Scientific research bulletins, Volume 9, Issue 1, Year 2021, Page 890-904

The Sovereign Pensions Funds as a mechanism to Protect Retirement Systems: the Norwegian Sovereign Pensions Fund as a Model

Boukabous Meriem *1

Centre Universitaire de Tipaza, Algeria, boukabous.meriem@cu-tipaza.dz

Received: 28/04/2021, **Accepted:** 23/05/2021, **Published:** 08/06/2021

Abstract: The study aims to highlight the phenomenon of sovereign pension funds and the role they play in protecting pension systems from fluctuations due to the changing economic and financial conditions of the country and the world. Many countries sought to establish these funds in order to provide sources of funds for pension funds; we have shed light on the Norwegian pensions fund as well as the National Pension Reserves Fund of Algeria.

Keywords: Retirement, Pensions, Sovereign Pension Funds

Jel Classification Codes: F33 ,J26

1. Introduction:

Nowadays, numerous states look for achieving the social justice through the social protection systems, which would attain a safe life far away from risks, that may threaten various social segments. The modern societies have worked on developing the social protection systems through putting general policies, which would diminish the no safety feeling, and reduce the bad effects of one of the social emergency cases. Legislations have been set, and several bodies and establishments have been created for securing the income and the health insurance.

Pension funds are among the bodies having an important position in the global economic and financial arena, since they have ranked second in terms of their assets' volume, which have reached 16 trillion dollars by the end of 2019. In addition to that, these funds are considered as means through which the social justice can be achieved within the country. Besides, a new type of funds, known as the sovereign funds, has emerged. The governments have looked for creating these funds for the sake of protecting the pensions from erosions resulting from the changes occurring at the level of their systems or the international financial markets; hence these funds' assets have become competitors to several investment financial bodies such as: the investment funds and hedge funds.

Like the other states, Algeria has created social protection programs, and the most important ones are the social insurance funds and the pension funds, which became necessary to protect individuals of various social segments. Algeria has also created a sovereign pension fund, which is known as the national fund of retirement reserves. This calls to shedding light on these funds in order to know more about them, their investment strategies, as well as the development of their assets.

Through this article, we shall attempt to answer the following problematic:

To what extent have the sovereign pension funds contributed to maintaining the retirement systems?

In this study, we've relied on some relevant studies among which we mention the following:

- Philip Davis's study, from the Pensions Institute in London, which is entitled as "Pensions funds, financial intermediation and the new financial » landscape"in 2000. In his study, He indicated the modern ways, which became useful for the pensions funds in increasing their assets volume, their role in the financial intermediation, as well as the developing ways of the payment and recovery methods within these funds.

- The study of Sandra Blome, Kai Fachinger, Dorothee Franzen, Gerhard Scheuenstuhl, Juan Yermo, which is entitled as "Pension Fund Regulation and Risk Management", and was published in 2007. The study addressed the modern methods in managing the pension funds by relying on the assets and liabilities modelling system. It has presented the extent of the modelling application in several OECD (Organization for Economic Cooperation and Development) member states like Japan, Great Britain, and USA.

2. The theoretical framework of the sovereign pension funds:

The sovereign pension funds are dated back to the 1950s. Generally, the researches and the studies indicate that there're three waves of wealth sovereign funds, which have been linked to several economic aspects and international issues, that have significantly affected the development of these funds numbers and their assets volume, such as: the three oil booms, the petrodollar emergence, the international markets opening, and the globalization emergence with all of its forms. In general, the Norwegian pension fund is considered as the first pension sovereign fund; it was established in 1998. (boukabous, 2014, p. 51)

2.1 Pension Funds Definition:

Pension Funds have been defined by E Philip Davis as" *forms of institutional investor, which collect, pool and invest funds contributed by sponsors and beneficiaries to provide for the future pension entitlements of beneficiaries"* (Davis, 2000, p. 02)

They're considered as *"managed funds, either by the governments or the social insurance bodies, for the sake of managing the funds of pensions*". Thus, there're two kinds of pension funds: (Blundell-Wignall, Yu-Wei, & Yermo, 2008, p. 05)

- The first type is the social security reserves fund: it's considered as an important part of the social security system. The inflows are mainly formed of the employees' pensions or of the government's contributions. The assets are managed by the social security fund itself or by other independent establishments such as the Canadian pension fund. This latter is totally independent from the government, and Funded from the citizens' pensions and through the subsequent financial returns from investing these funds.

- The second type is the sovereign pension funds: the governments create the pension reserves funds, aiming to face the future financial needs of the pension funds. These funds look for managing a part of the governments' financial surpluses for the sake of facing the future deficit in the social security system. Among these funds, we mention: the Australian future fund, the Norwegian pension fund, and we find also some pension funds that are in the form of a mixture between the individuals' pensions and the state's financial surpluses such as: the Singaporean investment establishment; this fund is managing the foreign currency reserves and the pension reserves.

2.2 The difference between the sovereign pension funds and the pension funds:

The pension funds are considered as one of the investment and profitable means of managing money and acquiring returns. These amounts of money consist of the participants' contributions whether individuals, employees, companies, or the participating governmental bodies in these funds. The formation, structuring, and the quality of governmental pension funds relies on legislations, systems, and the governmental instructions of each country, through which the contribution eligibility, the number of service years qualifying to the retirement salary, the minimum of the age and contribution period and retirement, and the number of years of contribution in the pension funds, are determined. This can help in making an eligible contributor and guarantee his eligibility for the retirement salary, its privileges, the way of counting it, its value, the way of spending it and benefitting from it and his family after him/her.

Thus, the difference between the pension funds and the sovereign pension funds may include the following points:

- The pension funds, in their earnings, rely on the participants' contributions, whereas the sovereign pension funds rely on the state's financial surpluses and the registered surpluses at the pension funds and the social security funds.

- The pension funds depend on a diversified mixture of short, medium, and long-term investments for guaranteeing the achievement of continuous financial flows, whereas most of the sovereign pension funds investment policies rely on long-term investments for facing the pension funds' future deficit.

- The pension funds may be governmental as they may be private, unlike the sovereign pension funds that may not be private, and they are only possessed by governments.

- The difference between the governmental pension funds and the sovereign pension funds lies in the fact that the latter consist of the financial surpluses arising from the first, which are oriented towards investment for covering the future individuals' contributions.

2.3 The role of sovereign pension funds in funding the pensions:

Some sovereign wealth funds have been created for funding the future pension's commitments, particularly in the light of the demographic growth witnessed by several states, especially the emerging ones. Several states have achieved considerable financial surpluses resulting from their governmental retirement systems, hence they thought of investing these financial surpluses in a form of sovereign funds to guarantee funding their future commitments. The role of the sovereign pension funds is that they're saving tools, through which the pensions are mobilized throughout the conducive economic situations. Then, the pensions will be invested and exploited in case of any deterioration, or growing requirements of aging people. These funds rely, in their investments, on long-term investment plans for guaranteeing achieving higher returns, which go hand in hand with the individuals' contributions nature, as well as the prevailing economic circumstances. Among these funds, we mention the Russian national wealth fund and the French pension fund.

It is worth noting that the sovereign pension funds differ from the governmental pension funds, since the latter is funded from the employees and workers' contributions in accordance with explicit commitments and determined conditions, whereas the sovereign pension funds are funded from the formed surpluses at the governmental pension funds, in addition to that they do not have any explicit commitments, and withdrawing funds from them is banned, except for the exceptional circumstances, which necessitate the intervention of the sovereign wealth fund. On this basis, we may say that the sovereign wealth pension funds make a secure cover for the governmental pension funds throughout the crisis.

3. The Sovereign Pension Funds Portfolio Assets Management:

The sovereign pension funds are considered as one of the investment tools on which the governments rely, for covering the increasing retirement demands. Through time, the social security funds have become unable to deal with these demands, in the light of the weak investments and the achieved returns. For a long time, both of these funds were relying on buying governmental bonds, but the volatility of interest rates caused them many losses, which threatened numerous contributors' social situation.

The sovereign pension funds' investment strategies, for a long time, have been limited to the investment in the short-term liquid assets, especially the American Treasury bonds, but nowadays these funds invest in the other bonds, shares, the derivative financial products, or the real estate assets, since the assets diversity allows investing the high rentability assets, but with high risking. Today, it's noticeable that some of these funds invest through the private investment funds, which can efficiently estimate risks with getting high net profits in return, since their assets consist of 35% to 40% of a fixed income (the American treasury bonds) and 50% to 55% of the incorporated companies' shares and the other assets. (Bertin Delacour, 2009, p. 39)

The management of the sovereign pension funds' assets relies mainly on risks management, since this latter becomes a growing developed function within the financial establishments. The sovereign pension funds' risks management include the assessment and evaluation of the social security funds' risks, designing, controlling, and reviewing the fund's standards (the contributions, the interests, and the investments) for processing these risks according to the funds' aims. (Blome, Fachinger, Franzen, Scheuenstuhl, & Yermo, 2007, p. 05)

The pension fund is exposed to the risk of insufficient assets for covering the retirement demands and the granted privileges, within the retirement plans, which is mainly due to several risks including the investment risks, the inflation, and the risk of aging contributors. Thus, the management of risks must be based on the following goals: (Blome, Fachinger, Franzen, Scheuenstuhl, & Yermo, 2007, p. 06)

- Reducing the cost of the contributors' pensions.
- Eliminating the risks of the contributions' returns.

There should be a balance between the contributors' contributions, from one side, and allocating the assets and the risks linked with them, from another side. Several pension funds rely on ALM (the Assets-liabilities modelling), which is a principal way of managing and assessing the strategic financial risks. It's used by the pension funds as a helpful mean for choosing the best pension policy, in the light of the instable economic circumstances and the state's general financial policies. The ALM comprises of developing mathematical models for future development of the pensions fund's assets and liabilities' starting from some hypotheses about the statistical characteristics of the economic, financial, and biological variables, that affect the assets and liabilities' development. Through time, these models have been developed moving from "the one-period fixed" type to "the dynamic multi-period" type of models, which include the assets' random simulation. (Blome, Fachinger, Franzen, Scheuenstuhl, & Yermo, 2007, p. 07)

For investing their assets, the sovereign pension funds rely on several mechanisms such as:

- Buying the American treasury bonds for assuring obtaining the fixed income and reducing risk.
- Buying various foreign currencies' treasury bonds to avoid the risk of the exchange rate fluctuations.
- Buying the bonds of the companies that have a direct relationship with the pension fund for the sake of protecting these establishments from any volatilities affecting the paid contributions to the pension fund.
- Mixing the shares and bonds with the various financial derivatives for maximizing the return.

4. The role of the Norwegian Pension Fund in Protecting the Pensions:

The Norwegian experience, in the field of sovereign wealth funds, is considered as an international pioneering experience as attested by the international organizations like the International Monetary Fund. Depending on performance measurement indicators that classify this fund in the first ranks, and before reviewing this experience, we've to demonstrate some of the economic features of this country, which is categorized amongst the most developed countries in the world. It's the sixth in oil production and the third one in exporting it.

It adopts a mixed economic model, based on respecting the market principles with the state's strong role in the field of economy. Its gross domestic product has been estimated with 481 billion USD, with less than 5 million population, hence the Norwegian citizen income is categorized amongst the high levels in the world "55200 USD per the individual". The Norwegian economic structure is characterized by the relative diversity with the dominance of the service sector on the gross domestic production with more than 60%. The hydrocarbon sector contributions don't surpass 50.73% of the total exports, while the oil fiscality incomes do not surpass 36.41% of the state's general revenues; what makes the Norwegian economy less connected to the oil sector. Thus, it's less exposed to the external shocks. (BOUFLIH, 2011, p. 124)

The Norwegian government has established a sovereign wealth fund called "the petroleum fund". It's funded through the government transfers of the accomplished financial surpluses at the level of the state's general budget, as a result of the increased oil prices in the international markets.

4.1 Fund's Emergence:

The year 1996 was marked by the real beginning of the petroleum fund through receiving the first government transfer resulting from the accomplished surpluses in the state's general budget in 1995, knowing that the fund's activity has firstly been limited to the investment in the governmental bonds, then it expands to the investment in shares and real estates. In 2006, the fund witnessed important amendments; its name was changed to the governmental pensions fund, in addition to the expansion of its tasks and goals to include supporting the gross governmental pension system "GPFG" and maintaining its stability in the future through providing the sustainable coverage of retirement expenses, because of the anticipation of an increased rate of aging people in the Norwegian society, thus the retirement expenses would increase to a record levels in the future.

The fund's goals consist in: (Kjersti, 2007, p. 06)

- Consolidating the government capability for the long-term management of the petroleum wealth income.
- Protecting the employees' contributions at the pension funds, for the long-term, and providing the necessary liquidity for the social security funds and the pension funds during the crises.
- Maximizing the returns for the long-term within the acceptable risks.
- Achieving the principle of the wealth fair distribution amongst generations.
- Transforming the petroleum wealth into financial wealth by investing it in the international financial markets, taking into account the principle of the risk-return.
- The fund transfers 0.4%, of its annual returns, to the general budget.
- Maintaining the stability of the state's general budget and protecting it from the impact of the petroleum returns volatilities.
- Separating the petroleum fund from the general budget to avoid every intervention may occur between them in terms of aims and functions.
- Avoiding the petroleum wealth negative effects on the Norwegian economy such as: increasing the local currency exchange rate, the decrease of the productive sectors' competitivity domestically and abroad, and the orientation of the financial resources towards the petroleum sector, which is known as the Dutch sickness.
- Achieving the maximum possible return considering the portfolios in which the fund may invest, and avoiding the decrease of the fund's assets' value in case of keeping it in the form of liquidity.

- Investing the financial assets makes the government able to get the liquidity in a short time considering the rapidity of transforming these assets into liquidity.

4.2 Fund's Assets Management:

The Norwegian pension fund ranks the third in the world, in terms of its assets, which have reached 1000 billion USD (1 trillion Dollars) by the end of 2019. It's also considered as the ideal fund in terms of transparency. According to Linaburg Mauduel 's scale of transparency, it gets 10 grades. The fund's assets have noticeably grown, since the fund started with 18 billions of dollars in 1998, and it arrived to around 1 trillion dollars at the end of 2019. It has achieved a return rate of 07.15% to the portfolio, for three years, and 06.74%, for ten years.

First: The Assets Volume:

The Norwegian pension fund was created in 1998, with a volume of assets, which doesn't surpass 19 billions of Dollars. Later, it becomes the most powerful sovereign fund in the world. Its assets volume is expected to surpass 3 trillions of dollars by the end of 2030. The following table demonstrates the evolution of the Norwegian pension fund's assets since its creation in 1998 until 2019.

Table 1: The evolution of The Norwegian Pension Fund's Assets (1998-2019)

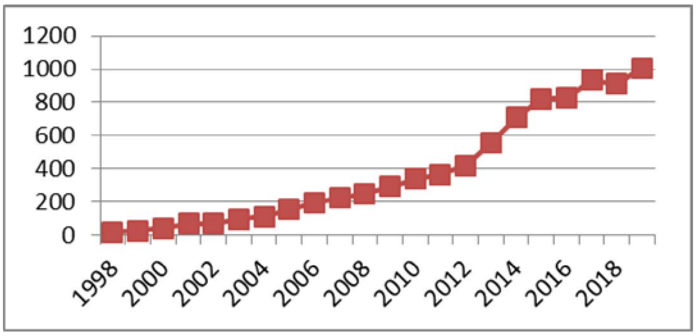
Year	Assets Volume by Norwegian Krone (Billion)	Assets Volume by USD (Billion)	Year	Assets Volume by Norwegian Krone (Billion)	Assets Volume by USD (*)(Billion)
1998	172	18,92	**2009**	2640	290,4
1999	222	24,42	**2010**	3077	338,47
2000	386	42,46	**2011**	3312	364,32
2001	614	67,54	**2012**	3816	419,76
2002	609	66,99	**2013**	5038	554,18
2003	845	92,95	**2014**	6431	707,41
2004	1016	111,76	**2015**	7475	822,25
2005	1399	153,89	**2016**	7510	826,1
2006	1784	196,24	**2017**	8488	933,68
2007	2019	222,09	**2018**	8256	908,16
2008	2275	250,25	**2019**	9162	1007,82

Source: prepared by the researcher relying on the Norwegian pension fund's website: https ://www.nbim.no/en/

(*) The used exchange rate is 1 dollar- 9.17 Norwegian krone, the exchange rates are of 10/10/2019.

The Norwegian pension fund is one of the best sovereign wealth funds in the world. Its assets' volume has reached more than 01 trillion USD, by the end of 2019. It has remarkably grown throughout the last decade. This refers to the fund's investment strategies, which are based on risks management through diversifying the portfolio assets. The fund's reputation, especially in terms of transparency, makes it amongst the welcomed investors by the states and the companies alike

Figure 1: The Norwegian Pension Fund's Assets Volume (1998-2019) **Unit:** billion USD



Source: prepared by the researcher relying on the Norwegian pension fund's website: https ://www.nbim.no/en/

The Norwegian pension fund is one of the best sovereign wealth funds in the world, but it witnessed, in the last year, a decline at the portfolio return rate by 09%, according to the fund's annual report. This refers to the international markets' deterioration, especially the petroleum one, which is one of the fund's income sources. In spite of this decrease, it still ranks the first in the pension funds' list, in terms of growing assets volume, as it's demonstrated in figure 1.

Second: The Assets Geographical Distribution

The Norwegian pension fund's assets portfolio is diversified between shares and bonds. For avoiding the risks resulting from the centralization in the single economy, the fund's investment policy relies on the geographical distribution, since it has many investments in many countries in the world, as it's demonstrated in the following table:

Table 2: The Geographical Distribution of The Norwegian Pension Fund's Assets

State	Shares	Bonds	Other	Total
USA	25,4	12	1,4	38,8
Japan	5,8	3,3	00	9,1
Great Britain	6,1	1,7	0,7	8,5
Germany	3,2	2,7	0,1	6,0
France	3,3	1,3	0,5	5,1
Switzerland	2,9	0,6	0,1	3,6
Canada	1,4	1,5	-	2,9
China	2,4	0,1	-	2,5
Australia	1,4	0,8	-	2,2
Spain	1,1	0,7	00	1,8

Source: the Norwegian pension fund's annual report of 2018.**Unit:** percentage %.

As the table above shows, we observe that there is a diversity of investments between the variable return shares and the high risk, the fixed return bonds and low risk, in addition to some other investments like the infrastructure and the economic enterprises. We also observe the geographical diversity of the fund's investments, which have reached the greatest proportion in USA; we observe that 25.4% of the investments in the USA were in the form of 2141 companies' shares, whereas the bonds proportion reached 12% of more than 2085 bonds, which demonstrate the portfolio return proportion of 13.6% by the end of 2017, but this proportion decreased to 5.47% by the end of 2018. This decrease refers to the international market deterioration, especially in the hydrocarbon field from one hand, and the decrease of the Norwegian Krone against USD from another hand. (government ponsion fund global, 2018)

Third: The Assets' Sectoral Distribution

The fund's strategy is based on investments diversification in various economic sectors, which contributes in increasing the economic growth rate. The fund invests 11.4% of its assets in health services and other important sectors. This is demonstrated in the following table:

Table 3: The Sectoral Distribution of the Norwegian Pension Fund's Assets

Sector	Rate(%)	Amount (Million Krone)	Amount(Million Dollar)
Finance	23,7	1299	142,89
Industry	12,9	708	77,88
Technology	12,6	689	75,79
Consumption Goods	11,9	653	71,83
Health care	11,4	626	68,86
Consumption Services	10,8	589	64,79
Oil and Gas	5,9	320	35,2
Basic Substances	5,0	271	29,81
Communications	3,0	163	17,93
Others	2,8	155	17,05

Source: the Norwegian pension fund's annual report of 2018.

Relying on the strategy of diversifying the assets, the fund distributes the risks on various sectors for the sake of eliminating the risks. The fund is also interested in several sectors, and the most ones are the banks and the real estates; the total investments in banks have reached 57 billions of dollars, and 32 billions of dollars in insurance companies. It is worth mentioning that the fund also invests in technology, health-care, and industry.

5. The National Pension Reserves Fund:

The national pension reserves fund is considered as a foundation for the Algerian retirement system insurance. In case of a deficit in the national pension fund, that fund will be like an emergency fund, not for funding, since funding consists of the deposited contributions in the national fund. The funder of the retired is the existent employer, who contributes through his/her contributions since the fund system is based on collecting contributions and distributing them.

5.1 Fund's Emergence:

The national pension reserves fund was created in 2006 under the complementary financial act of 2006 through the article 30, which states “the national fund of pension reserves shall be created. It is in charge of managing the financial resources assigned to, for making the reserves oriented towards contributing in the continuity of the national organization of retirement.” (Official Gazette of the Algerian Republic, 2006, p. 09). It’s mainly funded by allocating 2% of the annual petroleum fiscality. This was the national federation of the retired employees’ requirement for guaranteeing a financial reserve to protect the financial balances of the national pension fund, which suffers from increasing its expenses and the decrease of its resources.

The national pension fund gives pensions, grants, and services to approximately 2 million retired people. This number is likely to rise throughout the next years considering the retirement cancelation without the age requirement and the increase of aging people proportion in Algeria, which means that the pension reserve fund will have an important role, not only for promoting the pension fund’s resources, but also for its continuity for the next generations. This concern is behind the social security system movement towards renewing the management of the social security bodies and maintaining the financial balances of the national system of the social security, in its plan throughout the period 2011/2014, through looking for other sources instead of the paid contributions by the employers and the employees.

5.2 Fund’s Assets Management:

The article’s text has determined the way the fund’s resources use. They’re used in the state’s bonds, which indicate the state’s interest in getting fixed and safeguarded returns in the long-term. The act has also determined that the fund’s resources use must be done under the ministerial council’s ratification. (Official Gazette of the Algerian Republic, 2006, p. 09)

The fund’s financial resources consist of:

- 2% of the petroleum fiscality.
- A share of surplus within the social security funds’ treasury.
- A share of the returns of renting and selling the real estates and movable properties to the funds charged with safeguarding the retirement benefits.
- The used finances’ returns.
- The donations and wills.
- All the other resources, contributions, or the incurred subsidies.

The legislator has exempted all the fund’s revenues from taxes and fees, regardless of being invested or put in the form of reserves.

Since the fund is funded through the proportion of 2% of the petroleum fiscality's returns, we've attempted estimating its assets' volume depending on the financial acts' data since 2006 to date. This can be clarified through the following table:

Table4: The National Reserve Pension Fund's Assets Volume Estimation

	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Petroleum Fiscality	973	970,2	1628,5	1835,8	1472,4	1561,6	1615,9
The General Revenues	1802,6	1924	2786,6	3081,5	2992,4	3455,6	3820
(*)The Fund's Assets Volume Estimation	19,46	19,404	32,57	36,716	29,448	31,232	32,318
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	
Petroleum Fiscality	1577,7	1722,9	1682,5	2200	2776,2	2714,4	
The General Revenues	4218,1	4684,6	4747,4	5635,5	6714,2	6507,9	
(*)The Fund's Assets Volume Estimation	31,554	34,458	33,65	44,00	55,524	54,288	

Source: The Financial Acts from 2006 to 2018. Unit: billion DZD

The national pension reserve fund has been created in 2006. It's annually funded through the proportion of 2% of the petroleum fiscality's returns. By the end of 2018, it contained 54 billion DZD. Since the fund is funded by the petroleum fiscality's returns, its assets' volume is linked with the oil prices in the international markets. It's expected that the annually allocated petroleum fiscality share of the national pension reserve fund will be increased to more than 2% so far, and 5.2% starting from 2012.

Concerning the use of the fund's assets, they're used for facing any deficit that may occur at the level of the pension fund and the social security establishments or any disruption in the pension fund, especially for the next generations, with the view of the increasing retirement demands.

6. Results:

Algeria adopted the idea of the sovereign pension funds through creating the national pension reserve fund. However, this experience remains modest, with the view of the achieved results, compared with other international funds like the Norwegian pension fund. The important differences can be clarified in the following points:

- The Norwegian pension fund has got 10 grades as a transparency rate according to Linaburg-Maduell's scale, while there's no information about the national pension reserves fund, thus there's no transparency.

- The Norwegian pension fund invests several securities in various countries; hence its portfolio return has reached more than 15%. Thus, its assets have been increased. Whereas the pension reserves fund relies on investing the public treasury bonds with a benefit rate of no more than 5%, which makes it falls in the lost opportunity cost.

- The Norwegian pension fund is subjected to the central bank, the ministry of finance, and the parliament's strict control, which eliminates mistakes and manipulations, whereas the pension reserves fund is only subjected to the ministry of finance's control.

- The Norwegian pension fund covers the governmental needs in all sectors through its investments due to its assets' volume, whereas the Algerian pension reserves fund's assets are not sufficient for covering the retirement needs.

7. **Conclusion**:

Pension Funds, for a long period of time, depended on the employees' contributions as well as some of the subsidies introduced by the state, but this matter no longer works, especially with the increasing retirement demands and granted rewards. Thus, the sovereign pension funds have been established to become a security and insurance cover for pensions in emergency cases. The traditional investment methods, that the pension funds depended on, have also no longer cover the funds' liquidity needs. So, the idea of founding sovereign pension funds came mainly to employ the pension funds finances according to the best modern methods and the most return. The establishment of the national pension reserve fund in Algeria is considered as a step, protecting the social security funds and pension funds in Algeria; whereas investment methods are still classic and limited to the treasury bonds of the less return. In addition, the lack of transparency in the management way of this fund's assets negatively affects its reputation, then its investments; thus, the government must use more modernized methods in this fund's assets' employment, through benefitting from the experiences of the leading states in this field.

8. References :

- Bertin Delacour, C. (2009). *Les fonds souverains -Ces nouveaux acteurs de l'économie mondiale-*. Paris: Les Echos Editions.
- Blome, s., Fachinger, k., Franzen, D., Scheuenstuhl, G., & Yermo, J. (2007). *PENSION FUND REGULATION AND RISK*

MANAGEMENT:RESULTS FROM AN ALM OPTIMISATION EXERCISE. Paris: OECD.

- Blundell-Wignall, A., Yu-Wei, H., & Yermo, J. (2008). *SOVEREIGN WEALTH AND PENSION FUND ISSUES.* paris: oecd.
- BOUFLIH, N. (2011). *The role of sovereign wealth funds in financing the economies of oil countries - reality and prospects.* doctorat, algies.
- boukabous, m. (2014). *An evaluation study of sovereign wealth funds and their role in achieving economic development.* doctorat, blida 2 university, blida.
- Davis, E. P. (2000). *PENSION FUNDS, FINANCIAL INTERMEDIATION AND THE NEW FINANCIAL LANDSCAPE.* london: The Pensions Institute.
- government ponsion fund global. (2018). *annual report 2018.* norwag: nbim.
- Kjersti, F. (2007). *The Norwegian Government Petroleum Fund.* Retrieved 05 03, 2020, from https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200305_insurance_action_norway.pdf
- Official Gazette of the Algerian Republic. (2006, 07 19). Decree No. 06-04 of July 15, 2006. *Complementary Finance Law of 2006*, pp. 03-12.