

## The Need to Reform the Algerian Pension System to Cope With Future Demographic Changes

ضرورة إصلاح نظام التقاعد الجزائري لمواكبة التغيرات الديموغرافية المستقبلية

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### Abstract:

The research aims to highlight the importance of reforming the Algerian retirement system in light of future demographic changes. the national pension fund has been suffering from a deficit since 2013 that threatens its sustainability and each time a state intervention is required to finance the deficit. at the same time, Algeria will witness demographic changes as the number of elderly people increases and the number of young people decreases, putting more pressure on the pension system.

The research has reached the need to accelerate the radical reforms of the pension system, especially in the light of the international experience in it and with the support of the world bank, which put forward a model based on the principle of capitalization and distribution according to three pillars. it is also important to find mechanisms to promote social security and stimulate investment to increase employment, being an important financial resource to restore the financial balance of the fund.

**Keywords:** Pension reform; Demographic changes; Social Security; Pension fund.

**JEL Classification Codes :** J26, J11, H55

ملخص:

يهدف البحث إلى إبراز أهمية إصلاح نظام التقاعد الجزائري في ظل التغيرات الديموغرافية المستقبلية، فالصندوق الوطني للتقاعد يعاني من عجز منذ 2013 يهدد ديمومته واستدعى في كل مرة تدخل الدولة لتمويل العجز، وبالموازاة مع ذلك ستشهد الجزائر تغيرات ديموغرافية بارتفاع أعداد المسنين وانخفاض أعداد الشباب وهو ما يلقي المزيد من الضغط على نظام التقاعد.

ولقد توصل البحث إلى ضرورة التعجيل بالإصلاحات الجذرية لمنظومة التقاعد، خاصة في ظل التجارب الدولية السابقة في ذلك و بدعم من البنك الدولي، الذي طرح نموذجاً يعتمد على مبدأ الرسملة والتوزيع وفق دعائم ثلاث، ومن المهم أيضاً إيجاد آليات تعمل على تشجيع الانتساب للضمان الاجتماعي وتحفيز الاستثمار لزيادة العمالة كونه يعتبر مورد مالي مهم لاستعادة التوازن المالي للصندوق.

كلمات مفتاحية: إصلاح نظام التقاعد؛ التغيرات الديموغرافية؛ الضمان الاجتماعي؛ صندوق التقاعد.

تصنيفات JEL : H55, J11, J26

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## **INTRODUCTION:**

Retirement is an element of the social protection system, which is financed through capitalization or distribution, and financing according to the principle of capitalization is through the collection of contributions and their employment in the financial market, and the friendliness of the system is linked to how the money is invested, which is exposed to market risk, as happened to pension savings funds in Canada after the 2008 global crisis.

The retirement system in Algeria is based on the principle of distribution by collecting the premiums of the contributions of current employees and distributing them in real time to pay the grants and pensions of retirees, i.e. a solidarity system distributed over generations, and the financial balance of this system is linked to the relationship between the number of contributors and the number of retirees, and at the end of the eighties the distribution retirement systems showed signs of weakness that touched their financial balances, due to economic and demographic factors.

Ageing is the main element in the demographic transformations faced by most countries of the world, including Algeria, where the number of young people will decrease and the number of elderly will rise from 3.2 million in 2018 to more than 10 million in 2040, and by 34.1% in 2100, which mainly affects the rise in expenditures that exceed revenues.

Hence, the main question of the subject comes to mind, which is whether the pension system in Algeria is able to meet its future financial obligations in light of demographic changes. **Is reforming the pension system in Algeria an inevitable necessity in light of the deficit suffered by the National Pension Fund since 2013?**

**To answer the main question of the research, we rely on the following hypothesis:**

As the pension system in Algeria is based on the principle of distribution, that is, the financial balance of this system is linked to the relationship between the number of contributors and the number of retirees, and with the deficit suffered by the National Pension Fund, and in light of the future demographic changes that are moving towards population aging, the National Pension Fund will be unable to meet its future financial obligations, if this is not remedied by radical reforms of the pension system in Algeria.

**The research seeks to achieve a number of objectives, which are:**

- Familiarize yourself with the Algerian pension system;
- Identify the sources of financing of the pension system in Algeria;
- Diagnosis of the causes of the deficit of the National Pension Fund;
- To determine the ability of the National Pension Fund to meet its financial obligations in light of the future demographic changes in Algeria;
- Presenting the reforms adopted to rebalance the financial balance of the National Pension Fund and learn about the World Bank's model for reforming pension systems in the world.

## **Importance of research**

The importance of the research lies in the situation that the National Pension Fund is going through from a deficit in its balance that threatens its sustainability, which requires accelerating the reform of the pension system in light of the future demographic changes that are moving towards population aging, which will put more pressure on the retirement system, with a

presentation of the reform model of the World Bank applied in many countries, and this would provide data of interest to researchers and decision-makers.

### **1- the retirement system in Algeria**

The retirement system in Algeria has a special system, which we address in the following points:

#### **1-1 pension and grant system**

The current National Retirement System was established by Law No. 83-12 of July 2, 1983, with the aim of establishing a single retirement system based on the unification of the rules relating to rights, the assessment of privileges and the unification of financing.

##### **1-1-1 Pension and direct retirement grant**

It is granted on the basis of the worker's own activity, to which the sponsored spouse is added.

###### **▪ Direct pension**

It is that pension received by the pensioner in the presence of the following conditions:

###### **✓ Retirement age**

In accordance with article 5 of Act No. 83-12 on retirement, the worker's retirement pension must be subject to the following two conditions:

- Reaching at least sixty years of work for men and fifty-five years for women, and the worker can continue his activity after this age within the limits of five years, during which the employing body cannot refer him to retirement, and the retirement age can be extended for highly qualified jobs, and rarely qualified professions, determined by regulation (Law 16-15, 2016, p4).
- Attainment of at least sixty-five years for non-wage earners for men and sixty years for women (Decree No. 85-35 ,1985, p216).

However, there are other procedures that allow access before this age concern:

- Workers who work in positions characterized by very difficult conditions and benefit from a pension before reaching retirement age after serving a minimum period in this position, the list of positions, the appropriate ages and the minimum period to be spent in these positions is determined by regulation (Law 16-15, 2016, p4).
- Working women may be retired at their request from the age of fifty-five (Law 16-15 of December 31, 2016, p3), and workers who have raised one or several children for at least nine years benefit from an age reduction of one year for each child within three years (Law 83-12, 1983, p1804).
- A worker with total and final disability is not required to meet the retirement age requirement, in which case the number of annual premiums adopted for the calculation of the pension cannot be less than fifteen years (Ordinance No. 96-18, 1996, p15).
- The age required to benefit from the right to retirement pension shall be reduced by five years for the mujahid (Law No. 83-12, 1983, p1805), and at their request it is possible to benefit from

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retirement without the age requirement and the retirement rate granted is one hundred percent (Ordinance No. 96-18, 1996, p15).

Since 1997, facilities have been introduced with regard to the retirement age, so that the retirement pension can be granted at the request of the worker only before the stipulated age in accordance with the following modalities (Ordinance No. 97-13,1997, p4):

- without the age requirement, if the wage earner has completed an actual period of employment resulting in the payment of contributions equivalent to at least 32 years;

- An employed worker starting from the age of fifty and who has performed an actual period of work resulting in the payment of contributions equivalent to at least twenty (20) years, may request to benefit from a proportional retirement pension. The age and duration of employment provided for in the above paragraph shall be reduced by five years for working women.

### ✓ **Period of employment**

Have spent at least 15 years working, and to benefit from the retirement pension, he must have worked in actual employment equal to seven and a half years with payment of social security contributions (Law 16-15, 2016, p3).

### ✓ **Accreditation ratio**

The amount of the pension for each year is set at 2.5% of the monthly wage subject to social security contributions (Ordinance No. 96-18, 1996, p14), and the years of actual participation in the war of national liberation are calculated at twice their duration, and at 3.5% for each annual benefit (Law 83-12, 1983, p1805).

### ✓ **Pension amount**

The wage adopted for the calculation of the pension is either the average monthly wage received in the last five years preceding retirement, or the average monthly wage, estimated on the basis of the five years in which the person concerned received the maximum wage during his or her career, if this is more beneficial to him (Law 99-03, 1999, p4).

The basis for calculating the retirement pension for non-wage earners consists of the calculated rate of the contribution bases for the best ten (10) years.

### ✓ **Minimum and maximum retirement pension**

The annual amount of the retirement pension shall not be less than 75% of the annual amount of the national minimum wage (Law 99-3, 1999, p5), and not more than 80% of the wage subject to social security contribution (Law 99-03, 1999, p5).

For the benefit of the mujahideen, it does not exceed 100% of the monthly wage subject to social security (Ordinance 96-18, 1996, p15), and the annual amount shall not be less than two and a half times (2.5) of the amount of the guaranteed national minimum wage (Order96-18, 1996, p15).

Notwithstanding all the provisions, the maximum amount may not exceed fifteen (15) times the value of the guaranteed national minimum wage (Law 99-03, 1999, p5).

### ▪ **Retirement grant**

A retirement grant was established for workers aged 60 years, who do not meet the term of employment requirement and can prove five (5) years or twenty (20) years in triple (Law 99-03, 1999, p6), and for details on how to adopt insurance years, refer to article 3 of Ordinance No. 97-13 of May 31, 1997, and article 13 of Executive Decree No. 15-289 on social security for non-wage earners.

### **1-1-2 Movable pension and retirement grant**

Includes a pension for the surviving spouse, a pension for orphans, and pensions for assets.

#### **▪ Pension beneficiaries**

Following the death of the pensioner or worker, each of his rights shall benefit from a movable pension.

According to Law No. 83-11 on Social Insurance, as amended by Law No. 11-08 of June 5, 2011, the insured's spouse, sponsored children under 18 years of age, children under 21 years of age who continue their studies, females regardless of their age, etc...

#### **▪ Pension divisions**

According to article 34 of Act No. 83-12 on retirement, the amount of pensions of persons entitled to pension is determined as follows:

- When there is no child or ascendant, the amount of the transferred pension of the surviving spouse is fixed at 75 per cent of the amount of the spouse's deceased pension;
- When there is a right besides the husband (a child or an ascendant), the amount of the pension transferred to the husband is fixed at 50% of the direct pension and at 30% the pension transferred to the rights holders;
- When there are two or more rights holders (children, ascendants or both) besides the spouse, the amount of the husband's direct pension is set at 50 per cent and the remaining 40 per cent of the amount of this pension is shared equally by the other beneficiaries;
- When there is no spouse, the beneficiaries of the rights share a pension equal to 90% of the pension of the deceased, within a maximum limit of the following for each entitled person:
  - 45% of the pension if the beneficiaries are perishable;
  - 30% of the pension if the right holder is one of its assets.

### **1-2 pension recalibration**

The value of pensions and their grant shall be increased starting from or for each year, by a decision of the Minister in charge of Social Security on the proposal of the Board of Directors of the Pension Authority, and this decision shall specify the following (Law 99-03, 1999, p3):

- The update factor applied to the wages adopted as the basis for calculating new pensions;
- Factor of raising the value applicable to pensions and liquidated grants.

The annual re-evaluation of pensions and grants financed by pension funds allowed a comprehensive revaluation of (65%) during the period 2000-2011 (Ministry of Labor and Social Security, ([www.mtess.gov.dz](http://www.mtess.gov.dz)) During the years 2013 to 2017, the value of pensions was increased by applying the following percentages:

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**Table (01):** Rates of raising the value of social security pensions and granting it

Years	2013	2014	2015	2016	2017
Rate %	11	12	5	2.5	2.5

Source: Official Gazette, Decisions on the Raising of Pensions

It is noticeable that the rates of raising pensions have decreased since 2013 to stabilize at 2.5% in 2017, and the reason for this is due to the economic situation of the country since 2014, and here we point out that there are two ways to re-estimate retirement grants, the method of estimation based on the evolution of prices, and the method of estimation based on wages (Aqasim Nawal, 2010,p175), and in 2018 the value of social security pensions was raised by applying specific rates from 0.5% to 5% commensurate with the retirement pension, and in 2019 the value of Pensions at rates ranging from 1.5% to 6%.

### 1-3 Evolution of the number of social security affiliates and retirees

Social security fiscal balances linked to higher number of retirees' pension coverage

#### 1-3-1 Position of employees vis-à-vis the Social Security Authority

Affiliation to social security is a right guaranteed to every employee, and the following table shows the status of employees towards this body.

**Table (02):** Position of Employees towards the Social Security Authority

Unit (in thousands)				
Years	2015	2016	2017	2018
Number of employed population (1)	10 594	10 845	10 858	11 011
Social Security Affiliation				
Affiliate (2)	6 515	6 747	6 198	6 406
Unaffiliated	4 079	4 098	4 660	4 596
Coverage % (2/1)	61.5	62.2	57.1	58.2

Source : Ons, activité, emploi & chômage en septembre 2018

The number of employees affiliated with social security fluctuates from year to year, as it increased in 2016 to 6.7 million affiliates, and the reason for this is the strict penalties against employers who did not declare their workers under the 2015 supplementary finance law, on the other hand, there is an increase in the number of unaffiliated workers, and the reason for this is due to the evasion of employers for not declaring their workers, and this negatively affected the low coverage rate, which is the percentage (number) of workers covered by social security, which amounted to 58.2% in 2018.

For reference, social insurance in Algeria includes wage earners and non-wage earners and special groups, such as students, mujahideen, disabled persons and others. Social insurance covers sickness, childbirth, disability and death, work accidents, occupational diseases, unemployment insurance, retirement, and family support.

Social security in Algeria affects the overwhelming majority of the population, and many categories of people who do not practice any activity benefit from social security protection, to include in 2018, 13.4 million social insured with the addition of 25 million rights holders, i.e., more than 39 million people and 91% of the population benefit from social security (Government Policy Statement, 2019, p27).

### **1-3-2 Evolution of the number of retirees**

The number of retirees is growing, and the following table shows it:

**Table (03):** Evolution of the number of retirees 2013-2018

Years	2013	2014	2015	2016	2017	2018	Growth rates% 2013/2018
Number of Retirees (1)	2 482 454	2 630 362	2 773 615	2 978 557	3 166 903	3 217 503	29.6
Population 60 years and over (2)	3 188 306	3 333 809	3 483 961	3 640 191	3 803 099	3 975 000	24.67
Coverage Rate (2/1)	77.86	78.89	79.61	81.82	83.27	80.94	

**Source:** Statistics of the National Pension Fund and the National Statistical Office: Demography of Algeria for the years 2013-2017

We note that the number of retirees is growing, as the number increased from 2.4 million retirees in 2013 to 3.2 million in 2018, an increase of 735,049 retirees and a rate of 29.6%, and the increase in the number of retirees is mainly due to the early exit of workers to the trend of relative retirement, i.e. before the age of 60 years, and retirement without the age requirement enshrined in Ordinance 97-13 amending and supplementing Law 83-12 on retirement, which was repealed by Law 16-15 of December 31, 2016 with the requirement to reach at least 60 years for men and For 55 years at the request of women, this measure allowed to reduce the number of retirees between 2017 and 2018 to 50 600 retirees.

Decree No. 94-10 of May 26, 1994 on pre-retirement for workers who lose their jobs involuntarily for economic reasons, in force to this day, has also contributed to the increase in the number of retirees.

By comparing the population over 60 years and the number of retirees, it is clear that the majority of the elderly are covered by social coverage, which exceeded 80 % in 2017.

## **2- financing the retirement system**

The pension system is financed mainly by workers' contributions, and since contributions do not cover retirement expenses, other financing mechanisms have been introduced, which we address in the following points:

### **2-1 Remuneration subject to social security**

The basis of social security contributions consists of the total elements of the salary, excluding payments of a family nature, compensation representing expenses, grants and compensations of a special nature, and compensation related to conditions of residence and isolation (Ordinance No. 95-01, 1995, p6). The excluded income elements are specified in Executive Decree No. 96-208 of July 5, 1996 laying down the modus operandi of Ordinance No. 95-01 on the basis of social security contributions and payments.

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### 2-2 Social security contribution rate

It is 35% for wage earners, of which 25% are the employer, 9% are the worker's and 1 % are the social services fund (Ben Saada Karima, 2015, p15) distributed as follows:

**Table (04):** Distribution of Social Security Contribution Rates

Section	Share sponsored by the user	Share covered by the worker	Share covered by the Social Services Fund	Total
Social Insurance	11.5%	1.5%		13%
Work accidents and occupational diseases	1.25%			1.25%
Retirement	11%	6.75%	0.5%	18.25%
Unemployment Insurance	1%	0.5%		1.5%
Advance retirement	0.25%	0.25%		0.5%
Social housing			0.5%	0.5%
<b>Total</b>	<b>25%</b>	<b>9%</b>	<b>1%</b>	<b>35%</b>

**Source:** Executive Decree No. 15-236 of September 3, 2015 laying down the distribution of the social security contribution rate, and Executive Decree No. 94-186 of July 6, 1994 establishing the content of social services and how they are financed.

The percentage allocated for retirement has undergone adjustments from 7% in 1985 to the current rate of 18.75% amendment in 2015, which is distributed as follows: 18.25% for ordinary retirement and 0.5% for pre-retirement, noting that a pre-retirement rate was introduced in 1994, at 1.5%, in accordance with Executive Decree 94-187 amended and supplemented by Decree No. 06-339 of September 25, 2006 specifying how to distribute social security contribution rates at 0.5% , to settle later in this ratio.

The contribution rate to social security for non-wage earners is 15% on an annual basis authorized by the merchant (Executive Decree 15-289, 2015, p8) distributed as follows: 7.5% under social insurance and 7.5% under retirement.

### 2-3 National Pension Fund

Pension contributions pour into a special fund, which we learn about in the following points:

#### 2-3-1 Definition of the National Pension Fund

It was created by Decree No. 85-223 of August 20, 1985, which was repealed By Decree 92-07 of January 4, 1992 establishing the legal status of social security funds and the administrative and financial organization of social security, the National Pension Fund assumes the following functions (Decree 92-07, 1992, p66):

- Administration of pensions and retirement grants as well as pensions and grants for rights holders;
- Administration of pensions and grants granted under the previous legislation;



- Ensure the collection and monitoring process and disputes for the collection of contributions allocated for the financing of retirement payments, among others.

### **2-3-2 Evolution of income and expenditure of the National Fund for Retirees**

The National Pension Fund is witnessing an imbalance in its balance due to the increase in expenditures on revenues, and the following table shows this:

**Table (05): Revenues and Expenditures of the National Pension Fund**

Unit: Million DZD

Years	2012	2013	2014	2015	2016	2017	Growth Rate % 2017/2012
Revenue	683.0	599.8	648.0	668.5	695.8	689.6	+ 0.96
expenses	572.5	685.6	803.1	931.6	1 032.6	1 168.7	+104.13
Balance	+ 110.5	- 85.7	-155.1	-263.1	- 336.8	- 479.1	- 533.57

**Source:** National Office of Statistics, Algeria in figures Results 2014-2016, 2015-2017

The National Pension Fund, which manages 3.2 million retirees, has been suffering from a deficit since 2013, increasing this deficit from 85 billion to 479.1 billion in 2017, with a decline rate of more than - 533%, despite a slight increase in revenues from 683 billion in 2012 to 689 billion in 2017, an increase of 6.6 billion dinars and by +0.96%, due to the weak growth in the number of insured wage earners by 276 000 insured in the period between 2012-2017 (ONS, Emploi & Chômage en Septembre 2018) However, expenditures increased even more from 572 billion in 2012 to 1 168 billion in 2017 with a growth rate of +104%.

This situation caused the deficit of the Fund and the decrease in the coverage rate of expenses from 87% in 2013 to 59% in 2017, while the reasons for the deficit announced by the guardian are due to the revaluation of retirement benefits every year and the large increase in wages in 2012 with retroactive effect of up to 5 years, as well as the huge increase in the number of beneficiaries of retirement amounted to 449,684 in the period (2013-2017), and the non-declaration of workers (4.6 million unauthorized workers in 2017).

But there are other reasons: the decline in the employment rate to 36.9% in 2017 (the population employment rate is the ratio of the employed population to the population aged 15 years and over), this decline is due to the high unemployment rate to 11.7%, i.e., there are 1.4 million unemployed in 2017 (ONS, emploi & chômage en Septembre 2018, p13).

### **3- future demographic changes in Algeria and the inevitability of reform**

Like many countries, Algeria will witness a population ageing that is putting more pressure on the pension system.

#### **3-1 Change in demographics**

Algeria's demographics will change through:

##### **3-1-1 High number of older persons and low number of young people**

The following table shows the demographics of Algeria for the period (2018-2040)

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**Table (06):**Demographics for the period 2018-2040

Unit (in thousands)

Years	Population	00-14 years old	Percentage %	15-59 years old	Rate %	60 years and above	Rate %
2018	42 582	12 813	<b>30.09</b>	25 795	<b>60.57</b>	3 974	<b>9.33</b>
2025	48 049	14 355	<b>29.87</b>	28 268	<b>58.83</b>	5 426	<b>11.29</b>
2030	51 352	13 868	<b>27</b>	30 711	<b>59.80</b>	6 772	<b>13.18</b>
2035	54 475	12 981	<b>23.82</b>	33 208	<b>60.96</b>	8 287	<b>15.21</b>
2040	57 649	12 815	<b>22.22</b>	34 733	<b>60.24</b>	10 102	<b>17.52</b>

**Source:**National Office of Statistics, Demography of Algeria 2017.

We note through the table that the Algerian population will increase from 42 million in 2018 to about 57 million in 2040, a growth rate of 35.38%, and the current demographics are distributed as follows: 12.8 million less than 14 years, 25.7 million less than 59 years, 3.9 million over 60 years, and the future demographic composition in Algeria will witness several changes, with the number of elderly people rising to more than 10 million by 17.52% in 2040 from 3.9 million in 2018 and by 9.33 %. an increase of 6 million in 22 years, and the percentage of the population aged (00-14) will decrease from 30.09% in 2018 to 22.22% in 2040.

### 3-1-2 Low fertility rate and high probability of survival

High rates of aging due to low fertility rates and high life expectancy

**Table (07):**Determinants of population ageing

Years	1990-1995	2005-2010	2010-2015	2015-2020	2025-2030	2045-2050	2095-2100
Fertility rate	4.12	2.72	2.96	2.65	2.29	1.98	1.86
Life expectancy	67.2	73.9	75.3	76.4	78.4	81.9	88.9

**Source:** United Nations, World Population Prospects The 2017 Revision.

The fertility rate is defined as the average number of live births per woman during her reproductive life, this rate will know a decrease from 4.12 births per woman for the period 1990-1995 to 1.86 births for the period 2095-2100, the decrease in fertility rate is due to several reasons, the most important of which are: changes in social values and habits, educational level, income level and cultural status, and the high age of marriage, the average age at childbearing for the year 2017 is 31.8 years (ONS, 2017,p26)

Per capita lifespan is expected to increase from 67.2 years in 1990-1995 to 88.9 years in 2095-2100, due to improved living standards, especially increased access to health services (ILO, 2013, p11).

### 3.1.3 Lower dependency ratio for young people and more elderly dependents

By 2040, dependency ratios will see a rise in old-age dependency and a decrease in youth dependency.

**Table (08):** Dependency rate per 100 persons of active age

Years	Dependency ratio for the category between (00-14 years)	Dependency ratio 60 years and over	Gross dependency ratio
2018	49.7	15.4	65.1
2025	50.8	19.2	70
2030	45.2	22.1	67.2
2035	39.1	25	64.4
2040	36.9	29.1	66

**Source:** National Bureau of Statistics, Demography of Algeria 2017.

The decline in the number of dependent children is mainly due to the decrease in the fertility rate, as the child dependency ratio moved from 49.4% in 2018 to 36.9% in 2040, on the other hand, there are more dependent elderly, which is due to the high life expectancy, and the elderly dependency moved from 15.4% in 2018 to 29.1% in 2040, and the dependency ratio is calculated by dividing the sum of the two categories of people under the age of 15 years and adults 60 years and over by the population group of economic activity age (15-59 year).

The gross dependency ratio for 2018 is 65.1%, meaning that 35 out of 100 people of working age support 65 people, of which 49 are children and 15 are elderly, and in 2040 the old-age dependency ratio will increase to 29 people.

### **3-2 Imperative reform**

The high dependency ratio increases the burden on the population of economic activity age with more spending, and at the level of governments increases spending on education, health and social security projects, and the direct result of these trends is that workers will have to be charged more costs to pay for additional expenses for retirement, given that the retirement system in Algeria depends on the principle of solidarity between generations, by paying workers their contributions to a fund used to pay the pensions of current retirees (Abdelhamid Garfi, 2008,p71).

With demographic variables, the pension system will not be able to meet financial obligations, which would put greater pressure on future generations, either by increasing taxes, reducing benefits, or reducing education or health care.

#### **3-2-1 Short circumstantial reforms to restore the financial balance of the National Fund for Pensions**

Among the measures taken by the State to restore the financial balance of the Fund we find:

- The abolition of proportional retirement without the age requirement in 2017, and the allocation of a solidarity contribution of 1% in 2018 to be applied to the import of goods offered for consumption in Algeria (Law 17-11, 2017, p109).

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- Impose penalties on employers who fail to declare their workers under the 2015 Supplementary Finance Law.
- The establishment of the National Retirement Reserve Fund in 2006, financed by 2% of petroleum collection, which was raised in 2012 by 3% (Mourad Boudia Sakina, Bouchaouar Radia, 2018), and the Fund is responsible for managing the financial resources entrusted to it in order to form reserves directed to contribute to the continuity and sustainability of the national pension system (Ordinance 06-04, 2006, p6).
- The establishment of a special allocation account No. 133-302, entitled National Social Security Fund, under article 67 of the Finance Act of 2010, with the aim of financing the financial imbalance of social security bodies, the resources of the Fund consist of (Law 09-09, 2009, p24):
  - 2 DZD share of the surcharge on tobacco items;
  - the output of the fee for the purchase of yachts and sailing craft;
  - The deduction quotient of (5%) based on the net profit of the bulk import and distribution activities of imported medicines destined for resale as is;
- Mobilizing an amount of 1000 billion dinars during the period (2015-2017) to finance the deficit of the pension fund thanks to the solidarity between the social security funds, in 2018 the allocation of state assistance in the amount of 500 billion dinars (Law 17-11, 2017, p46), but this amount was not enough, which necessitated the allocation of an additional amount of 64 billion dinars.

Starting from 2019, the deficit of the National Pension Fund will be covered thanks to the loans of the National Investment Fund, which it grants over a period of 40 years with a 20-year moratorium on repayment, provided that the public treasury pays the interest, and a loan of 600 billion dinars will be granted for the year 2019 (Government Policy Statement, 2019, p28).

In its 2015 report, the Economic and Social Council also proposed a package of short-term reforms, including a revision of the retirement age by raising it to 62 years, and the state intends to compensate for financial intervention with a gradual and deep reform of the pension system, whether through its sources of funding or rules on age and the calculation of grants, and this new approach is promoted by an expanded social dialogue, which was referred to in the government's general policy statement for 2019.

### **3-2-2 World Bank reform proposals**

At the international level, the reform process began in 1984 at the initiative of the World Bank with the support of 68 countries in Europe, Central Asia, Latin America and the Caribbean and granting 200 loans, in addition to that, the World Bank issued 350 publications on pension reform (World Bank Independent Evaluation Group,p29), and the Bank's strategy implements multi-pillar pension reforms, when the initial conditions for the financial and macroeconomic sector and sufficient capacity to implement the reform are available. Conditions we find: Argentina, Mexico, Russia, these pillars include:

- **The first pillar:** also called the social pension system, is a public program and compulsory tax financing (wage tax) targeting the elderly with low ageing in order to reduce poverty.
- **The second pillar:** It is a program with special management and compulsory financing by allocating pensions to all citizens by governments, and the amount of pension that individuals receive depends on the private contribution during the period of employment.
- **The third pillar:** is an additional (optional) folding program financed through personal savings for greater protection, where individuals pay part of their profits to financial institutions run by the private sector that invest these funds (Organization of Islamic Cooperation, 2015,p36).

These pillars must be financially and politically supported in order to support income, while unsubsidized pension systems can be an obstacle that affects financial stability, economic growth and poverty reduction, in contrast to an individual program, the first pillar is directed to poverty reduction and the second pillar supports the flow of consumption, and it is expected that the two pillars will protect against the costs of changing demographics, increasing the number of elderly people, protecting the system from political risks, and facilitating individual decision-making, and is expected to contribute Multi-pillar systems in national savings and financial market development (World Bank Independent Evaluation Group,p31).

According to World Bank data, 82% of pension funds worldwide are managed by public institutions and 18% by the private sector (OIC, 2015, p36).

When financial conditions for the financial sector and macroeconomic sector are not met, the Bank supports standard reforms or an installment payment system aimed at achieving financial stability, by delaying the retirement age and increasing the contribution period, introducing pension restrictions, setting options for early retirement and increasing contribution rates.

## **CONCLUSION**

The circumstances that the pension system is going through require accelerating the rebalancing at the level of the National Pension Fund, which suffers from a severe deficit that threatens its sustainability, which necessitated the intervention of the state every time to prevent the payment of pensions, this situation will not be able to withstand in the future in light of demographic changes heading towards population aging, and for this it is time for radical reform, Algeria is delayed, at the international level these reforms began at the end of the eighties.

The reforms adopted to rebalance the pension fund have relied mainly on increasing spending for the sector, which increases the drain on resources, while there are more effective tools such as finding mechanisms to push employers to permit workers as the latter is an important financial resource for the fund, especially since a large percentage of workers in the private sector are not affiliated with social security, and encouraging the establishment of projects to attract employment and increase employment rates.

### **Through the study, we reached the following results:**

- The pension system in Algeria is based on a special system;

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- Social security covers a range of social risks affecting the majority of the population;
- High unemployment and low social security enrollment are major factors in the deficit of the National Pension Fund, so attention must be paid to these two factors;
- Algeria is moving towards population ageing, which is putting more pressure on the pension system;
- Algeria has delayed radical reforms of the pension system, like other countries that have been the first to do so;
- Algeria has relied on standard reforms, such as raising the retirement age and more financial support, but they will not be feasible in the future;
- The World Bank supported many countries to reform pension systems and introduced a model based on the principle of capitalization and distribution according to three pillars.

In the light of our findings, the following recommendations can be made:

- Tougher penalties should be imposed against employers who fail to declare their workers to the Social Security Agency, 4.5 million unauthorized workers in 2018;
- The employment rate must be increased, by encouraging entrepreneurship and supporting the creation of enterprises;
- Choosing an effective reform model must be compatible with the social and economic specificities of the country, and take into account the granting of a pension that guarantees a decent life for the pensioner and does not come at the expense of exhausting the income of the participants.

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