2021. أثر التحويلات الاجتماعية على توزيع الدخل في الجزائر. *مجلة البحوث الاقتصادية*، 9(2)، 120-135. <https://doi.org/10.1016/j.econ.2021.08.004>
- بن عيسى، ع.، وبلقاسم، ب. 2022. أثر التحويلات الاجتماعية على النمو الاقتصادي في الجزائر خلال الفترة 1990-2019. *مجلة الاقتصاد والمالية*، 8(1)، 15-30. <https://doi.org/10.34118/jef.v8i1.220811>
- بركات، أ.، وسليم، ط. 2017. أثر الدعم الحكومي على التنمية الاقتصادية: تحليل اقتصادي كمي. *مجلة المالية العامة*، 8(1)، 30-47. <https://doi.org/10.4018/978-1-7998-3030-6>

The Impact of Social Transfers on Economic Growth in Algeria: An Empirical Study Using the ARDL Model.

- بوخاري، ع.، وبلقاسم، ب. 2019. تحديد القطاعات الاقتصادية المرجعية لدفع النمو الاقتصادي في الجزائر. *مجلة الاقتصاد التطبيقي*، (2)، 7، 90-75. <https://doi.org/10.12816/0051934>
- اللجنة الاقتصادية والاجتماعية لغرب آسيا (الإسكوا). 2020. الأثر الاقتصادي والاجتماعي للحكومة المفتوحة: توصيات سياسيته للبلدان العربية. الأمم المتحدة. <https://doi.org/10.18356/9789210049601>
- بوشملا، ن.، وقرشي، ي. 2020. تحليل العلاقة بين الإنفاق الاجتماعي والنمو الاقتصادي في الجزائر. *مجلة الاقتصاد النقدي والمالي*، (3)، 11، 102-85. <https://doi.org/10.1080/10167834.2020.182739>
- بوشمال، ك. 2019. تحليل فعالية السياسات الاجتماعية في الجزائر: بين العدالة الاجتماعية والكفاءة الاقتصادية. *مجلة السياسات العامة*، (2)، 10، 110-95. <https://doi.org/10.1007/s11115-019-00479-3>
- منظمة العمل الدولية. (2019). التوجهات الحديثة في سياسات الحماية الاجتماعية في الدول النامية. *التقرير السنوي لمنظمة العمل الدولية*. <https://doi.org/10.1177/0038038519886300>
- حمدي، س.، وعلي، م. 2018. إصلاح أنظمة التقاعد في الجزائر: دراسة مقارنة مع تجارب دولية. *مجلة الاقتصاد والتخطيط*، (4)، 13، 225-210. <https://doi.org/10.1002/pad.1849>
- صابر، م.، ويوسف، ب. 2021. الحوكمة الاقتصادية ودورها في تعزيز فعالية التحويلات الاجتماعية: دراسة حالة الجزائر. *مجلة الاقتصاد الكلي*، (1)، 14، 72-55. <https://doi.org/10.1080/10242694.2021.1949731>
- منظمة التعاون والتنمية الاقتصادية (OECD). 2020. الحماية الاجتماعية والاستدامة المالية في الدول النامية. *تقرير السياسات الاقتصادية 2020-en*. <https://doi.org/10.1787/5d4b7a84-en2020>