Bulgarian Universal Pension Funds – Are They a Real Source for Financing the State Budget Deficit

***Jeko MILEV*[1]**

Associate Professor
UNWE, Bulgaria

Abstract: *Bulgarian pension funds have been operating for more than 15 years since the fundamental reform in the pension system in our country was implemented in 2002. For the whole period Bulgarian lev has been fixed to the euro due to the currency board system. In such an environment Bulgarian central bank cannot finance the budget deficits of the state. Bulgarian government is trying to balance the budget or to form small deficits because in a currency board monetary system eventual shortages of cash inflows should be compensated by the private sector – mainly by the institutional investors – banks, pension funds, insurance companies etc. In this situation Bulgarian pension funds are one of the cash sources that could be used. But are they a real source in the long term? In the next lines a research is done on the structure of the government bond portfolio held by Bulgarian pension funds and how these financial institutions actually support the financing of the deficits formed by the Bulgarian government for the last 10 years. The research is trying to find answers to the following questions:*

1. *Is the share of government bonds in Bulgarian universal pension fund portfolio constant or is it variable for the last 10 years.*
2. *What is the share of the Bulgarian government bonds in government bond portfolio managed by the pension funds?*
3. *Could we expect that these financial institutions will continue to finance the budget deficits of the Bulgarian government in the long term and to what extent?*

The last question is quite important having in mind that the introduction of the funded component of the pension system was accompanied by a transfer of the contribution due for the first pillar of the system (pay-as-you-go) towards the second one (fully funded with defined contributions). So part of the deficit formed into the pay-as-you-go pension system is due to this reduction of the contribution rate paid by those individuals insured into the universal pension funds.

Key words: *pension funds, investments, government bonds, regulation, economic crisis*
JEL Codes: *G11, G23, J14*

[1] jekomilev@yahoo.com

Introduction

Bulgarian pension system was significantly reformed in the year of 2000. As a result of this reform and following the recommendations of the World Bank a three-pillar pension system was established. Bulgarian demographic structure has been worsening for the last 20 years. Due to the economic slump which was a logical result after the collapse of the communist regime and the continuous lack of economic reforms, the country's birth rates dropped and the emigration processes deepened. The negative changes were extremely severe in 1990's and as a consequence the real value of pension benefits fell seriously. The continuous aging of the population has been making pay-as-you-go system unsustainable in the long term. Some populist decisions in early 1990's (such as receiving full pension rights earlier for some labor categories or getting invalidity pension without being disabled) made the situation even worse. The hyperinflation from the late 1996 and early 1997 melted the savings of all Bulgarians including pensioners. As a result the average pension amount dropped to $5 per month. In such extreme economic situation Bulgarian authorities took some decisive steps to start a pension reform whose aim was to respond to the worsening demographic structure and to support the existing PAYG system[2]. Bulgarians were given the opportunity to save and to accumulate resources for their future retirement. The long-term goal of the implemented reform is to achieve an income replacement rate at around 70% of the final salary of the insured person.

The second pillar of the system is so-called supplementary mandatory pension insurance. It takes the form of two types of pension funds: universal and occupational. All persons born after 31.12.1959 could insure themselves in a universal pension fund, while all individuals working under the first and second labor category (i.e. working in hard working conditions) could insure themselves in occupational pension fund. The third pillar of the system is supplementary voluntary pension insurance, wherein all participants choose to make contributions for supplementary benefits. The contribution rates for universal pension funds have been adjusted several times during the years. They were increased gradually from an initial rate of 2% in 2002 to 3% in 2004, 4% in 2006 and finally 5% in 2007. The contribution rates for occupational pension funds are 12% for people working under the first labor category and 7% for people working under the second labor category. Each person may choose only one universal and/or one occupational pension fund.

[2] Milev, J., 2012 Ten Years After The Start – Problems And Challenges Facing The Bulgarian Pension Funds

Insurance in a universal pension fund gives an individual the right to[3]:

- A supplementary lifetime retirement pension;
- A lump sum of up to 50% of the amount accrued in the individual account in the case of permanently reduced working capacity by more than 89.99%;
- A lump sum or deferred payment to the heirs of the deceased insured person.

Insurance in an occupational pension fund gives an individual the right to:

- A term occupational pension for early retirement;
- A lump sum of up to 50% of the amount accrued in the individual account in the case of permanently reduced working capacity by more than 89.99%;
- A lump sum or deferred payment to the heirs of the deceased insured person.

In order to better protect the funds of the insured, legislation in Bulgaria states that pension funds are separate legal entities from the pension insurance companies that manage them.

Investment regulations

The introduction of a system that functions on a fully funded principle was a serious challenge for the Bulgarian regulators[4]. The implementation of a compulsory second pillar in a country where the capital market has been just started with low liquidity and a few financial instruments suitable for investment vehicles for this type of institutions imposes many risks both on insured individuals and pension companies. The lack of traditions in pension insurance of this kind was also an obstacle with unforeseeable consequences as no one was sure whether the public would support the reform[5]. The regulators had to reflect all these constraints into the rules supposed to govern the newly formed pension insurance companies. So it was of little surprise that they gave a priority to strict investment regulation. During the first years of their existence, pension insurance companies from the second pillar of the system were obliged to invest minimum 50% of their assets into government bonds. The investment constraints concerning the universal and occupational pension funds in Bulgaria were the following:

[3] Social Security Code, 1999

[4] Nenovsky, N., Milev, J. 2014 Bulgarian Wellfare System (1989 – 2014) Evolution, Problems, Challenges

[5] Milev, J. 2015, PAYG vs. Fully funded pension system – alternative or complementary components in the pension system – the case of Bulgaria

Table 1: Investment limits concerning second pillar pension funds in Bulgaria until 2006

	Instrument	**Investment limit**
1.	Government bonds	Min. 50%
2.	Bank deposits	Max. 25%
3.	Corporate bonds	Max. 20%
4.	Corporate equities	Max. 10%
5.	Mortgage bonds	Max. 30%
6.	Municipal bonds	Max. 10%
7.	Investment property	Max. 5%
8.	Foreign instruments	Max. 20%

Source: Social security code, 2000

By adopting such investment limits the legislator was clearly trying to prevent pension companies from assuming risky investments in their initial years of operation. At the same time these rules were aiming to convince the insured individuals in the financial security of the system. The last was very important because many people suffered huge money losses from their "investments" in some financial pyramids, very popular in the mid 1990's in Bulgaria. This type of investment regulation was reasonable for the first years of operation of the Bulgarian pension funds. But it is well-known from financial theory that low-risk instruments are associated with low return. Pension funds are long term investors and they have some comparative advantages in investments on capital markets[6]. Variable income assets are more volatile in value than fixed income instruments but their yield tend to exceed that of bonds especially in the long term.

During the first years of their existence Bulgarian pension funds invested predominantly into securities issued by the Bulgarian state. So implementing this pension reform just few years after the adoption of the currency board monetary system Bulgarian state ensured a real source for financing its budget deficits. Of course this should be viewed as a secondary effect of the reform and not a main reason behind its logic. Bulgarian pension funds used to support the deficit formed within the first pillar of the pension system. It is difficult to estimate what part of this deficit is due to the implementation of the funded component within the pension system and what part of it is due to the constantly reduced contribution rate paid for the first

[6] Davis, E. Philip,1995, Pension Funds Retirement Income Security and Capital Markets. An International Perspective, Oxford University Press, UK

pay-as-you-go pension pillar. One of the most important risks that face insured individuals in a funded pension system is the inflation risk[7]. If pension funds were not able to compensate the insured for the lost purchasing power of their accumulated savings they would not serve the aim for which they were established. That's why it was very important Bulgarian pension funds to extend their investments in corporate instruments such as equities and bonds in order to increase their chances of achieving a positive real return in the long horizon. In 2006 some very important changes were introduced in pension fund investment regulations partly because of the upcoming membership in European Union in 2007. Many of the limits were relaxed and the existing minimum requirement for investments in government debt was removed.

Table 2: Current investment limits concerning second pillar pension funds in Bulgaria

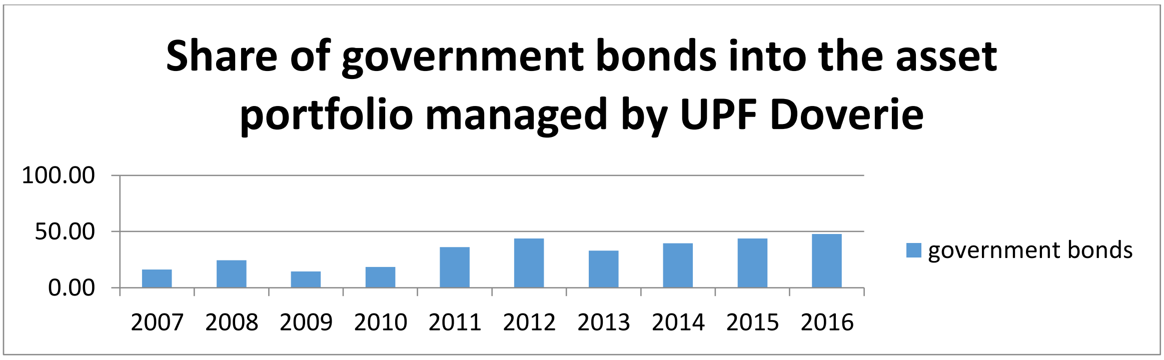
	Instrument	Investment limit
1.	Government bonds	No limit
2.	Bank deposits	Max. 25%
3.	Corporate bonds	Max. 25%
4.	Corporate equities	Max. 20%
5.	Shares and/or units issued by collective investment schemes	Max. 15%
6	Shares in special purpose investment company	Max. 5%
7.	Mortgage bonds	Max. 30%
8.	Municipal bonds	Max. 15%
9.	Investment property	Max. 5%
10.	Investments in assets denominated in currency different from lev and euro	Max. 20%

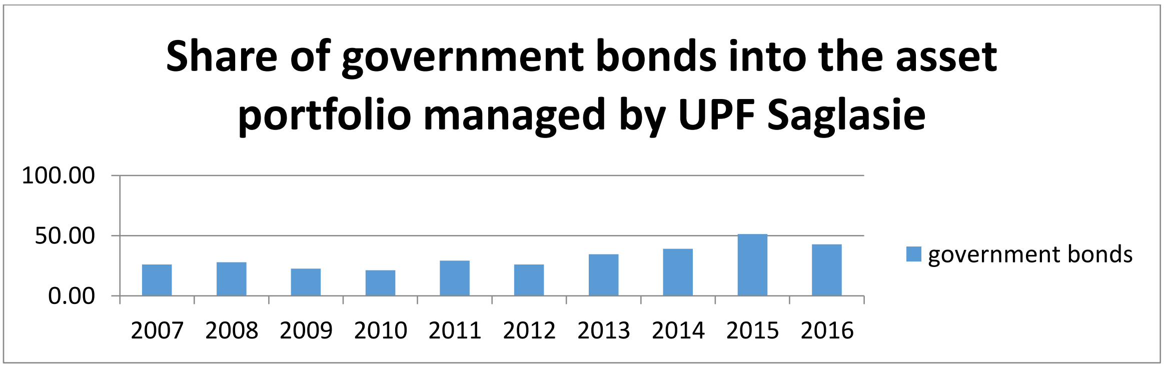
Source: Social security code, 2007

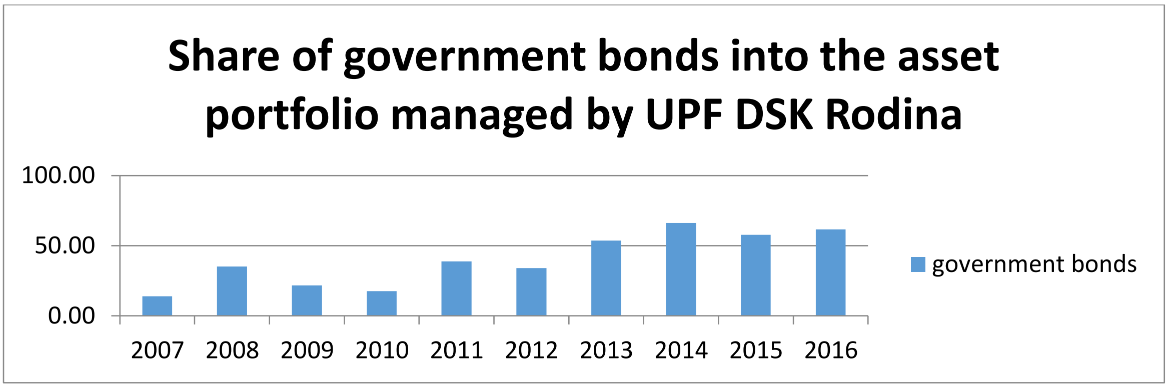
Bulgarian pension funds seriously changed the structure of their asset portfolios in the next year 2007 choosing to put the money of the insured individuals to a much greater extent into corporate securities and reducing the share of government bond portfolio. This could be viewed as a positive trend because the core idea behind the implementation of the funded pillar was to relax the financial burden on the state pension system in the long term. But if the structure of the investment portfolios of the pension funds was preserved

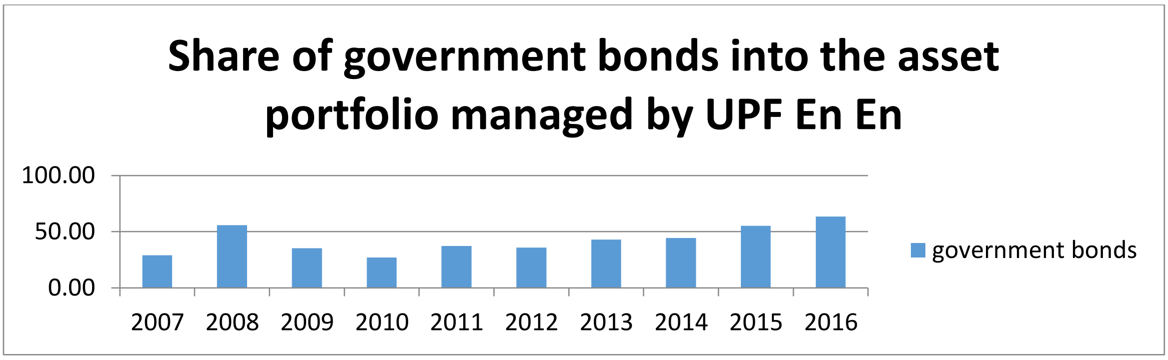
[7] Blake, D. 2006, Pension Finance, John Willey & Sons ltd, UK

in the years until the paid-out phase then the positive effects of the funds would be mitigated as a result of the massive sales of government bonds whose ultimate final payer is the government itself. Investing mainly in government bonds, pension funds could destroy the basic difference between the PAYG pension system and the fully funded one. Changing their portfolio structure in 2007 Bulgarian pension funds were able to channel a significant part of the savings of the insured individuals into the Bulgarian stock exchange. So they had their part in the formation of the financial balloon in that same year. In 2008 the world financial crises hit our country and as a result of this the main index of the Bulgarian capital market plunged by some 80%. The pension funds were not able to withstand the massive sales of corporate equities and the losses reported at that year were some double digit numbers. This negative event actually influenced the trade on the Bulgarian stock exchange for the next decade. Most of the pension funds especially those with foreign owners have been avoiding Bulgarian corporate securities. So they turn their faces towards government securities again. And as a result, instead of contributing for the development of the stock market and the increase of trade volumes with private securities, pension funds in our country started to invest heavily again in government bonds. So an interesting trend has been forming in the next years. For the whole period after 2010 there is a very clear trend for increasing the share of government securities. At the end of 2016 at about 50% of all assets of universal pension funds are government bonds.

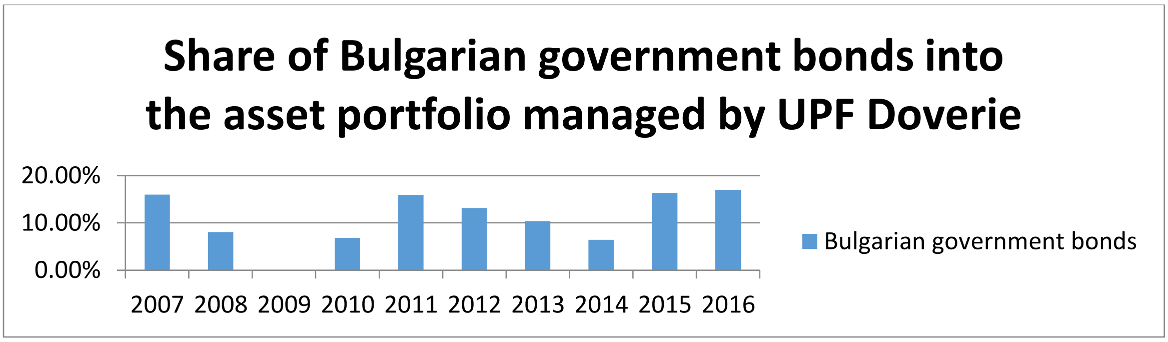


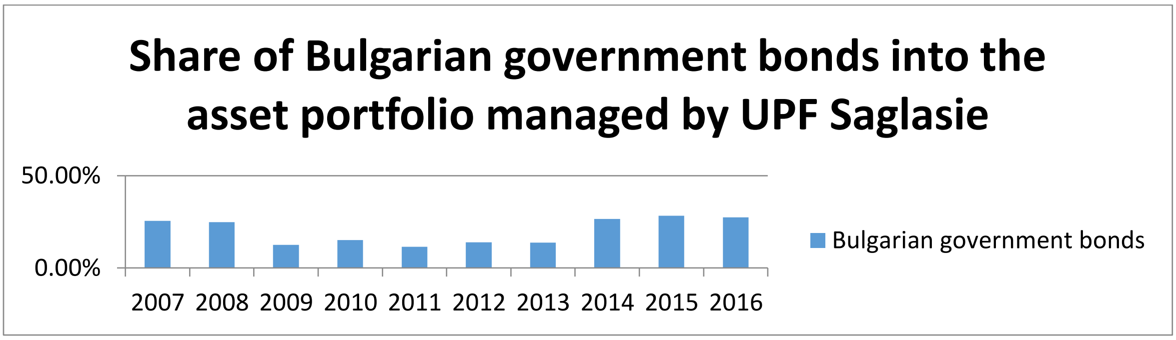


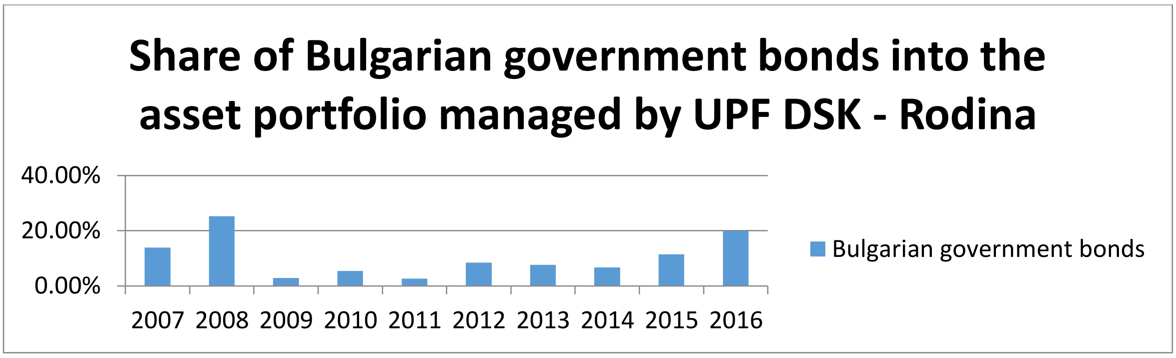


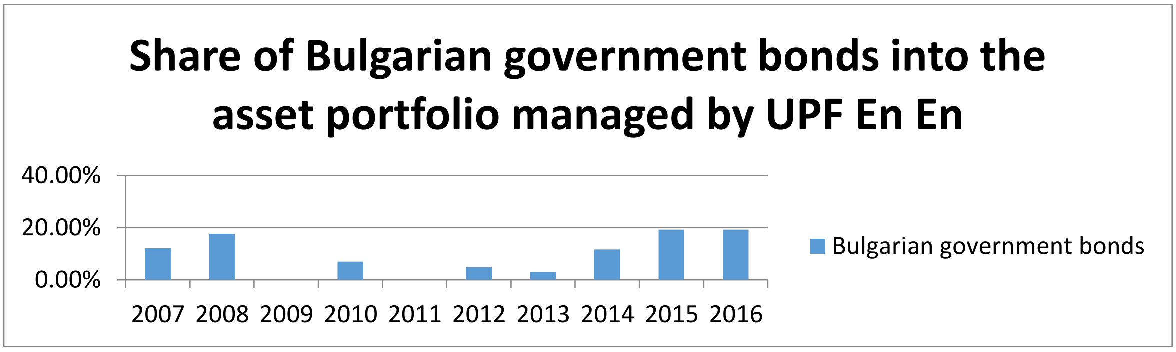


So at the start of the reform Bulgarian compulsory pension funds were obliged to invest minimum 50% of their assets into government securities and now they have structured a similar portfolio although there is no such restriction any more. The next step of the research was to see what part of the government securities portfolio is invested into Bulgarian government bonds and how the share of the Bulgarian government securities have been changed for the period. Here the trend is also an upward one. The following graphs are showing this for the same four universal pension funds:









So at around 20% of the asset portfolio is invested into Bulgarian government bonds. We can make a very clear implication here - pension funds in our country like Bulgarian government bonds and the savings of the future generation retirees are used to support the expenditures of the Bulgarian state. The fundamental question is why we have such trend? Why long term investors such as pension funds predominantly invest in securities which really have small volatility but their return is quite small as well. We can look for the answers in several directions and in the next lines we tried to focus some of them.

The first one concerns the crises of 2008. Bulgarian pension funds effectively changed the structure of their portfolios in 2007, just one year after the liberalization of the investment limits which gave the opportunity to invest much more aggressively in corporate securities. 2008 was the year of the big hit over the funded component of the

Bulgarian pension system. The losses during that single year were double digit numbers and they raised the debate whether pension insurance companies could manage the savings of the future generation pensioners. This debate continues even in 2017 nevertheless the pension institutions were able to recover these losses in the next 5 years after the crises. It was become quite apparent that although pension funds are long term investors they cannot afford to report losses of the scale of 2008. The public and the politicians are not ready to bear such negative results and the debate for reversing the reform of 2002 starts in a promptly manner. The second direction in which we may look for the answer why pension funds in Bulgaria invest so strongly in government bonds concerns the regulation which requires pension institutions in our country to reassess their assets on a daily basis and to report the results every day. In such an environment there is a natural stimulus to avoid investments which could fluctuate significantly in a short term. So although pension funds are long term investors they compete among themselves on a short term basis. They are obliged to report their return for each calendar year and no one wants to take the risk of reporting losses even for a single year. The third reason for the increasing share of government bonds is related to the coming period of paying pension benefits. The first insured individuals in universal pension funds that will receive pensions from the second pillar of the pension system are those born in 1960. They have right to obtain pension from their fund five years before the legal age for retirement. Currently the age is 61 years for women and 64 years for men. This means that women born in 1960 will have the right to get pension in 2021. Some of them will have enough resources in their universal pension fund to finance the minimum amount of pension benefit which means that they could get retired in 2016 and afterwards. So pension funds need to have liquidity to finance those benefits and government bonds are of the first choice.

What are the basic concerns about this type of portfolio structure? First, the pay-out phase is coming closer and we may expect that pension funds from net buyers of Bulgarian government bonds will turn into net sellers of these securities. This means that in the medium term there is an increasing probability the Bulgarian government to lose one important source for financing its budget deficits. All other things being equal one may expect a downward pressure on government bond prices during the pay-out phase. This means that pension funds in the country will stop being a real source for financing the state budget deficits or at least they will continue to be such a source but to a much smaller extent. Second, as pension funds are going to sell some of their holdings in government securities the stimulus for the government to reform the investment regulations will increase. The possibility of reforming the system following the polish experience is becoming serious[8]. Third, having so many Bulgarian government securities into their portfolios, Bulgarian funds put under question the funded component of the pension system. In this way the private pension institutions in the country will depend on the government to refinance or to repay its debt in order to finance their pension obligations. But in this way the difference between the pay-as-you go pension system and the fully funded one is quite dubious.

Conclusion

Bulgarian pension system was seriously reformed in the year 2000. As a result a compulsory funded component was introduced. During the first years of their operation the universal pension funds invested heavily into government bonds following the very strict investment regulations. What is interesting in Bulgarian case is that pension funds continued to invest predominantly into government bonds even after the relaxation of the very strict regulations in 2006. The reasons for this trend are several but maybe the most important one concerns the financial crises that hit our country in 2008 just two years after the new investment regulations came into force. From one hand this investment behavior effectively supports the government expenditures in times of currency board regime, fixed exchange rate and central bank which cannot fully use its monetary policy instruments. But from another hand this type of investment policy risks low investment returns in the long term and could raise continuous debates about the role of the pension funds for supporting the panting pay-as-you go pension system. The future of the pension funds in Bulgaria depends on whether they will be able to pay part of the pension due to the insured individual in amount not less than the envisaged reduction of the pension benefit received from the first pillar pay-as-you go system. The success of the pension reform depends on the future efforts made by the pension funds themselves but also on some future reforms which should make our second funded pillar much more resilient to future shocks both internal and external.

[8] In Poland the government effectively cancelled part of its debt held by the pension funds in 2014. Polish pension funds were forced to transfer the government bonds held by them into the state governed first pillar. The government just promised to pay part of the pension of the future retirees equal to the value of the transferred bonds.

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