

## **Restructuring Government subsidies to Promote the Development of Investment in Human Capital and Inclusive Growth – with Reference to the Case of Algeria**

**ISHAK Khadidja<sup>1</sup>**

Lecturer A

University of Tamanghasset  
Khadidja\_ishak@hotmail.com

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### **Abstract :**

The aim of this research paper is to shed light on the role of restructuring the government subsidies in promoting the development of investment in human capital and attaining the inclusive growth accordingly, through demonstrating the economic and social effects of the generalized support policies. Besides, it was shown clear through the study that restructuring this type of support along with replacing the same with conditional cash transfers would reduce the inequities associated with generalized support on the one hand, and release important financial resources that can decisively be directed towards vital sectors, in respect such as education, health and social protection being necessary for upgrading human capital, the fact of which will definitely promote the inclusive growth.

**Keywords:** Restructuring, Government subsidies, Human capital, Inclusive growth.

**Jel Classification Codes:** H53, O15, I38

### **Introduction :**

All over the world, governments are facing increasing challenges in light of the mounting financial pressures, which have been exacerbated by global economic fluctuations, high levels of public debt and slowing down of growth in many countries. Incontrovertibly, these pressures have negatively affected the ability of governments to invest in human capital, which is a key pillar for attainment of inclusive and wide-ranging economic growth.

Apropos of, relocating financial recourses has shown to be of an urgent need to ensure sustainable economic growth and promote investment in human capital as the most important element of production, at that point of time when the revision of generalized government subsidies policies imposes itself as a priority, as it causes a significant drain on resources without attaining the desired goals.

In light of the facts set out above, we heighten the research problem hereunder:

**How does the restructuring of government subsidies contribute to the development of investment in human capital and attain inclusive growth?**

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<sup>1</sup> Corresponding Author

**Importance of the research:**

Definitely, the demonstration through this research of an integrated vision has shown to be of great importance for the restructuring of government subsidies systems, being a strategic input to promote investment in human capital. Besides, it comes at a critical stage when governments are facing growing imbalances in their financial situations, which increasingly limits their ability to allocate adequate resources for the development of human capabilities, although being the main engine of sustainable development and wide-ranging economic growth.

**Objectives of the research:**

The aim of this research is:

- Recognizing the concept of restructuring government subsidies and the most important mechanisms of restructuring government subsidies;
- Highlighting the importance of investing in human capital, together with its relationship to inclusive growth;
- Clarifying the contribution of the restructuring of government subsidies to the development of investment in human capital;
- Addressing Algeria's experience in reforming the government subsidies.

**Methodology of the study:**

In actual fact, we adopted though our study this descriptive approach while accurately addressing the concepts related to the restructuring of government subsidies and investment in human capital, along with the analytical approach when analyzing the statistics related to the cost of government subsidies in Algeria.

**Previous studies:**

- ✓ The study conducted by Mohamed RAMLI, Faïçal BOUTAYEBA and Azzeddine NEZAI (2022), entitled as: "Public Investment In Human Capital And Economic Growth In Algeria: An Empirical Study Using Ardl Approach", as the aim of this study was to analyze the relationship between public spending on human capital development and economic growth in Algeria during the period of 1990 ~ 2017. In this respect, the indicators of government spending in the education and health sectors have been adopted as measures of investment in human capital, with the intention of assessing their impact on economic growth. Hence, for attainment of the study goals, we used a self-regression model of distributed deceleration. Consequently, the results illustrated that there is no long-term equilibrium relationship between public spending on education and health and economic growth.
- ✓ The study conducted by Leila ZAGHOUBANI and Karim BOUDAKHDAKH (2021), entitled as: "Government Subsidies Reform As A Measure Of Fiscal Control", as the aim of this study was to bring to light the role of reforming the government support system adopted by Algeria within the scope of fiscal control efforts and reducing the structural deficit in the general budget. Further, it was illustrated through the results of this study that the government allocated, during the period of 2011 ~ 2014, the equivalent of a fifth of its budget for explicit support, along with high levels of implicit support, the fact of which contributed to some extent to the aggravation of the financial deficit. Consequently, the adoption of gradual and targeted reforms in the support policy would contribute to reducing

public expenditures and enhancing revenues, both in the short and long term, and enhancing the sustainability of public finances, accordingly.

✓ The study conducted by Mohamed BOUATLI and Nacer AZOUANI (2019), entitled as: “A Standard Study Of The Impact Of Human Capital On Economic Growth In The Maghreb Countries”, as the aim of this study was to analyze the impact of human capital on economic growth in the Maghreb countries during the period of 1980 ~ 1999. In this regards, researchers have found, through the use of cross-sectional time series data (Panel Data), a positive relationship between investment in human capital and economic growth, chiefly through supporting production and stimulating investments. Nonetheless, the weakness of this positive impact was explained through this study by the presence of structural challenges, including high unemployment rates, talent migration, weak educational programs and their unsuitability to the needs of the regional labour market.

## **1- The theoretical framework for restructuring the government support**

### **1.1. Definition of restructuring the government subsidies**

Actually, the concept of restructuring government subsidies refers to making the necessary changes to correct the fundamental imbalances in the support system with the purpose of reaching the best policies and scientific methods that unquestionably develop and update the mechanisms of the support system, so as to be more effective in achieving social justice and contribute to alleviating the financial burdens borne by countries in their budgets<sup>1</sup>.

### **1.2. Justifications for the move towards restructuring government subsidies**

**Economic-wise:** Energy subsidies lead to inefficiency in investment options and problems with competitiveness; above and beyond, they can alike impose restrictions on public resources, aggravate debt levels and encourage the resource-wasting activities from a social perspective, as the intensity of support for some products leads to the creation of incentives for smuggling to neighboring countries; similarly, support encourages overconsumption and wasting, and accelerate the depletion of resources<sup>2</sup>.

**Social-wise:** government subsidies distort social justice, as it derives benefits for the rich more than the poor. However, this is not surprising, given that the rich often drive more than others, which means that fuel subsidies have a downward character, to be precise, the richer a person gets, the more he will benefit from subsidies, as the same applies to electricity subsidies, which disproportionately benefit the rich people, those who more likely receive electricity supplies from the national electricity grid, and live in generously proportioned houses. Likewise, we shed light

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<sup>1</sup> Majed Aboul Naga El Sharkawy, “the impact of energy subsidy reform in Egypt from the perspective of economic efficiency and achieving social justice”, Journal of Damietta rights for legal and economic studies, 2022, p.608.

<sup>2</sup>Bassam Fattouh, Laura El-Katirim, “**Energy Subsidies in the Arab world**”, available online at: <https://www.cbd.int/financial/fiscalenviron/g-subsidyenergyarab-undp.pdf>;

on crowding out of growth-supporting public spending, as some countries spend more on energy and food subsidies than on public health and education<sup>1</sup>.

**Environmental-wise:** Subsidies cause harm to the environment, as low energy prices have led to a rapid increase in energy consumption locally, and the problem of pollution and local traffic jams has worsened. In addition, fuel subsidies can alike hinder renewable and clean energy technologies, in respect such as solar and wind energy, which find it difficult to compete with subsidized fuel<sup>2</sup>.

### **1.3.Mechanisms for restructuring government subsidies**

Indeed, the main goal of restructuring the government subsidies is directing the same to the category actually owed to it in society, and getting rid of the generalizing character that costs the public budget exorbitant amounts, explicitly, adopting a targeted government subsidies system instead of generalized subsidy; subsequently, governments are moving towards adopting a method of government cash subsidies, so-called cash transfers. Above and beyond, Social Cash Transfer is operationally defined as regular non-contributory cash payments, provided by governments or non-governmental organizations to individuals or families, with the aim of reducing chronic or trauma-induced poverty, addressing social risks and reducing economic fragility<sup>3</sup>.

In this respect, such transfers can either be unconditional or conditional<sup>4</sup>:

- **Conditional cash transfers:** They represent the regular cash flows being transferred directly to families provided that they fulfil responsibilities related to human development, in respect such as children's enrolment in schools, education, health, nutrition, and the like. Besides, these transfers can be comprehensive (general) or explicitly addressed to individuals identified as poor or vulnerable.

- **Unconditional cash transfers:** They represent those regular cash flows that are directly transferred to individuals and families "without actual conditions"; that is to say, no member of the beneficiary's family is expected to carry out any activity (such as work, attending school, and the like) in exchange for receiving transfers. Nevertheless, calling transfers "unconditional" does not exclude administrative requirements, in respect such as proof of identity or eligibility for the program, and does not preclude the use of targeting mechanisms, in respect such as age or income level.

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<sup>1</sup> Messaoud Ahmed, "**Price support – we liked support or we hated it, the accuracy of the guidance is the best**", the International Monetary Fund, <https://www.imf.org/external/arabic/np/vc/2011/051011a.pdf>;

<sup>2</sup> Bassam Fattouh, Laura El-Katirim, Op. Cit.;

<sup>3</sup> Michael Samson, "Ingrid van Niekerk, Kenneth Mac Quene ; "**Designing and Implementing Social Transfer Programmes**", available online at: <https://2u.pw/6WMSr>;

<sup>4</sup> Ibid;

#### **1.4. Challenges facing the restructuring of government subsidies**

Actually, moving towards reforming support is not easy, as being hindered by obstacles that extend to the social, economic and political levels, in respect such as:

##### **Social repercussions:**

- The family budget shall be affected, mainly the vulnerable classes, due to high prices;
- The distribution of wealth shall be affected and inequality shall be worsened among social groups, particularly in oil-producing countries, whereat the energy products' subsidy is considered as a mechanism for redistributing oil wealth to the population.

##### **Economic repercussions:**

- The inflation rates shall increase due to high consumption prices and production costs;
- The State revenues shall be reduced due to the decline in the tax revenue on energy;
- The investment in the field of energy industries shall decrease and decline in their competitiveness;
- The demand for labor in the energy sector shall decline.

##### **Political repercussions:**

- The beneficiaries of government subsidies shall violently react to the lifting measures, which can reach popular protests and strikes. Besides, the lack of popular support is due in part to a lack of confidence in the ability of governments to redistribute the budget savings resulting from the reform to serve a larger population; which also reflects fears that the necessary protection is not provided to vulnerable groups.

#### **2- Conceptual introduction to investing in human capital:**

##### **2.1. Definition of human capital**

Truthfully, human capital is defined as “the balance of economically productive human capabilities”, as human capital can be increased through spending on education, on-the-job training and investments in health and nutrition<sup>1</sup>.

Besides, the Organization for Economic Cooperation and Development (OECD) also defines human capital as knowledge, qualifications, competencies and all other features that a person possesses or acquires, which would provide him with social, economic and personal benefits, and ensures his individual, social and economic well-being<sup>2</sup>.

More to the point, human capital represents the sum of knowledge, skills and health that individuals acquire throughout their lives, thus enabling them to effectively

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<sup>1</sup> The World Bank, “**Where the wealth of nations lies?**”, Emirates Centre for Strategic Studies and Research, available online at: <https://2u.pw/VJZPS>;

<sup>2</sup> Centre for Educational Research and Innovation, “**Human Capital Investment**”, Available online at: <https://2u.pw/f24ql>;

contribute to society as productive people. Further, the development of this human capital has shown to be an essential step to eradicate extreme poverty and build more just and all-encompassing societies. Hence, this can be achieved by investing in the human being through providing proper nutrition, effective health care, high-quality education, suitable job opportunities and developing the skills necessary to meet the challenges of the future.

Unambiguously, investment in human capital is defined as “spending on a person in order to upgrade his productive skills and knowledge, and subsequently increase his income that can be obtained in the future”<sup>1</sup>. As a consequence, investing in people means that the State endeavours to provide a healthy environment for the child born today, so that he receives quality education and benefits from full health care, thus allowing him to acquire knowledge and skills that will make him a productive individual in the future.

## **2.2. Characteristics of human capital**

Certainly, human capital is distinguished from others by many characteristics and features, the most important of which are listed hereunder <sup>2</sup>:

- Human capital is characterized by two basic dimensions, namely: Balance, i.e., the value of human capital calculated or estimated at the end of the year or at a certain time, and the flow, to be precise, the new value of human capital generated in its course in the work of its individuals;
- Human capital increases with use and tends to self-generate, as knowledge stands, when used, to a source of better, broader, deeper and more efficient knowledge, the fact of which means that time can work for the benefit of human capital in the accumulation of knowledge, experience and education;
- The life cycle of human capital, regardless of the useful life of the knowledge holder, is longer than the life cycle of the product, process or technology (machinery and equipment), as this can be explained by the fact that the knowledge and experience that make up human capital are transmitted between the organization members, thus providing better opportunities for the replenishment of this knowledge, which cannot be achieved with other resources;
- The real importance of human capital lies not in the inputs therefrom, but in the attained outputs and results.

## **2.3. The economic and social importance of investing in human capital**

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<sup>1</sup> Hamdy El-Henawy, “**Human capital, theoretical rooting and application to Egypt**”, Alexandria Training Centre, 2006, p.7;

<sup>2</sup> BOUATLI Mohamed, AZOUANI Nacer, “**A standard study of the impact of human capital on economic growth in the Maghreb countries**”, available at the link: <https://asjp.cerist.dz/en/article/93944>

If truth be told, human resources are one of the basic measures through which we measure the wealth of Nations, considering that these resources are on top of the capital components and assets affecting the economic and social situation of countries, whereat the human element and the degree of its efficiency have become the decisive factor for the progress achievement.

- **From an economic point of view:** Economic growth and development depend on both material and human capital, as they complement each other. Besides, the workforce needs physical capital to be productive, whilst a healthy and educated workforce leads, in turn, to increased investment in the physical capital of the economy.

Scientists have long given emphasis to the importance of the development of the human resource in achieving economic growth, as Adam Smith stated in his famous book “THE WEALTH OF NATIONS” that all the acquired and useful abilities of other members of society are considered a fundamental pillar in the concept of fixed capital.

Similarly, Marshall highlighted the importance of investing in human capital as a national investment, as the highest value investment is, according to him, the capital being invested in a person.

- **From the social point of view:** Paying attention to investing in human capital will build healthy, educated and acquired individuals with skills and abilities enabling them to effectively and efficiently exploit physical capital and natural resources. Besides, the social benefits of investing in human capital extend far and wide, seeing that spending more years in school and in programs that improve non-cognitive skills reduces the likelihood of a person committing a crime<sup>1</sup>. In addition, investing in human capital enhances social participation and increases a person’s trust in others<sup>2</sup>.

#### **2.4.The relationship of investment in human capital with inclusive growth**

Actually, there exist a number of key elements that are necessary to attain inclusive growth, among of which those key elements listed hereunder: <sup>3</sup>

- Investing in human capital;
- Job creation;

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<sup>1</sup> Jim Yong Kim, “the human capital gap: encouraging governments to invest in people”, available online at <https://www.albankaldawli.org/ar/news/opinion/2018/06/18/human-capital-gap>

<sup>2</sup> Op. Cit.

<sup>3</sup> The World Bank, “Where the wealth of nations lies?”, Emirates Centre for Strategic Studies and Research, available online at: <https://2u.pw/VJZPS>

- Structural transformation and growth;
- Progressive tax policies;
- Social protection;
- Non-discrimination, social inclusion and participation;
- Strong institutions.

Beyond doubt, there exists a consensus in the economic literature on the importance of investing in human capital as a fundamental pillar of inclusive growth; thus, work has shown to be the main asset possessed by the poor people. Consequently, improving the level of education and health care enables these poor people to participate in attaining economic growth and benefit from its fruits<sup>1</sup>.

### **3- The relationship of restructuring government subsidies to the development of investment in human capital**

Emphatically, human capital does not come to pass on its own, but the State must take care thereof, partly because individuals often fail to realize the benefits that can be brought through investing in people<sup>2</sup>. Above and beyond, the promotion of investment in human capital requires the mobilization of important financial resources that force countries to reorder their spending priorities, and the development of effective public policies that ensure access to basic services, in respect such as education, health care and nutrition, to all segments of society, particularly vulnerable groups. Nonetheless, it is difficult to attain sustainable development and inclusive growth without this institutional commitment.

Unquestionably, the restructuring of generalized government subsidies and the replacement thereof with Conditional Cash Transfer programs stands for a strategic direction to promote investment in human capital. Apropos of, these programs, which require beneficiaries to commit to vaccinating children, pursuing education or conducting periodic medical examinations, contribute to improving the health and education of vulnerable groups, thereby raising the quality of the human capital in the long run. Nonetheless, through directing financial resources towards this type of smart interventions, the State shall be able to build a more productive human potential and more ready to contribute to economic growth and sustainable development. In this regards, the Philippines has demonstrated the Pantawid Pamilyang Pilipino (4Ps) program as a successful model, which is one of the human development measures of the Philippine national government that provides

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<sup>1</sup> Chaima HANAFLI, “**Inclusive growth**”, National Social magazine, available online at: [https://jns.journals.ekb.eg/article\\_205046.html](https://jns.journals.ekb.eg/article_205046.html)

<sup>2</sup> Jim Yong Kim, “**the human capital gap: encouraging governments to invest in people**”, Op. Cit.;

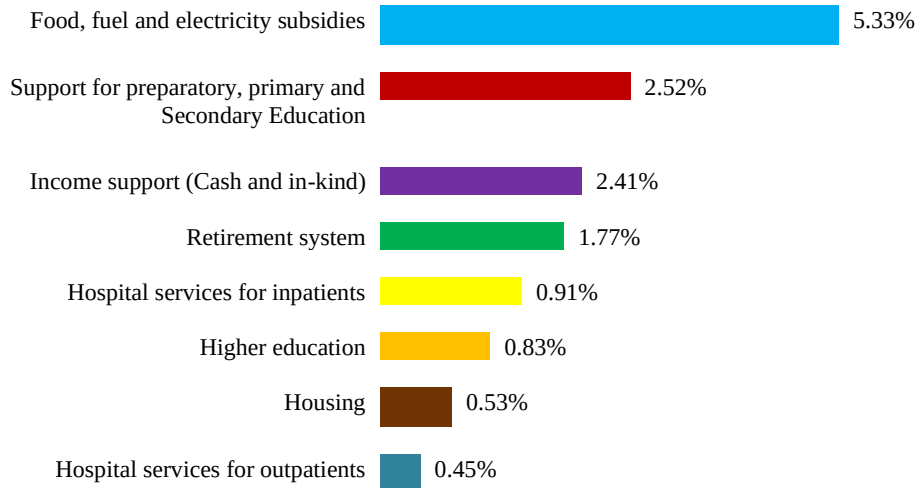
conditional cash transfers to the poorest citizens in exchange for their commitment to improve health, nutrition and education for children aged 0 to 18 years<sup>1</sup>. Likewise, Iran has been a successful model in converting the system of commodity subsidies into monetary subsidies, in order to control consumption, whereat it allocated 80% of the revenues achieved by the State from raising prices to be redistributed in the form of cash subsidies to citizens, and 20% to the industrial and agricultural sectors (upon amendment of the ratios by the parliament, which shall be 50% to citizens, 30% to productive sectors affected by the reform of the value of energy carriers and 20% to the budget).

More to the point, the generalized government subsidies carries a high cost in terms of the loss of alternative opportunities to invest in human capital, seeing that allocating funds to government subsidies means crowding out high-value investments in specific areas, such as healthcare and education that are necessary to upgrade human capital. Subsequently, the restructuring of government subsidies will lead to the release of huge financial resources, which can be mobilized and directed to improve the quality of educational services, develop the health system and ensure their delivery to vulnerable groups, and will contribute to attaining inclusive growth. Alternatively, the data shown in the figure below illustrates that the Arab countries support a variety of programs, but their main focus is on supporting food and energy products, whereat the percentage of this support exceeded 05% of the Gross Domestic Product. More and more, this trend is due to the fact that such type of support is considered an essential tool for social protection, due to its ease of implementation from an administrative point of view compared to other programs that require accuracy in targeting and customization. In oil countries, it alike stands for an effective way to distribute the proceeds of Rentier Wealth. Nevertheless, this high level of spending has exacerbated financial imbalances and has led to crowding out spending on vital sectors related to development, primarily the health and education sectors, which are the main pillars of investment in human capital.

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<sup>1</sup> FAQs about the Pantawid Pamilyang Pilipino Program (4Ps), available at the link: <https://www.worldbank.org/en/country/philippines/brief/faqs-about-the-pantawid-pamilyang-pilipino-program>;

**Figure 1: Cost of government subsidies in Arab countries 2019**



Percentages represent a ratio of the Gross Domestic Product \*

**Source:** Prepared by the researcher based on the data of the Economic and Social Commission for Western Asia ESCWA, UNICEF, the Observatory of Social Spending of the Arab States, browsed on 20th November 2023:  
<https://www.unicef.org/mena/ar>

#### **4- Algeria's experience in reforming government subsidies**

Indeed, the social support concept has been associated with the project of a social State and the slogan of social justice, the fact of which was embodied in the founding documents of the State. In this respect, from the Declaration of the first of November, as it formed the founding document of the independent and modern Algerian State under the title of: "Building a social democratic State", then the Constitution of 1976 and particularly Article thereof, which dealt with the socialist system and the economic and social system on which the State is based. In practice, this link has been reflected in the support of large sectors related to social services, in respect such as health, housing, social protection, social transfers and energy subsidies.

##### **4.1. The structure of the State subsidy system in Algeria**

The government subsidies policy in Algeria takes two main forms: Explicit subsidy and Implicit subsidy<sup>1</sup>:

<sup>1</sup> HANSAL Aboubakar, BENAHMED Saadia, "The strategy of government support applied in Algeria from the perspective of economic efficiency and achieving social justice", Journal of in-depth economic studies No.08/2018, p.115;

**Explicit support:** It is alike called social transfers, which stand for public expenditures that are registered and appear explicitly in the general budget and fall under the item of expenses borne by the State.

**Implicit subsidy:** Implicit subsidy stands for the waiver of a part of the State revenues due with the purpose of reducing the financial cost of some goods and services related to subsidies to less than the cost of distribution and supply.

**Figure 2. Forms of government subsidies in Algeria**

| Explicit subsidy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Implicit subsidy                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. Social transfers;</li> <li>2. Housing subsidies;</li> <li>3. Family subsidies consists of:</li> <li>4. Family scholarships;</li> <li>5. Education subsidies;</li> <li>6. Price subsidies (cereals, oil, milk..);</li> <li>7. subsidy access to electricity, gas and water;</li> <li>8. Pension subsidies;</li> <li>9. Health subsidies;</li> <li>10. Subsidies of Moujahideen;</li> <li>11. Subsidies for the needy, disabled and people with low incomes</li> </ol> | <p>Subsidies of a tax Nature (tax and customs exemptions)</p>                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>Implicit subsidy associated with the real estate</p>                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>Subsidies dedicated for financial interventions for the public treasury</p> |
| <p>Subsidies aimed at lowering interest rates</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p>Subsidies related to energy products</p>                                    |
| <p><b>Subsidies:</b></p> <ol style="list-style-type: none"> <li>1. Allocated to public transport companies;</li> <li>2. Allocated to the Algerian water company.</li> </ol>                                                                                                                                                                                                                                                                                                                                    | <p>Balance subsidies of the Company SONELGAZ</p>                               |

Journal of in-depth economic studies No.08/2018, p.115.

#### 4.2. Implications of government subsidies for the Algerian economy

**Increasing financial pressure on the state Budget:** The government subsidies policy in Algeria represents a significant burden on the public budget, as the total support in 2020 exceeded about 100% of the public budget deficit due to the lack of targeted guidance for support, the fact of which is not limited to needy groups but includes everyone, which doubles its cost with the rise in prices of subsidized materials worldwide.

● For social transfers:

**Table 1: Evolution of the cost of government subsidies (social transfers)  
in Algeria for the period of 2010 ~ 2020**

Billion DZD

| Years                                | 2010     | 2011     | 2012     | 2013     | 2014     | 2015     | 2016     | 2017     | 2018     | 2019     | 2020     |
|--------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total social transfers               | 1,239.26 | 2,065.07 | 1,868.50 | 1,574.36 | 1,609.12 | 1,830.31 | 1,841.57 | 1,624.92 | 1,763.82 | 1,820.77 | 1,847.52 |
| Social transfers / overhead expenses | 26.6     | 34.8     | 26.4     | 26.1     | 23       | 23.9     | 25.2     | 22.3     | 22.8     | 22.2     | 22.9     |
| Social transfers / budget deficit    | 77.4     | 84.0     | 57.4     | 73.9     | 52.4     | 58.9     | 80.5     | 131.6    | 131      | 126.6    | 117.2    |

**Source:** Prepared by the researcher based on the reports of the finance draft laws on the website hereunder: <https://dgpp.mf.gov.dz/rapports-de-presentation-des-lois-de-finances/>

In the light of the table above, we note the commitment of Algeria that the cost of social transfers peaked in 2011, equivalent to 34.8% of public expenditures, which increase is due to the expansion in the adoption of subsidies for basic materials such as sugar and oil, in pursuance with the Executive Decree No.11-108 dated 06<sup>th</sup> March 2011 (Ministry of Commerce, 2011), as this was in response to the wave of demonstrations that the country witnessed at the beginning of 2011 in protest against the rise in prices of basic materials, whereat the Consumer Price Index reached 150%, as this fact led to pressure on the budget deficit which in the same year reached 84%.

Starting from 2013, social transfers and public expenditures witnessed a decrease in their value, the fact of which led to a decrease in the general budget deficit by 1125 billion dinars, i.e. by 35% compared to 2012. Notwithstanding, social transfers maintained their share of total public expenditures at 26%, the same as it was in 2012.

With the beginning of 2014, social transfer allocations began to significantly increase until 2016. In light of the continuous decline in the balance of the revenue Control Fund due to the decline in oil prices since 2014, the fund no longer has any financial balances by 2017. Conversely, the State continued to allocate a fixed part of public expenditures for social transfers, ranging from 22% to 25%. Nevertheless, this gradually led to a worsening of the general budget deficit, as the contribution of

social transfers to this deficit reached 52% in 2014, and then increased to 80% in 2016, thus bringing the deficit to 2285.9 billion dinars.

In an attempt to reduce this deficit, the State sought to rationalize social spending in 2017, the act of which led to a decrease in subsidy allocations to 1,624 billion dinars, or by 12% compared to 2016. Despite this decrease, social transfers remained a significant burden on the budget, contributing to the deficit by 130%, although the total deficit fell to 1,234.7 billion dinars, standing for the lowest level during the study period.

However, the State soon returned to increasing social support allocations, as their value in 2019 increased by 12% compared to 2017. During the period of 2017 ~ 2020, social transfers maintained their share of total public expenditures at approximately 22%, but continued to cause the budget deficit at an average of more or less 120%.

As a consequence, the State resorted to a policy of inflationary financing to fill the deficit, as the minister of Finance announced the printing of 2,185 billion dinars in 2017, and 1,555 billion dinars since the beginning of 2018 until the 15<sup>th</sup> of November 2018, within the framework of unconventional financing; nonetheless, this measure has led to an increase in the inflation rate, reaching 215.21% according to the Consumer Price Index in Algeria in 2020 (Base Year = 2000).

Additionally, the high percentage of social transfers compared to the budget deficit after 2016 indicates a worsening of the fiscal deficit or a continuation of the level of social transfers despite financial pressures.

- **For the cost of implicit subsidy:**

In fact, data on the cost of implicit subsidy are not available, since they are only explicitly presented in the general budget only in some years.

**Table 2: Evolution of the cost of implicit government subsidy in Algeria for the period of 2012 ~ 2015**

Billion DZD

| Designation                                                |                                                                   | 2012    | 2013     | 2014    | 2015     |
|------------------------------------------------------------|-------------------------------------------------------------------|---------|----------|---------|----------|
| Tax exemptions                                             |                                                                   | 942.6   | 1081     | 957     | 867.484  |
| Real estate-related support                                |                                                                   | 65.8    | 66.85    | 56.3    | /        |
| Public Treasury interventions                              |                                                                   | /       | /        | 10      | /        |
| Implicit support for energy prices                         | Implicit subsidy for fuel prices                                  | 777.5   | 818.20   | 630     |          |
|                                                            | Implicit subsidy of gas prices directed to electricity production | 622     | 684.20   | 315     |          |
|                                                            | Implicit subsidy for gas prices directed to final consumption     | 525.5   | 578.05   | 441     |          |
|                                                            | Total                                                             | 1923    | 2,080.45 | 1386    | 1300     |
| Balance subsidy of the Company SONELGAZ                    |                                                                   | 0       | 0        | 157.3   | 0        |
| Total                                                      |                                                                   | 2,931.4 | 3,228.3  | 2,560.6 | 2,167.48 |
| The volume of implicit support from Gross Domestic Product |                                                                   | 18.1    | 19.4     | 14.9    | 12.83    |

**Source:** HANSAL Aboubakar, BENAHMED Saadia, the strategy of government support applied in Algeria from the perspective of economic efficiency and achieving social justice, Journal of in-depth economic studies No.08/2018, p.122.

In the light of the table above, we can make out that the subsidy of energy materials represents the largest percentage of the total implicit support, reaching about 65% during the period of 2012 ~ 2013, and decreased to 55% and 60% in 2014 and 2015, respectively. However, this is due to the large difference between local energy prices and international prices, in addition to benefiting all segments of society from fuel, electricity and gas, since the support system does not target the most needy groups, but includes everyone.

More to the point, the Algerian Minister of Energy pointed out that the domestic gas price is about ten times lower than the international price thanks to government support, and that electricity prices are ten times lower compared to other countries, whilst fuel prices are amongst the lowest worldwide. Conversely, this has led to financial imbalances of SONELGAS, which is responsible for the production and distribution of electricity and gas, hence necessitating its support in the amount of 154.3 billion dollars in 2014 with the intention of compensating for the deficit.

As for the support related to tax exemptions, it ranged between 32% and 40% of the total implicit support, as this percentage recorded a continuous increase between 2012 and 2014, as part of the State's efforts to encourage investment and diversify the economy away from dependence on oil revenues.

- **Government subsidies in Algeria is characterized by a holistic nature and supports the rich and middle-income more than the poor:** Although the support is aimed at helping vulnerable groups, its application in Algeria shows greater benefit for the rich and middle-income. Besides, the data demonstrate that the richest 20% of households consume 06 times more than the poorest 20% of subsidized fuel; likewise, they consume 61% of subsidized electricity, 58% of water and 18% of subsidized food<sup>1</sup>.

- **Excessive consumption of subsidized materials:** The expanded subsidy for food and energy materials has led to an increase in their consumption to the point of diseconomy and waste.

- **Crowding out spending on the health, education and social protection sectors:** widespread energy subsidies have diverted public financial resources away from spending in areas that achieve human capital development. Further, energy subsidy allocations exceeded the combined education and health budgets for 2014 and 2015.

- **Environmental pollution:** The cheap prices of energy materials and some other materials increase their consumption and result in traffic jams, high emissions and environmental pollution in cities, and also reduce energy efficiency by switching to renewable energies.

- **Increase in the phenomenon of smuggling to neighboring countries:** As a result of intensive support, the large price difference between Algeria and neighboring countries led to the expansion of the phenomenon of smuggling, particularly for fuel. However, it was estimated that approximately 1.5 billion litres of gasoline and diesel were smuggled in 2012, accounting for a quarter of domestic production<sup>2</sup>.

- **Government subsidies affected the efficiency in choosing investments in Algeria:** Comprehensive support, mainly in the energy sector, has affected the efficiency of resource allocation, as huge amounts are directed towards financing consumption instead of investing in productive and promising sectors. However, this trend limits the opportunities to finance sustainable development projects, weakens investments in infrastructure, renewable energies, and labour-intensive industries, the fact of which hinders the attainment of comprehensive economic growth

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<sup>1</sup> BENGUIDA Marouane, BOUZEKRI Djillali, "Reforming government support in Algeria between the requirements of economic efficiency and the requirements of social status", available online at: <https://asjp.cerist.dz/en/article/158277>;

<sup>2</sup> Leila ZAGHOUBANI, Karim BOUDAKHDAKH, "Government support reform as a measure of fiscal control", Journal of Contemporary Economic Research, Vol.04, Issue No.02 (2021), p.384;

#### **4.3. Algeria's path to reforming the State subsidy system**

Indubitably, Algeria has taken the first step to reform the subsidy system all the way through raising energy prices at the beginning of 2016. In this respect, the Algerian government has moved to gradually lift subsidies on energy products as follows:

- Raising the price of diesel from 13.7 dinars per litre to about 18.76 dinars per litre, premium gasoline from 23 dinars to 31.42 dinars per litre, and unleaded gasoline from 22.6 dinars per litre to 31.02 dinars per litre, under the measures taken in the framework of the 2016 budget, which has alike led to<sup>1</sup>:

Adjustment of the Tax on Petroleum Products (TPP), which increased from 0.01 dinars per litre to 5 dinars per litre for premium gasoline, to 4 dinars per litre for regular gasoline and 2 dinars per litre for diesel;

- Adjustment of the Value Added Tax on diesel to the value added on diesel, seeing that electricity consumption exceeding 250 kWh / season, and gas consumption exceeding 2500 BTU / season from 7% to 17%.

In light of which, these measures have led to:

- Increase in gasoline and diesel fuel prices by about 34-38%;
- Increase the electricity tariff by 15-31% for the consumer and business sectors whose consumption exceeds 250 kW/season;
- Increase prices by 15-42% for the consumer and business sectors whose consumption exceeds 2500 BTU/season.

Actually, the duties imposed on petroleum products were subject amendments at the beginning of 2018, as the pricing of gasoline was increased by 5 dinars per litre, and 2 dinars for diesel. Accordingly, the prices of premium gasoline and unleaded gasoline increased by 14 dinars per litre, ordinary gasoline by 13 dinars, whilst the price of diesel increased by no more than 4 dinars. Notwithstanding these increases, prices remained among the lowest in the world, the fact of which made the corrective effect limited in the face of excessive consumption and fiscal deficits.

Nonetheless, the supplementary finance law came up in 2020 with a decision to increase the duty on petroleum products by 3 dinars per litre on the three categories of gasoline, 5 dinars per litre for oil gas; on the other hand, the State established a fee in 2021 on fuel consumption for cars and trucks at each exit from the country's borders abroad.

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<sup>1</sup> BENGUIDA Marouane, BOUZEKRI Djillali, Op. Cit.

### Conclusion:

In the light of the review of the previous topics pertaining to the restructuring of government subsidies and the relationship thereof with investment in human capital, it has become clear that the transfer of subsidy from non-targeted mechanisms to conditional cash subsidy programs indisputably targets the most needy categories, and contributes to improving education, health and nutrition among these groups, which enhances investment in human capital and inclusive growth.

In Algeria, the challenge is highlighted by the constant pressure on the public budget due to undirected support, the fact which hinders investments in vital sectors, in respect such as education and health. Consequently, the tendency towards structuring government support along with the direction thereof, more accurately and efficiently, can contribute to reducing the financial burden on the State, ensure access to basic services to vulnerable groups, and thereby contributing to achieving sustainable and comprehensive economic growth.

### Recommendations:

- Endeavour to gradually restructuring government subsidies in order that the total increase does not cause inflationary effects;
- Ensure the availability of favourable economic conditions, in particular relatively high economic growth rates;
- Raise awareness among citizens through showing the ineffectiveness of the support system and that the best alternative is investing in human capital.

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