

# The Algerian Experience in the Retirement System Between the Factors of Reinforcement and the Problems of the Economy

Zainab J. Muhammad Ali, Ahmed Sobeeh. Attia

**Abstract:** *The Algerian economy is distinguished by comprehensive economic planning and the government interfering with all aspects of life and economic activity. The research is mainly concerned with the pension system in Algeria. The research is mainly concerned with the pension system in Algeria and the factors that support the system and others that may be a major obstacle limiting its efficiency for applying. Among many parameters the research was covered : conditions for obtaining and types of retirement, how to finance the retirement fund in Algeria. The obtained results, which included government debt, public debt, represented the volume of investments for the National Pension Fund for the years 2003-2017 which shown direct relation with financial sustainability of the National Pension Fund.*

**Keywords:** *Algerian, Economic, sustainability, Retirement Fund, GDP.*

## I. INTRODUCTION

The transition of the individual from the stage of continuous work to a stage characterized by comfort and calm, refers to the retirement and also a social process that includes the voluntary or forced abandonment of the work which was done. and that represent by withdrawal from the workforce in society and transformation to depend system of material sufficiency, which is The social insurance system, where the pension replaces the wages [1].

It was also defined as the stage when a salaried or non-paid worker or employee moves or withdraws from work position, after spending period of time agreed upon in the retirement system or reaching a certain age that does not allow in the activity. Generally, Retirement is the severance of the functional relationship between the employee and the public administration to which belonged in the past, whether it was obligatory, legal or optional, according to request, taking into account there is a pension salary due to persons whose needed for it. Legally the retirement definitions were varied according to the abundance of legal legislation and its difference from one legislator to another, and continent legislative systems which represent the main basic structure on which the retirement system is based in each country [5].

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the philosophy view of retirement systems is based mainly on the principle of social solidarity in the sense of solidarity among all individuals Society in covering the dangers of old age, disability, death and others.

The pension system in any country was considered an integral part of the social insurance system, which is considered maintains solidarity among the working generations in which part of their income goes to the pensioners' salaries through the percentage that the state bears and pays from the income achieved at the present time. The prevailing level of income that should take into account the prevailing price level (inflation), and ensure protection for a large segment of society, through the mechanism of redistribution of income and wealth, and the pension system in each country always seeks to achieve social justice.

Determining the legal age for referring employees to retirement was usually subject to many matters related to the economic and social conditions prevailing in the country, so the legal retirement age has varied between countries and in the same country from one period to another, and this is evident from the varying economic and social conditions of the population. The relationship between the employee and the administration, which is governed by laws, instructions and legal regulations, was governed by these laws and the employee which limited with two parameters: the ability or not ability to set a specific period to end job service, and the administration which can also not exceed these limits except in the case of an explicit legal text that the retirement age may be extended or reduce it [3].

Many countries in the world depend on the income of pension funds to establish long-term economic investment projects that were compatible with the nature of the funds that require continuous and sustainable returns and the provision of rewards to the members of those funds. the dependence on pension funds has become financing For large and medium-sized economic projects with economic feasibility, through the financial surpluses that accumulate in retirement institutions and resulting from monthly deductions. the last activities leads to financing economic development and increases employment opportunities in economic sectors, and reduces waste in foreign currencies through Reducing the volume of imports from abroad and balancing the country's trade balance [4]. Thus according to previous details Pension funds are the most important components of the social protection system, as they are seen as one of the important means that allow individuals to attract and collect their savings during their working life [6].



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It is referred to as a type of social investment institution that works to achieve social goals in economic ways, to collect contributions from those covered (government, individuals, employers) and invest them in ways that enable to meet its future financial obligations towards those covered [7].

There are sources of financing for social protection, which can be classified to Internal financing, and External financing (from outside the pension institution) the first section includes funding through the budget of the pension institution, financing by investing in securities and Subscriptions while, the other includes loans and subsidies and Finance by budget [8].

the most common terms in the second half of the twentieth century is financial sustainability, which introduced by the International Monetary fund and the World Bank to developing and developed countries to solve the problems facing their economies such as structural issues, external debt and public budget deficit. Researchers, and financial institutions have been interested in financial Sustainability, because this term refers to the ability to repay public debt in the medium to long term without a financial crisis or severe pressure on public finances [9].

The Algerian economy is distinguished by comprehensive economic planning and the government interfering with all aspects of life and economic activity [2]. The Algerian government owns very important human and natural resources. The expansion of the economically active youth base, in addition to the oil wealth and natural gas, and the National Charter (1964) emphasized the need to move from a capitalist economy to socialism, and this was confirmed by the Second National Charter (1976), which insisted on removing the obstacles that prevent the transformation to socialism, and to prevent the private sector from becoming an economic force controlling economic activity in the country.

## II. THE ECONOMIC SYSTEM IN ALGERIA

The common case for Arab countries was Algerian economy which is depend on the extractive sector, as this sector represents the backbone of the economy. the economy contributes to (60%) of the revenues of the state's general budget, (45%) of the gross domestic product, approximately (97%) of export revenues, and that the economic growth of approximately (8%) [10] [11]. Mostly the budget comes from the extractive sector and the government has tried hard to take advantage of financial resources from extractive exports to build an industrial sector to achieve diversity in financial resources and away from the specter of rentierism that haunts many Arab countries. the biggest obstacle It is the heavy legacy of French colonialism, which made the economy dependent and not self-reliant, deepening the imbalance and rooting the public sector [12]. The pension system in Algeria reflects the nature of the social system in the country that maintains an acceptable standard of living,

and represents the case of the end of the work relationship as a result of the worker or employee reaching a certain age after when cannot fulfill the duties entrusted to him, so he benefits from social guarantees, pension premiums and taxes that he paid during His useful life, and the legal article (83) of Law (12) of 1983 was considered, which expresses the state of retirement is the end of the work relationship, whether the referral is at the request of the worker or on the initiative of the employer, provided that the legal conditions are met, so the retirement is the end of service or the end of the work that results in the loss of the official capacity of the employee, as it represents an integral part of insurance and represents a personal and acquired right for the working individual or through other titles through which the person obtains social pension insurance, and the insurance system in Algeria is based on the following foundations: [13][14]. ensure retired individuals receive a compensatory income for the elderly the purpose of enabling them and their families to cover daily living needs.2.possible for individuals who did not pay the monthly subscription or who paid a small period of their actual service from the contributions in the retirement tax during granting them some privileges.3. joint solidarity between the workers participating in the payment of the retirement tax, whether from the same or different generations.4. The Algerian pension system takes into account the consumer price index to maintain a stable standard of living.5. The pension system observes the principle of social justice even for persons who have not paid contributions.

### A. Types and Financing the Retirement Fund in Algeria

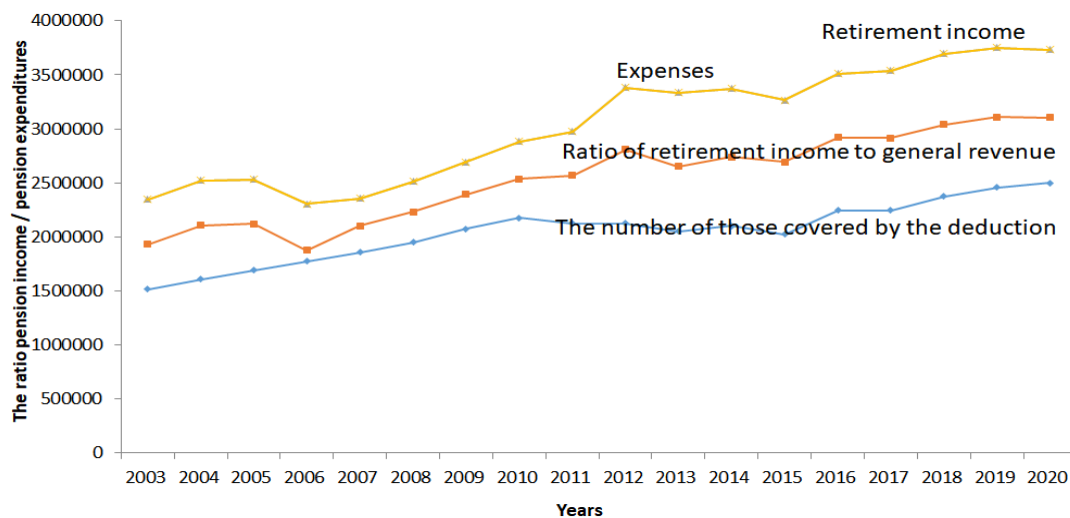
Generally the retirement include different types which were normal retirement, Relative retirement, advance retirement, Retirement without age conditions, and Retirement of high-ranking tires in the country. all the kinds of retirement required specific conditions for appalling such age , times and ether requirement for appalling. Pension income has an inverse relationship with the number of those covered by the retirement and a direct relationship with those covered by the retirement deduction, so we notice an increase in revenues as a result of the increase in subscribers with the deduction. The amount increased from (41) billion dinars when the number of those covered was (1.5) million individuals, to (49) billion dinars in (2004), then to (50) billion dinars in (2006), after that to (58) billion dinars in (2008) when the number of those covered by the deduction was (1.9) million. Note that the expenditures are not affected by the number of those covered by the subscription only, but are also affected by those covered by obtaining the retirement pension. Table (1) shows the direct relationship between the contributors with the deduction and the retirement income, and the inverse relationship between the beneficiaries and the retirement income [15-20].



**Table 1: The Number of those Covered by the Deduction, Pension Income and Expenditures in Algeria is One Billion Dinars**

Years	Number of Covered by Deduction 1	Retirement Income 2	Retirement Benefits 3	Ratio (3) to 2
2003	1512682	41.9340	41.3310	98.56
2004	1605527	49.9110	41.9030	83.95
2005	1688055	43.0440	41.1110	95.50
2006	1771596	50.1410	43.1900	86.13
2007	1858902	54.4910	42.1900	77.42
2008	1948138	58.4400	29.8750	51.12
2009	2075444	51.7550	31.7550	61.35
2010	2173745	55.0471	35.0067	63.59
2011	2124595	44.5663	40.6601	91.23
2012	2124595	68.3060	57.2520	83.81
2013	2050903	59.9899	58.5661	97.62
2014	2100031	64.1479	62.9090	98.06
2015	2025328	66.7234	57.3468	85.94
2016	2245361	67.2341	59.2314	88.09
2017	2246186	66.9787	62.3415	93.07
2018	2376581	66.2710	65.8387	99.34
2019	2456272	65.2241	64.0901	98.26
2020	2497564	66.5488	60.8754	91.47

The government of Algeria has worked on making amendments to the retirement system through legislative and organizational measures to maintain a decent standard of living and reduce the burdens on retirees and contributors. It also provided loans to small projects and worked to address unemployment through the establishment of an unemployment insurance fund.



**Figure 1; The Skim for the Relationship Between Pension Income and Pension Expenditure and the Ratio Between Them**

### III. INVESTING IN RETIREMENT INCOME

The Algerian pension fund is concerned with a set of tasks that are commensurate with the developments in the nature of the economic system that adopted the IMF prescription, which resulted in the layoff of a large number of workers and the increase in the number of those receiving prior retirement, which led to an imbalance in the Algerian pension system and an increase in pension compensation which prompted him to think about investing in the fund's money in securities, so the fund offered bonds for sale in the stock market to cover the deficit in the fund's budget during the period (1994-1997).

The process involve the private sector in realizing resources and covering pension expenditures and developing a set of steps that allow the retirement fund to adapt to economic and political transformations and not rely heavily on the socialist system. On the extractive sector.

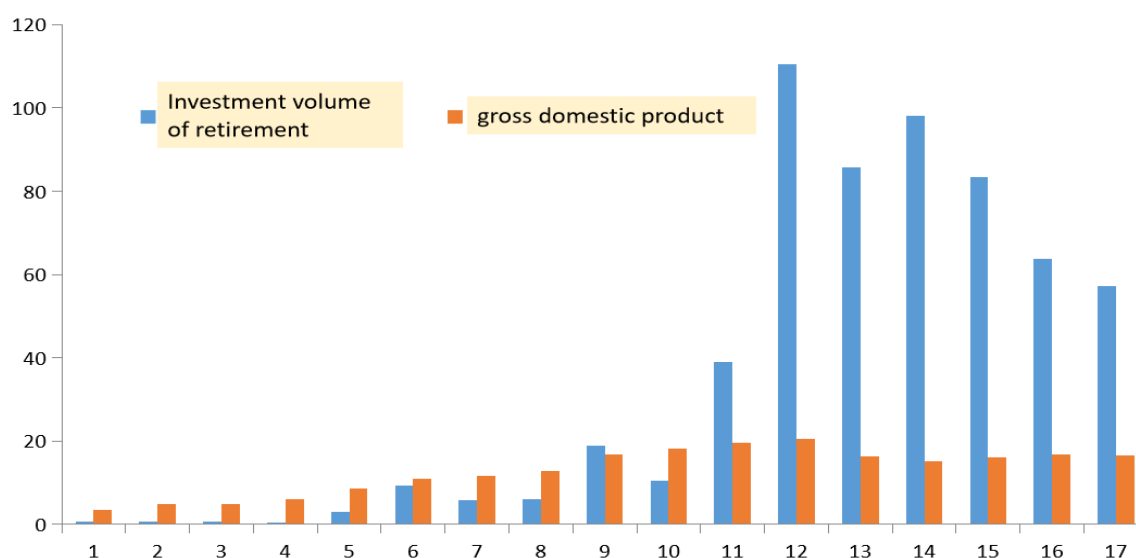
Table (2) shows that the volume of investments for the National Retirement Fund amounted to (660) thousand dinars in (2003) with a percentage of (0.18) of the gross domestic product, and in (2004) the volume of investment was (220) thousand dinars, with a percentage of (0.04) from Gross domestic product, as the ratio was at its lowest level in at an amount of (20) thousand dinars, and at a rate of (2006) of the gross domestic product (0.003)

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**Table 2: Investment Volume, Gross Domestic Product and Investment Ratio Billion Dinars**

Years	(Investments from retirement)	Gross domestic product 2	Ratios of 1/2
2003	0.66	360	0.18
2004	0.22	490	0.04
2005	0.62	500	0.72
2006	0.02	600	0.003
2007	3.09	860	0.35
2008	9.26	1100	0.84
2009	5.81	1170	0.49
2010	6.14	1280	0.47
2011	18.8	1690	1.11
2012	10.40	1830	0.56
2013	39.06	1960	1.99
2014	11.54	2050	5.62
2015	85.76	1630	5.26
2016	98.15	1520	6.45
2017	83.37	1600	5.20
2018	63.72	1670	3.81
2019	57.32	1650	3.47

After the year (2007), the investment rate started increasing for a main reason, which is the rise in crude oil prices, and the increase in government grants to the National Pension Fund from rentier revenues, and the size of retirement investment ) remained very modest even with the rise in oil prices. It is noted from Table (2) and Figure2 that the volume of investments ( remained modest. At best, it did not exceed (110) million dinars in the year (2014) when crude oil prices reached their peak As for the rest of the years, they are gradually increasing, from (10) million dinars in (2012) to (39) million dinars in (2013) with a ratio of (1.8). ) Figure2 shows the correlation between the volume of GDP and the volume of investments, given that ( .GDP is an independent variable and the volume of investment The national pension fund is a dependent variable of GDP



**Figure 2: The Skim for Investment Volume with GDP in Algeria**

## A. The Relationship of Financial Sustainability with the National Pension Fund

Financial sustainability is defined as the state that is achieved when there is public debt commensurate with public finance and aims to cover the deficit required in order to finance desirable economic growth. Gross Domestic Product and .Affects Public Debt[18] The public debt represents the amount of borrowing that the state obtained in the past and is still borne by it as one of the indicators of financial sustainability, that is, it bears servicing the debt burdens and its benefits. One of the most important causes of public debt is the inability to finance public expenditures that do not bear change and delays, foremost of which are operational 'expenses, including salaries. Employees, pensioners .pensions and government operational purchases

Governments borrow locally or internationally, whether from local banks or the public, or from international financial institutions such as the International Monetary Fund or from certain countries. The deficit that calls for borrowing is accompanied by an expansion in public expenditures by more than an increase in public revenues. For the state, the state sometimes resorts to monetary methods represented in deficit financing or issuing bonds and selling them in the .centers it determines to cover its expenses



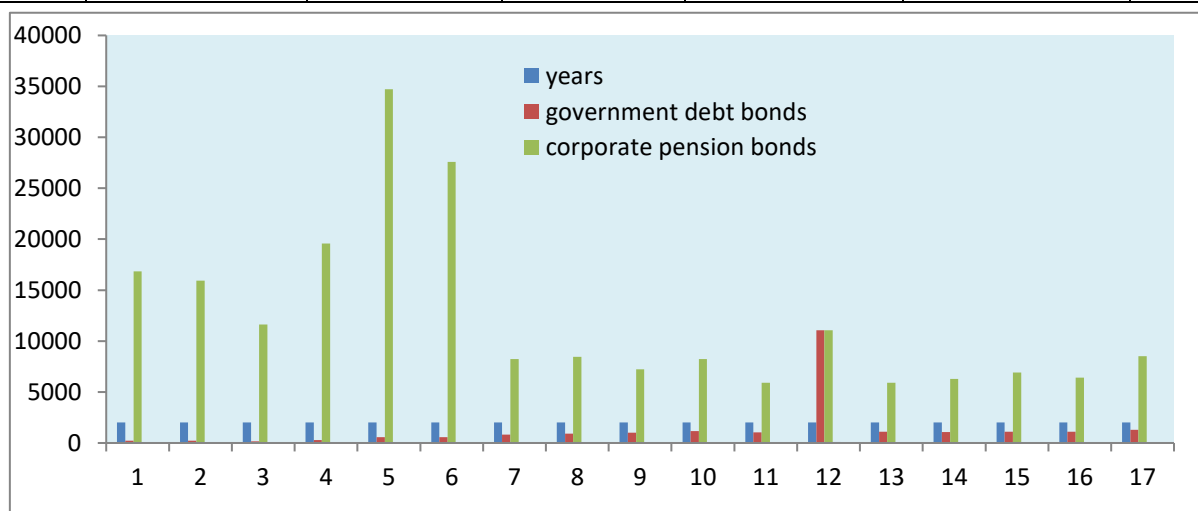
Table No. (3) shows the Algerian government debt, as its main reason was to cover government expenditures including covering the expenses of the National Pension Fund. The size of the government debt was (233) million dinars in (2003), and decreased in (2004) to (218) million dinars, and continued to decline to (171) million dinars in (2005) and rose again to (557) million dinars in (2007) and (2005) the debt curve took an upward trend continuously to become million dinars in (2009), then (1017) million dinars in (2010) then it became (1017) million dinars in (2011), then (2010) million dinars in (2019) (1291)

The indicator of the ratio of public debt to GDP is one of the indicators that shows the percentage of total resources available in Algeria for the purpose of servicing the public debt. We note from Table (3) that this ratio recorded its lowest level in (2005) when it recorded 34%, and it continued to rise to It reached 78% in (2019), which is its highest level, and the percentage is considered very high, and this is justified considering that Algeria has taken a bold step to invest in natural gas and link the North African gas pipeline with Europe to obtain gas sales contracts and attract companies specialized in the production of natural gas And

the localization of the hydrocarbon industries through the establishment of a base and infrastructure that help establish a developed industry that helps diversification, meaning that the external public debt is allocated for investment purposes as well as covering operating expenses, foremost of which is covering the needs of the National Pension Fund (2).The Algerian economy is a one-sided economy that suffers from duplication in its economic structure, as it depends on crude oil and natural gas, which constitute (95%) of the Algerian government's exports, and contribute a large percentage of the state budget by (60%) of total revenues and (30%) Of the gross national product the gross national product in the year as the size of the proven reserves is 160 trillion cubic ,2018 feet of natural gas, so the government aims to expand production of natural gas and from manufactured gas to hydrocarbon derivatives, for export to European markets by linking to the pipeline network (Enrico Mate), which connects the largest Algerian gas fields (Hassi R'mel) and then to Tunisia and then to Italy, in addition to the second line (Pedro Duran Farel), which extends to the heart of Europe through Spain through the countries of the Maghreb and its capacity is (8) billion cubic meters per year of natural gas.

**Table 3: Government debt, GDP, debt securities and Corporate Pension Bonds in Algeria**

Year	Government debt 1	Gross Domestic Product 2	Ratios of 1/2%	Gross Domestic Product 4	Corporate Pension Bonds 5	Ratios of 5/1 %
2003	233.53	360	64.86	16834	18.4	7.87
2004	218.21	490	44.53	15927	19.4	8.89
2005	171.91	500	34.38	11632	26.2	15.24
2006	271.91	600	45.31	19583	37.2	13.68
2007	557.03	860	64.77	34724	28.7	5.15
2008	570.21	1100	51.83	27581	23.9	4.19
2009	827.60	1170	70.73	8234	19.6	2.36
2010	920.37	1280	71.90	8453	38.5	4.18
2011	1017.67	1690	60.21	7231	49.2	4.83
2012	1165.56	1830	63.69	8243	73.2	6.28
2013	1046.44	1960	53.38	5915	82.0	7.83
2014	11048	2050	53.89	11048	91.6	0.82
2015	1107.6	1630	67.95	5923	49.2	4.44
2016	1086.43	1520	71.47	6302	39.2	3.60
2017	1102.39	1600	68.89	6920	41.9	3.80
2018	1104.33	1670	66.12	6424	13.5	1.22
2019	1291.24	1650	78.25	8513	19.1	1.47



**Figure 3: The Debt Securities, Corporate Pension Bonds, and Government Debt**

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## IV. CONCLUSION

Because the Algerian economy is one-sided, it suffers from duplication in its economic structure, as it depends on crude oil and natural gas, which constitute the main source of increases and contribute a large percentage of the state budget from total revenues and from the gross national product. One of the most important reasons for resorting to public debt is the inability to finance public expenditures which cannot suffer any change or delay, foremost of which are operational expenses, including workers' salaries retirees' pensions, and government operational purchases. The correlation of pension revenues with the number of those covered by retirement inversely and directly, with the number of those covered by the pension deduction positively or negatively, with an increase or decrease in revenues as a result of an increase or decrease in the number of deductions.

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