

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993 - 2022

قياس أثر التحويلات الاجتماعية على التنمية البشرية في الجزائر خلال الفترة: 1993-2022

Dr. BELOUAFI Abdelmalik

University Of Ahmed Daria - Adrar (Algeria), belouafi_abdelmalik@univ-adrar.edu.dz

Received: 11/02/2025

Accepted: 26/03/2025

Published: 31/03/2025

Abstract:

The study aims to measure the effect government social transfers on the Human Development in Algeria using annual data for the period 1993 to 2022, by model ARDL, Relying on the Human Development Index issued by the United Nations Development Program. The results revealed the existence of a co- integration relationship between government social expenditures and the Human Development Index in the long term, the study also showed the positive effect of social transfers as a percentage of GDP and national income per capita on the Human Development Index in the short term. In addition, the study expound, through the correction coefficient, the length of time that the Human Development Index takes to return to moderate in the long term when any changes occur in social transfers as a percentage of GDP and per capita income.

Keywords: Social Transfers; Human Development; Public Expenditure; ARDL Model; Algeria.

JEL Classification Codes : O15, H55, H75.

ملخص:

تهدف الدراسة إلى قياس تأثير التحويلات الاجتماعية الحكومية على مؤشر التنمية البشرية في الجزائر باستخدام بيانات سنوية للفترة 1993-2022 باستخدام نموذج ARDL، كما اعتمدت الدراسة على مؤشر التنمية البشرية الذي يعده برنامج الأمم المتحدة الانمائي. وكشفت نتائج الدراسة عن وجود علاقة تكامل مشترك بين النفقات الحكومية الاجتماعية ومؤشر التنمية البشرية في الأجل الطويل، كما أظهرت الدراسة التأثير الإيجابي للتحويلات الاجتماعية كنسبة من الناتج المحلي الإجمالي وكذلك نصيب الفرد من الدخل القومي على مؤشر التنمية البشرية في الاجل القصير. بالإضافة إلى ذلك أوضحت الدراسة من خلال معامل التصحيح عن طول فترة عودة مؤشر التنمية البشرية إلى التوازن في الأجل الطويل عند حدوث أي تغيرات في التحويلات الاجتماعية كنسبة من الناتج المحلي الإجمالي ونصيب الدخل الفردي.

كلمات مفتاحية: التحويلات الاجتماعية، التنمية البشرية، الانفاق العام، نموذج ARDL، الجزائر.

تصنيفات JEL: O15، H55، H75

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

Introduction:

In recent decades, human development has received great attention from governments, civil society organizations, politicians and academics, considering it a goal that all countries seek to achieve, expressing the level of well-being of their individuals by improving their living conditions, considering that the human being is the essence and ultimate goal of comprehensive development, contrary to the prevailing approaches and theories that considered economic growth as the ultimate goal, in this regard, all countries, including Algeria, seek to achieve it. In order to raise the standard of living of its citizens, Algeria has adopted a social policy since its independence, embodied by the amounts allocated in development plans and programs and its annual general budget, including social transfers as a form of the general current spending directed to low-income groups.

Accordingly, this study came to know the extent to which government social expenditures in Algeria contribute to expanding options for all citizens, especially those with limited income.

Study Problem:

This study came to answer the basic problem included in the following main question: What is the impact of social transfers on the human development index in Algeria?

Study hypotheses: This study seeks to test the following two hypotheses:

- There is a mutual integration relationship between government social expenditures and human development in Algeria.
- There is a positive effect of social transfers and human development in Algeria.

Study objectives:

- Knowing the development of the size of government social transfers in Algeria during the period studied.
- Identifying the nature of the indicator that measures the level of human development and tracking its development in Algeria
- Knowing the extent of the relationship between government social expenditures and human development and the relationship between them in Algeria.
- Highlighting and measuring the level of effect of government social expenditures on human development in Algeria

Importance of the study: the current study derives its importance from the fact that improving the level of human development is a goal of comprehensive development, and accordingly we find great interest from the Algerian government to achieve it, and this is evident through the size of annual social transfers that it allocates to some groups, especially those with low incomes, in order to improve their standard of living. Also, its contribution to enhancing the national income.

Methodology followed in the study: Three approaches were used, starting with the descriptive and analytical, to describe the study variables and analyze their indicators and developments during the period studied. and the standard method to try to build a model to measure the relationship between government social transfers and human development in Algeria. During the period (1993-2022) using (ARDL) methodology using EVIEWS version 12.

Previous studies:

There are many applied studies that discussed the topic of human development and its determinants. Below we review some of those studies:

- Study (Ramadani , 2022): The study addressed the effect of social transfers on increasing the Human Development Index, decreasing inequality, and reducing the poverty rate and the study found a direct relationship between social transfers and the Human Development Index, and an inverse relation between social transfers and the Gini index, and poverty rate in North Macedonia.

- Study (Richardson , 2014): This study analyzed the effects between public expenditure and human development index case of Nigeria based on data 20 cities. and the result showed that there is a positive relationship between education, health, agriculture, rural development, energy, housing, environmental protection, spending on potable water resources, and human development, as spending on these sectors enhances human development, the results of the study also revealed that current and capital spending had negative and positive effects on human development across the states and years under study, although the relative impact of capital spending was greater than current spending in improving human development.

- Study (Al-Raqibi, 2024), this study aimed to measure the effects of spending on education and human development in Libya (1990 – 2012), and the effect of the relationship of the independent variables represented by (spending on education, economic growth, unemployment rate) on the dependent variable represented by the human development index was measured using the ARDL methodology. The study reached several results, the most important of which are: Libya was classified according to the Human Development Index as a country with average achievement. The results of the model estimation showed that there is a long-run relationship between spending on the education in Libya and the Human Development, in addition to a relationship with a positive and significant effect of economic growth on the Human Development and a relationship with a significant and inverse effect of unemployment on the Human Development.

-Study (Kouidri, 2015) to investigate the implications of transfers on the poverty phenomenon in Algeria, by building a standard model of the impact using (OLS) method, and this is based on the poverty rate according to the upper poverty line as well as the human poverty rate. It was found that the poverty rate according to the upper poverty line is determined by the total social transfers and by three items of these transfers, which are: The amounts of social transfers allocated to housing, family, and retirees. As for the human poverty rate, it is determined by only two variables from the social transfer items, which are: social transfers allocated to support electricity, gas, and water, as well as the amounts of social transfers allocated to retirees. Accordingly, the poverty phenomenon in Algeria has been affected by these variables.

Through the applied studies that we reviewed in this study and the studies that were reviewed, it became clear to us that there is still a research gap that has not been explored regarding the impact of social transfers on human development the case of Algeria, given that social transfers directed in particular to improving the standard of living of low-income groups. Accordingly, this study came to cover this research gap.

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

1-The reality of social transfers in Algeria

Social transfers are an important tool used by the state in order to achieve a set of goals, the most important of which are social goals, such as achieving social justice among members of society and improving their standard of living (Ministry of Finance, 2015, p. 20), in addition to economic and political goals.

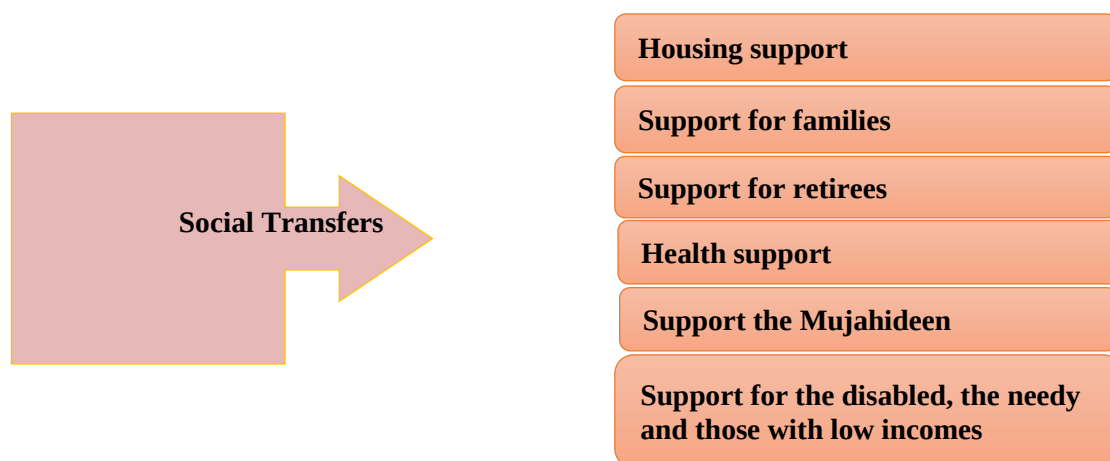
Algeria is among the countries that attach great importance to social transfers as they contribute to achieving human development, and this is what we can infer from the amount of financial amounts allocated annually within the framework of its general budget, despite the criticism it faces internally and externally regarding its size and those entitled to it.

1-1The development of the volume of social transfers in Algeria (1993-2022)

Social transfers in Algeria fall within the section related to operating expenses, as they are current expenses of a social nature directed to specific sectors with the aim of providing support to specific (Gradin, 2020, p. 157). Since its independence, Algeria has worked to care for the social aspect of its citizens by adopting a social policy aimed at advancing the human element, believing that the human being is the basis of development, despite the changes that the economic approach in Algeria has undergone from a socialist to a capitalist system.

Law 84-17 of July 1984 on finance laws is considered the first law to explicitly establish social transfers in the state budget, within current expenditures (management) under Title IV (Government Interventions) of Section VI (Social Activities, Assistance, Solidarity). Social transfers are highlighted in detail through the annual draft finance laws, through which we can know the composition and components of social transfers in Algeria, as illustrated in the following figure:

Fig (01): Structure of social transfers in Algeria



Source: Report on the Presentation of the Finance Law Project 2015, p: 39

It is noted from Figure (01) that social transfers targeted sectors related to the citizen's life, such as housing, health, support for families, retirees, the disabled, the needy, and those with low incomes in particular, in order to ensure a decent life for the them.

To know the size of public spending directed to the limited- income people during the period in terms of the financial amounts included in the state budget, the following table N°(01) clarifies this:

Table (01): The volume of social transfers in Algeria during the period (1993-2022)

<u>Year</u>	<u>social transfers (10³ DZD)</u>	<u>ST/GDP(%)</u>	<u>Year</u>	<u>social transfers (10³ DZD)</u>	<u>ST/GDP(%)</u>
1993	89,94	7,61	2008	1164,04	10,54
1994	113,174	7,67	2009	1207,855	12,1
1995	141,434	7,16	2010	1239,26	10,3
1996	167,38	6,77	2011	2065,074	14,3
1997	198,37	7,18	2012	1868,5	11,6
1998	255,116	9,17	2013	1574,361	9,5
1999	273,844	8,59	2014	1609,123	8,6
2000	280,958	6,98	2015	1830,314	11
2001	358,861	9,17	2016	1841,57	9,8
2002	394,945	9,26	2017	1624,923	8,4
2003	433,065	8,39	2018	1763,817	8,7
2004	449,429	9,31	2019	1820,767	8,8
2005	437,998	8,42	2020	1847,516	9,8
2006	596,37	7,01	2021	2073,173	9,5
2007	708,57	7,58	2022	1942,004	8,4

Source: Ministry of Finance, Report on the Presentation of the Finance Law Project,

It is noted from Table N° (01) the development of social transfers during the study period, as they moved from 89.94 billion DA in 1993 as their lowest value to 1942 billion DA in 2022 and recorded the highest value in 2021 at 2073.173 billion DA, which expresses the position and importance of social transfer allocations in the state's annual general programs and budgets as a priority over public spending to achieve social goals in the first place, in addition to other factors that contributed to this development, including the improvement of fuel revenues at the beginning of the current millennium in addition to the increase in the population. Despite the fluctuations that some years have witnessed, which are largely attributed to the changes in oil prices during the study period, given that the Algerian economy and thus budget revenues are dependent on the revenues of the hydrocarbon sector, which are affected by developments in oil prices, the determination of which is subject to the global oil market, the state has continued to allocate a significant portion to social transfers, as well as the Covid-19 crisis, which caused most activities to stop, which necessitated the provision of subsidies to producers, private sector employees (Ministry of Finance, 2021, p. 3) and health sector employees (Ministry of Finance, 2023, p. 11), which led to an increase in the size of government spending directed to vulnerable groups during 2021 and 2022.

The evolution of the size of social transfers can also be expressed through their ratio to the gross domestic product, where this ratio was estimated at 9% during the average study period. The ratio of social transfers to the gross domestic product also reached its highest value in 2011, where it was estimated at 14.3%, due to the volume of transfers, which amounted to 2,065.374 billion dinars.

In general, it can be said that this expansion in the volume of social transfers is primarily due to the Keynesian approach adopted by the Algerian state through supporting demand through approved plans and programs to stimulate economic growth on the one hand

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

and achieve human development by improving the living standards of citizens, and this is through following an expansionary spending policy at the beginning of the millennium, and it was helped in this by the improvement of oil revenues due to the rise in oil prices (Koudri, 2015).

2-The reality of human development in Algeria

Promoting human development is a goal that every country aims to achieve, considering that the human being is the essence of development, but the question is what are the factors that achieve human development and can it be measured? In our search for an answer to this question, especially since the beginning of the discussion of human development was during the last two decades of the last century, we found many approaches and indicators, the most important of which is the Human Development Index issued by the United Nations through its development program, which considered that human development is a process of enlarging people's choices (UNDP, 1990, p. 1).

2-1 Human Development Index:

It is an international measure of the level and status of human development in each country. We note here that the number of countries currently included in this index is 193 countries in the world. The first publication of this report was in 1990 and it has become periodically issued every year. This index consists of three main dimensions: health, education and income. Through it, countries are classified according to the level of human development according to the point obtained and confined to the field [0 - 1] as follows:

- Low [0 – 0.55[
- Medium [0.55- 0.699]
- High [0.7 – 0.799]
- Very high [0.8 - 1]

The approach to this index is based on the human being, given that previous approaches and theories sought to achieve high economic growth and considered the human being as a factor of production only. Accordingly, the approach to the Human Development Index came to clarify the extent to which members of society benefit from economic growth in achieving their various needs.

The main Human Development Index consists of three sub-indicators as follows:

- The health index is expressed by the average age at birth.
- The average number of years of schooling expresses the education index.
- The per capita share of national income indicates the income index .

We point out here that the development index, its dimensions and indicators have undergone many improvements and amendments through various annual reports (UNDP , 2010, p. 15), with the aim of creating an index that realistically and correctly express the level of human development.

This index is used to achieve a set of purposes, the most important of which are:

- Helping countries discover the level of development
- Measuring the development efforts made by each country.
- Comparison and follow-up.
- A guide in the state's public policy strategy.

2-2- The reality of human development in Algeria through the Human Development Index:

After its independence in the sixties of the last century, Algeria has worked to improve the living conditions of its citizens through a set of mechanisms and policies that were translated into development plans until the nineties, then the stage of economic reforms with international financial institutions, then the stage of economic recovery programs from the beginning of the millennium until now, in addition to public expenditures included in the annual general budget. This is what led to Algeria being positioned within the category of countries with high human development throughout the period of our study (1993-2022) through the Human Development Index, and the following table shows this:

Table (02): Evolution of the Human Development Index in Algeria

YEAR	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
HDI	0.602	0.603	0.607	0.618	0.626	0.635	0.644	0.652	0.659	0.668	0.675	0.683	0.69	0.696	0.701
YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
HDI	0.709	0.716	0.721	0.725	0.726	0.729	0.732	0.736	0.738	0.738	0.74	0.742	0.73	0.74	0.745

Source: Prepared by the researcher based on: UNDP, United Nations Development Programme, Human Development Reports, Online data source: <https://hdr.undp.org/data-center/documentation-and-downloads>.

From table(02) it is clear that the index increased in Algeria (1993-2022), as its value moved from 0.602 in 1993 to 0.745 in 2022, which placed Algeria in 93rd place globally in 2022, with the exception of the decline recorded in 2020, where its value was estimated at 0.73, a decrease of 0.012 points from 2019 (Economic, Social and Environmental Council, 2024), to rise again in 2022, this improvement is due to the efforts made by Algeria to improve the standard of living of its citizens, if I may say so, because the judgment about whether human development has been achieved or not requires taking into account other aspects, including equality and balance between regions, classes and categories.

3- Measuring the effect of social transfers on the human development in Algeria

3-1- Model specifications:

As previously mentioned, the aim of this study is to estimate the effect of government social transfers as a government intervention tool to support vulnerable in human development in Algerian economy, using ARDL method Developed by Pesaran et al, and based on what most theoretical and experimental studies have concluded that there is an impact of government social expenditures on human development, the size of this impact varies from one country to another.

Accordingly, to determine the appropriate form of the study model, we relied on two specific explanatory variables for the dependent variable represented by the Human Development Index (HDI), namely: social transfers (ST) and the per capita share of gross national income (GNI), to obtain the general form of the shown below:

$$HDI = f(ST, geni) \dots\dots\dots(01)$$

To know the equilibrium relationship in the tow ranges, we use

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

(ARDL) methodology. This is after we have reached the necessity of introducing the logarithm to the variables to avoid fluctuations and achieve homogeneity. Accordingly, we write the long-run relationship as follows:

$$\ln HDI = \beta_0 + \beta_1 (\ln HDI)_{t-1} + \beta_2 (\ln ST)_{t-1} + \beta_3 (\ln geni)_{t-1} + \varepsilon_t \dots \dots \dots (02)$$

Where:

- β_0 : represents the constant term.
- HDI: Human Development Index.
- ST: ratio of social transfers to GDP.
- $\beta_1, \beta_2, \beta_3$: long-run coefficients of human development for: ST,
- ε_t : random error term.

For the short-term relationship and the (ECM), they are formulated according to the equation:

$$\Delta(HDI)_t = \beta_0 + \sum_{i=1}^n \beta_1 \Delta(\ln HDI)_{t-1} + \sum_{i=1}^n \beta_2 \Delta(\ln ST)_{t-1} + \sum_{i=1}^n \beta_3 \Delta(\ln Geni)_{t-1} + \psi(ECT)_{t-1} + \varepsilon_t \dots \dots \dots (3)$$

3-2 Data description: this study relied on annual data covering the period (1993-2022) obtained from various sources. This study uses three variables:

- Dependent variable: represented by the Human Development Index, which we symbolized with the symbol (HDI), obtained from the Human Development Reports.
- Independent variables: represented by two variable, which is:
 - ST: It represents social transfers as a percentage of GDP, and was obtained from the draft finance law for different years in Algeria.
 - Geni: It represents the per capita share of gross national income according to purchasing power parity at constant prices of the US dollar in 2017, it was also taken from a site Human Development Reports.

3-3 Stability test:

Philips-Peron test and the ADF test were used to determine the degree of integration of the variables and to check the presence of a unit root or stability for all study variables. This test examines the null hypothesis that the variable in question contains a unit root, meaning that it is unstable, versus the alternative hypothesis that the variable in question does not contain a unit root, meaning that it is stable. The test results are shown in Table (03) and (04) below.

Table (03): Unit root test results using (PP)

Variables		With Constant	With Constant & Trend	Without Constant & Trend	degree of integration
<u>lnHDI</u>	At level	-3.3430**	-0.0259	-5.9166***	I(0)
	At first difference	-4.0118**	-6.9381***	--1.8946*	
<u>lnST</u>	At level	-2.7831*	-2.9697	0.1278	I(1)
	At first difference	-7.8307***	-8.7453***	-7.9571***	
<u>lngeni</u>	At level	-1.3948	-0.2782	1.9162	I(1)
	At first difference	-4.4855***	-5.2991***	-3.8041***	

Source: Researcher's achievement based on the outputs of Eviews version 12

Table (04): Unit root test results using (ADF)

Variables		With Constant	With Constant & Trend	Without Constant & Trend	degree of integration
<u>lnHDI</u>	At level	-3.3048**	0.2160	-1.1796	I(0)
	At first difference	-0.9539	-5.7251***	-1.0140	
<u>lnST</u>	At level	-2.7831*	-2.9697	-0.0867	I(1)
	At first difference	-5.9031***	-5.8860***	-5.9929***	
<u>lngeni</u>	At level	-1.5012	0.0354	2.5200	I(1)
	At first difference	-4.3973***	-5.2991***	-3.5524***	

Source: Researcher's achievement based on the outputs of Eviews version 12

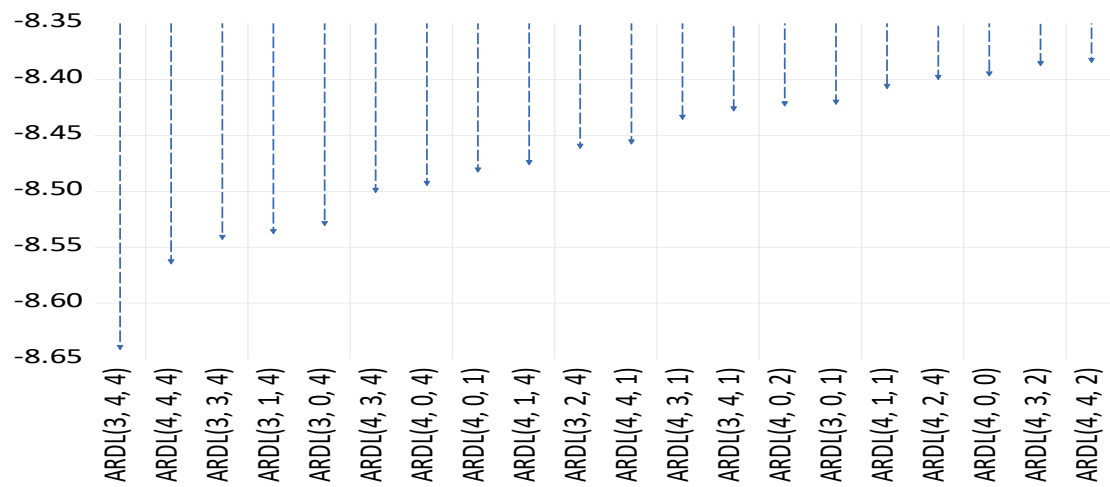
From the results shown in Table (03) and (04), we conclude that all study variables are stable at a level less than the second difference according to the Philips-Peron test and the ADF test, as it became clear that all series are stable. Therefore, we accept H_1 which states that the variables do not have a unit root. The test results also indicate the absence of any integrated variable of the second degree (I2). witch allows the use of the bounds test.

3-4- Testing the lag period and the optimal model:

According Akaik, the optimal delay period was determined with four periods as shown in Figure (02):

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

Fig (02): Optimal lag periods according to the Akaik criterion for the (ARDL) model
Akaike Information Criteria (top 20 models)



Source: EvIEWS12 outputs

It is clear from Fig (02) that the optimal ARDL model is (3,4,4) for the optimal lag periods for the study variables concerned, according to the order and sequence, as it was chosen from among 20 proposed models.

3-5- Joint Integration Test:

Table (05) below shows the results of the bounds test to determine the existence of joint integration between the study variables.

Table (05): Results Bounds Method Test

F Statistic	Critical values	significance level		
		%1	%5	%10
F=13.02908	Min I (0)	4.13	3.1	2.63
	Max I (1)	5	3.87	3.35

Source: Researcher's achievement based on the outputs of EvIEWS version 12

Through the results of the bounds test, we concluded that the calculated F statistic value $F=13.02908$ was greater than the maximum value of the bounds test, which means that the H_0 is rejected, and H_1 is accepted that the study variables are integrated variables together and a balance relationship is achieved between them in the long runge at a significance level of 1%.

3-6- Estimating the long-term relationship: After we concluded that there is joint integration between the model variables, we will estimate the relationship in the long rung, table (06) shows that:

Table (06): Results of long-term relationship estimation

EC = LNHDI - (0.0198*LNST + 0.2405*LNGENI - 2.5806)		
Long Run Coefficients		
<i>Variable</i>	<i>Coefficient</i>	<i>Prob</i>
LNST	0.019844	0.4073
LNGENI	0.240545	0.0011
C	-2.580574	0.002

Source: Researcher's achievement based on the outputs of Eviews version 12

The results of the long-term estimates shown in Table (06) indicate that the parameter expressing social transfers as a percentage of GDP was positive, indicating the presence of a positive impact of social transfers as a percentage of GDP on the human development index, which indicates the presence of a direct relationship between them, as increasing social transfers as a percentage of GDP by 1% leads to an increase in the human development index by 0.019%, but it is a weak and insignificant effect. The estimation results also showed the positive impact and direct relationship between per capita income and the human development index, as increasing per capita income by 1% leads to an increase in the human development index by 0.24% with statistical significance..

3-7- Estimating the short-term coefficients and ECM:

The results of the (ECM) estimation of the human development index and the independent variables for measuring the short-term relationship and to know the speed of correcting the error by rebalancing in the long term. Are shown in Table (07)

Table (07): Results of estimating the short-term coefficients and ECM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHDI(-1))	-0.644130	0.151013	-4.265382	0.0011
D(LNHDI(-2))	-1.045795	0.215934	-4.843116	0.0004
D(LNST)	0.012270	0.003948	3.107741	0.0091
D(LNST(-1))	0.009209	0.003640	2.529870	0.0264
D(LNST(-2))	0.010519	0.003882	2.709871	0.0190
D(LNST(-3))	0.006834	0.003410	2.003971	0.0682
D(LNGENI)	0.155936	0.024718	6.308662	0.0000
D(LNGENI(-1))	-0.003054	0.032388	-0.094303	0.9264
D(LNGENI(-2))	0.040791	0.035161	1.160102	0.2686
D(LNGENI(-3))	0.120393	0.033689	3.573650	0.0038
CointEq(-1)*	-0.370892	0.045952	-8.071269	0.0000

Source: Researcher's achievement based on the outputs of Eviews version 12

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

The results indicate that social transfers as a percentage of GDP, when increased by 1%, lead to an increase in the Human Development Index by 0.012%, which indicates a positive but weak effect at a significance level of 1% on the Human Development Index in the short term. This is what economic theory and some previous studies have proven. The same applies to the per capita share of national income, as an increase in the per capita share of national income by 1% leads to an increase in the Human Development Index by 0.15%, indicating the existence of a direct relationship with a statistical significance estimated at 0.000%.

It is also clear from Table (07) that ECM coefficient is negative(-0.3708) and statistically significant at a significance level of 1% (0.000), which proves the achievement of a long-run relation between the explanatory variables represented by government social transfers as a percentage and the share of per capita income in the national income and the dependent variable represented by the Index. It also indicates that 37% of the imbalances in the Index in the previous year from its equilibrium values in the long term are corrected in the current year.

3-8 Diagnostic Tests:

Table (08): Summary of Tests Results

Tests	F-statistic	Probability	Result
Correlation LM Test: Breusch-Godfrey Serial	3.008397	0.0949	no serial correlation problem
Heteroskedasticity Test: Breusch-Pagan-Godfrey	1.541412	0.2307	no heteroskedasticity problem
Normality test (Jarque-Bera)	2.686729	2.260966	residuals follow a normal distribution

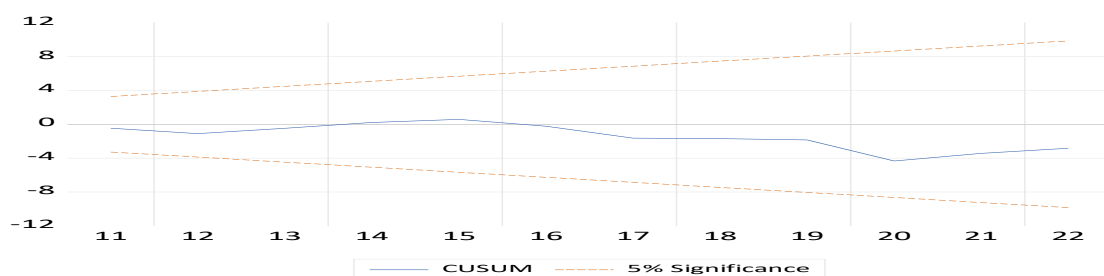
Source: Researcher's achievement based on the outputs of Eviews version 12

The results Diagnostic Test show the no serial correlation problem and no heteroscedasticity in the model and it is also normally distributed and correctly specified.

3-9 Stability Test

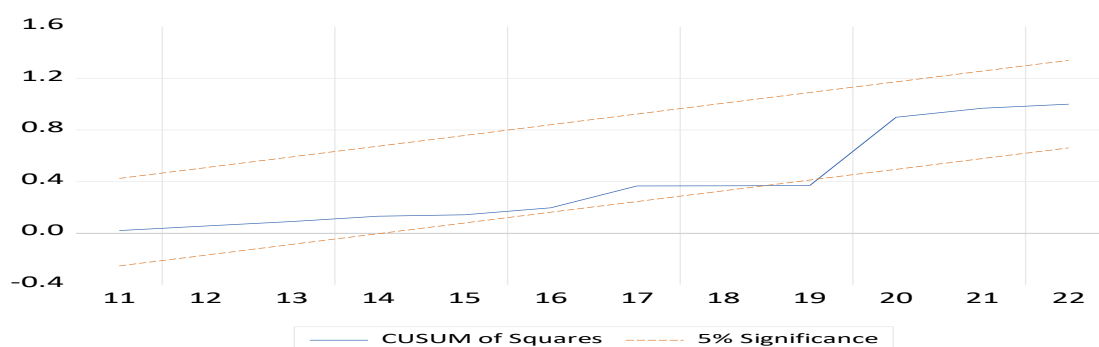
The stability of the ARDL Error Correction Model is examined using the Cumulative Sum and Cumulative Sum Squares. condition of stability of the model is if the plots fall within the critical bounds at the significance level 5%.

Fig (03): Plot of Cusum



Source: Eviews12 outputs

Fig (04): Plot of Cusum Squares



Source: Eviews12 outputs

From figures 3 and 4 above it is shown that the plots fall within the critical bounds at 5 % which implies that the estimated coefficients are statistically stable, which also confirms the significance of the relationship between social transfers and the Human Development.

Conclusion:

This study dealt with an analytical and measurement study of government subsidies and their relationship to enhancing human development for period from 1993 to 2022 using ARDL model, as many theoretical and experimental studies have gone to the important role of government social expenditures in improving the level of individuals, and this also reached in Algeria where the two hypotheses of the study were first proven. There is a joint integration relationship between government social transfers and human development in Algeria and positive impact.

The study reached a set of results including:

- The status of social benefits in the Algerian economy through the increase in the annual social transfers allocations in the general budget, which contributed to achieving a high human development in Algeria.
- Through testing the limits of joint integration, the study found that there is joint integration between government social transfers.
- It was also found that there is a relationship between government social transfers as a percentage of GDP and the human development, which is consistent with the economic theory that considers the positive impact of social transfers on the human development.
- The study also showed the positive effect of social transfers as a percentage of GDP and per capita income on the human development index in the long and short term, which is what economic theory stipulates.
- The study also showed that the error correction coefficient the length of the period for the index to return to equilibrium in the long term when any changes occur in social transfers as a percentage of GDP and per capita income.

The study concluded that there is a positive impact of government social transfers on human development index, but it is limited or weak. This is mainly due, in our view, to the method of identifying those eligible or targeted by government support in Algeria in general and social transfers in particular, as we find that the poor and the rich have benefited from the

Measuring the impact of social transfers On Human Development in Algeria during the period: 1993- 2022

size of social transfers, which necessitates reviewing the mechanisms of support and social transfers and accurately and better identifying the categories that are actually eligible, especially in light of digitization. This will contribute to achieving human development and reduce the size of social transfers.

Bibliography list :

- Al-Raqibi, K. A. (2024). Public spending on education and its impact on human development in Libya Econometric study. *Journal of Academic Research*, pp. 190-204.
- Economic, Social and Environmental Council. (2024, May). *Social and human development - the most important achievements and challenges*. Algeria.
- Gradin, H. (2020). Inequality, redistribution and social protection mechanism - an analytical and quantitative study of the case of Algeria - PhD thesis. Faculty of Economics, Business and Management Sciences, Tlemcen: Abu Bakr Belkaid University.
- Kouidri, K. (2015). An empirical study of the impact of social transfers on the phenomenon of poverty in Algeria. *Journal of Economics and Human Development*, 6(1), pp. 133-147.
- Ministry of Finance. (2015). , *Report on the Presentation of the Finance Law Project 2015*. Algeria.
- Ministry of Finance. (2021). *Report on the Presentation of the Finance Law Project four 2021and Forecasts 2022-2023*. Algeria.
- Ministry of Finance. (2023). *Report on the Presentation of the Corrective Finance Law Project four 2023*. Algeria.
- Ramadani , M. B. (2022). The Impact of Social Transfers on Inequality (GINI), Human Development Index (HDI) and Poverty – case of North Macedonia. *Trend in Economics, Finance, and Management Journal*, 4(2), pp. 56-64.
- Richardson , K. E. (2014). Analyzing the Effects of Sectoral Public Spending On Human Development in Nigeria: Evidence from Panel Data. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, 19(9), 1-13.
- UNDP . (2010). *Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development*. New York.
- UNDP. (1990). *Human Development Report 1990: Concept and Measurement of Human Development*. New York.