Long-Term and Pension Savings

The Real Return

2020 Edition



Pension Savings: The Real Return 2020 Edition

A Research Report by BETTER FINANCE

COORDINATORS

Aleksandra Mączyńska Ján Šebo Ştefan Dragoş Voicu

CONTRIBUTORS

Edoardo Carlucci Lubomir Christoff Lars Christensen Michaël Deinema Laetitia Gabaut Yordanka Popova Lisbeth Grænge-Hansen Johannes Hagen José Antonio Herce

REVIEWERS

Ján Šebo Michal Mešťan Ştefan Dragoş Voicu Arnaud Houdmont Matis Joab Michal Mešťan Gregoire Naacke Dayana Nacheva Carlos Nava Guillaume Prache Joanna Rutecka-Góra Dr. Thomas Url



Acronyms

AIF	Alternative Investment Fund
AMC	Annual Management Charges
AuM	Assets under Management
BE	Belgium
BG	Bulgaria
Bln	Billion
BPETR	'Barclay's Pan-European High Yield Total Return' Index
CAC 40	'Cotation Assistée en Continu 40' Index
CMU	Capital Markets Union
DAX 30	'Deutsche Aktieindex 30' Index
DB	Defined Benefit plan
DC	Defined Contribution plan
DE	Germany
DG	Directorate General of the Commission of the European Union
DK	Denmark
DWP	United Kingdom's Governmental Agency Department for Work and Pensions
EBA	European Banking Authority
EE	Estonia
EEE	Exempt-Exempt Regime
EET	Exempt-Exempt-Tax Regime
ETF	Exchange-Traded Fund
EIOPA	European Insurance and Occupational Pensions Authority
ES	Spain
ESAs	European Supervisory Authorities
ESMA	European Securities and Markets Authority
EU	European Union
EURIBOR	Euro InterBank Offered Rate
EX	Executive Summary
FR	France
FSMA	Financial Services and Market Authority (Belgium)
FSUG	Financial Services Users Group - European Commission's Expert Group
FTSE 100	The Financial Times Stock Exchange 100 Index
FW	Foreword
GDP	Gross Domestic Product
HICP	Harmonised Indices of Consumer Prices
IBEX 35	Índice Bursátil Español 35 Index
IKZE	'Indywidualne konto zabezpieczenia emerytalnego' – Polish specific Individual
	pension savings account
IRA	United States specific Individual Retirement Account



IT	Italy
JPM	J&P Morgan Indices
KIID	Key Investor Information Document
LV	Latvia
NAV	Net Asset Value
Mln	Million
MSCI	Morgan Stanley Capital International Indices
NL	Netherlands
OECD	The Organisation for Economic Co-Operation and Development
OFT	United Kingdom's Office for Fair Trading
PAYG	Pay-As-You-Go Principle
PIP	Italian specific 'Individual Investment Plan'
PL	Poland
PRIIP(s)	Packaged Retail and Insurance-Based Investment Products
RO	Romania
S&P	Standard & Poor Indexes
SE	Sweden
SK	Slovakia
SME	Small and Medium-sized Enterprise
SPIVA	Standard & Poor Dow Jones' Indices Research Report on Active Management
Scorecard	performances
TEE	Tax-Exempt-Exempt Regime
TCR/TER	Total Cost Ratio/ Total Expense Ratio
UCITS	Undertakings for the Collective Investment of Transferable Securities
UK	United Kingdom



Pension Savings: The Real Return 2020 Edition

Country Case: Bulgaria

Executive Summary (English)

With the average public pension dangerously close to the official poverty line, Bulgarians place hope on Pillar II pensions to supplement their retirement income as early as 2021, when the first cohort of women, born in 1960, become eligible for pensions from universal pension funds. Whether these hopes will come true, depends crucially on the long-term real return pension savers receive in their accounts. Yet, long-term real returns are neither calculated, nor published in Bulgaria. This report fills in the gap of evaluating long term pension funds' performance from the viewpoint of the pension saver. The main findings are as follows:

1) Pension savers in Bulgaria receive low returns. The real return, credited to pension savers' accounts in universal pension funds in 2002-2019 was an annual average of 0.3% (MWR), while pension savers in voluntary pension funds have just broke even with 0.01% (MWR) annual average real return over the same period. Accumulating assets in Bulgarian pension funds appears to be a very long shot if not a "mission impossible".

2) Bulgarian pension funds of all types - universal, voluntary and professional - have underperformed a simple benchmark portfolio with comparable investment strategy. The benchmark portfolio is investable with a management fee of 0.2%, while fees and charges of Bulgarian pension funds exceed 1%. Thus, pension savers in Bulgaria overpay for underperformance.

3) For pension savers to count on a supplemental pension from universal pension funds, the return on their accounts needs to exceed the growth rate of the average insurable income in Bulgaria⁸⁷. In fact, the annual insurable income has grown by 4.7% annually between 2002 and 2019, exceeding 15-fold the 0.3% the real return (MWR), credited to universal pension funds accounts. This means that universal pension funds are not only frustrating the expectations for a "supplemental" pension but are actually harming pension savers by reducing their already low retirement income. Two pensions in Bulgaria are less than one.

The three-pillar pension system is failing pension savers in Bulgaria by delivering miniscule real returns and by resulting in reduction of retirement income for participants in universal pension funds.

The report concludes with policy recommendations, aimed at making the Bulgarian pension system work in the interest of pension savers.

⁸⁷ This is due to the fact that contributions to UPFs are not supplemental. They are deducted from the contributions to the State pension fund. Therefore, the state pension is reduced for those contributing to UPFs. The pension from the UPF needs to first compensate for the state pension reduction before it can produce a supplemental pension.



Резюме

Дългосрочната реална доходност, която осигурените в пенсионни фондове фактически получават по партидите си, е критично важна за тяхната способност да натрупат средства и да теглят пенсии в бъдеще. Въпреки това, тази доходност не се публикува в България. Приносът на този доклад е в оценката на дългосрочното представяне на пенсионните фондове от позициите на осигурените. Основните резултати са както следва:

1) Фактическата доходност, получавана от осигурените, трябва да се изчислява по парично претегления метод. Реалната доходност, получена от всички осигурени в универсални пенсионни фондове (УПФ) между 2002 и 2019 г. е 0.3% годишно (MWR), докато осигурените в доброволни пенсионни фондове (ДПФ) реално не са получили никаква доходност - 0.01% годишно (MWR). Натрупването на средства в пенсионни фондове в България се оказва много трудна задача, ако не и "мисия невъзможна".

2) Българските пенсионни фондове – универсални, професионални и доброволни – показват резултати, по-ниски от тези на прост бенчмарк със съпоставима инвестиционна стратегия. В портфейла-бенчмарк може да се инвестира при такса за управление от 0.2%, докато таксите на българските пенсионни фондове надвишават 1%. Така осигурените в България плащат такси над пазарните, за да получат доходност по-ниска от пазарната.

3) За да разчитат на допълнителна пенсия от УПФ, осигурените трябва да получават по партидите си доходност, надхвърляща темпа на нарастване на средния осигурителен доход за страната⁸⁸. На практика реалният темп на прираст на средния осигурителен доход е 4.7% годишно за периода 2002-2019 г. и надхвърля получената от осигурените в УПФ доходност от 0.3% годишно (MWR) повече от 15 пъти! Този факт показва, че осигуряването в УПФ уврежда интересите на осигурените, като намалява пенсионните им доходи. Пенсията от УПФ няма да да ги компенсира за намалената им държавна пенсия. Две пенсии са по-малко от една.

Тристълбовата пенсионна система в България проваля осигурените, като носи мизерна дългосрочна доходност и намалява пенсионния доход на мнозинството, осигуряващи се в УПФ.

Докладът завършва с предложения за реформиране на пенсионната система така, че държавната пенсия да не бъде намалявана за никого, а на осигурените в пенсионни фондове да се гарантира допълнителна пенсия.

Introduction

The Bulgarian pension system, introduced in 2000, rests on three pillars:

- Pillar I Mandatory, publicly managed, unfunded, defined benefit Social Security;
- Pillar II Privately managed, fully funded, "Supplementary Mandatory Pension Schemes" (SMPS);

⁸⁸ Това се дължи на факта, че вноските в УПФ не са допълнителни, а се изваждат от вноската в държавното обществено осигуряване. Съответно и държавната пенсия на осигурените в УПФ ще бъде намалена. Пенсията от УПФ трябва първо да замести намалението на държавната пенсия, преди да осигури допълнителна.



• Pillar III – Privately managed, fully funded, defined contribution, "Supplementary Voluntary Pension Schemes" (SVPS).

The aim of the 2000 pension reform was to ease the financial pressure on the public Social Security in the face of a rising old-age dependency ratio. Currently the Bulgarian pension system relies on combining the principle of intergenerational solidarity (Pillar I) with the opportunity for pension savers to boost their retirement income by participating in one or more privately managed supplementary pension schemes (Pillars II and III).

While it is mandatory for all employed and self-employed to make contributions to the pension system, it is a matter of individual choice for all, born after 1959, whether to split their mandatory contribution between Pillar I and Pillar II, or direct all of it to Pillar I instead. Those, born prior to 1960, participate in the Pillar I state pension fund only. Contributions to Pillar III pension schemes are voluntary.

Since pension insurance is mandatory, the employees covered by Pillar I pension insurance is universal. The mandatory pension insurance contribution rate is 19.8% of the gross insurable income for the majority of the working population (but not more than the maximum monthly insurable income of \leq 1,534 in 2019). It is split between employer (56%) and employee (44%), while the self-employed are liable for the full contribution.

The contribution rate is higher for the employed in strenuous and hazardous conditions - "category I and category II workers", as well as for those employed in the national security services, who are eligible for early retirement.

Those born after 1959 are eligible for the two schemes under Pillar II: universal pension funds (UPF) and professional pension funds (PPF). Participation in universal pension funds was mandatory between 2002 and 2015, but it has been optional since. Universal pension funds participants can opt out of those funds and transfer their pension insurance to the Pillar I state pension fund up to five years before reaching the statutory retirement age.

The contribution to the universal pension funds is set by law at 5% of insurable income (up to the maximum insurable income) and is split between the employer and the employee. The contribution to the universal pension funds is not supplementary. It is rather deducted from the mandatory pension insurance contribution of 19.8% of the insurable income. Those participating in universal pension funds in essence split their contribution between the state pension fund (14.8% of insurable income) and the universal pension fund of their choice (5% of insurable income). Thus, the Pillar II universal pension funds are not "supplementary" but rather represent partial privatization of the state pension reduced in proportion to the lower level of contributions to the state pension funds they have made.

Eligible for participating in the professional pension funds are those, employed as "category I and category II" workers. Their participation is non-contributory, meaning that the contributions are entirely at the expense of the employer. They are eligible to receive a fixed term pension from the professional pension funds for the period between their early retirement and the statutory pension age. They too have the right to opt out from the professional pension funds up to five years before reaching the statutory retirement age.



There are two pension schemes under Pillar III, voluntary pension funds and voluntary professional pension funds. All persons of at least 16 years of age are eligible to contribute to a voluntary pension fund. Voluntary professional pension funds are open only to participants of Pillar II professional pension funds. The main features of the Bulgarian pension system are summarized in the table below:

National Social Insurance Institute		on Commission				
<u>PILLAR I</u>	<u>PILLAR I</u>	l	<u>PILLA</u>	<u>PILLAR III</u>		
State Pension		Funded Pe	nsions			
Mandatory	Mandatory / Possibil	ity to opt out	Volun	tary		
Management type: Public		Management ty	pe: Private			
Pay-as-you-go		Fully fun	ded			
Defined Benefit	Defir	ned Contribution / I	ndividual Accounts			
State Pension "Fund"	Universal Pension Funds	Professional Pension Funds	Voluntary Pension Funds	Voluntary Professional Pension Funds		
Pensions are granted at statutory pension age, provided the length of service requirement is met. Possibility to draw a reduced pension one year before the statutory pension age.	Pensions at statutory pension age. Possibility to draw a pension up to five years before the statutory pension age provided funds in the account are sufficient for granting a pension, equal to the minimal state pension.	Fixed term pension for the period between the reduced pension age for eligible workers and the statutory pension age.	Pensions at statutory pension age. Possibility to draw a pension up to five years before the statutory pension age.	Fixed term pensions at age 60 or five years earlier if provided in the collective social insurance contract.		
Quick facts:						
Number of old-age pensioners*: 1,522,661	Accounts光: 3,805,545	Accounts光: 297,186	Accounts册: 640,105	Accounts: 8,653		
Average old-age pension*: €208 / Official poverty line: €186	Funds/ Administrators 光: 9	Funds/ Administrators	Funds/ Administrators	Funds/ Administrators		
Average salary (gross)**: €643	AUM 光 : € 6,755 mil.	AUM╫: € 615 mil.	AUM 光 : € 610 mil.	AUM╫: € 8.4 mil.		
Average replacement ratio***: 37 % Sources:	N/A	N/A	N/A	N/A		

TABLE BG1 Overview of the Bulgarian pension system (2019)

<u>Sources</u>:

*) Old age pensions only. National Social Security Institute

**) National Statistical Institute

***) Eurostat

 \mathscr{H}) Financial Supervision Commission

The performance of the two major pension vehicles (universal and voluntary pension funds) is presented in Table 2 and Figure BG3.



		i2. Annualized ersal pension f	ghted Returns Voluntary pension funds			
Holding period	Gross Returns	Nominal Net Returns	Real Net Returns	Gross Returns	Nominal Net Returns	Real Net Returns
1 year (2019)	5.9%	4.7%	1.7%	7.1%	6.1%	3.0%
3 years (2017-2019)	2.6%	1.4%	-0.9%	3.2%	2.4%	0.1%
7 years (2013-2019)	3.6%	2.1%	1.7%	4.4%	3.5%	3.1%
10 years (2010-2019)	3.9%	2.2%	1.1%	4.5%	3.6%	2.4%
Since 2002	4.1%	1.6%	-0.9%	4.4%	3.0%	-0.1%

<u>Sources</u>: BETTER FINANCE calculations based on FSC data and Eurostat

Figure BG3 depicts the daily performance of both the benchmark portfolio and the pension funds from 1 July 2004 to 31 December 2019.

220% 200% 180% 160% 140% 120% 100% 10/12/2014 27/4/2015 3/9/2015 15/1/2016 30/5/2016 6/10/2016 14.02.17 28/7/2005 6/12/2005 6/12/2006 8/1/2007 17/5/2007 5/2/2008 17/6/2008 9/3/2009 16/7/2009 16/7/2009 7/4/2010 16/8/2010 16/8/2010 16/8/2010 16/8/2010 16/8/2010 16/8/2010 16/8/2010 16/8/2010 14/9/2011 14/9/2011 22/1/2012 22/1/2012 14/9/2011 14/9/2011 23/1/2012 22/2012 22 10/10/2012 20/2/2013 3/7/2013 8/11/2013 24/3/2014 4/8/2014 28/6/2017 2/11/2017 15/3/2018 20/7/2018 6/11/2018 5/4/2019 20/8/2019 9/11/2004 18/3/2005 Benchmark portfolio — VOLIDEX — — UNIDEX 🗕 HICP

Figure BG3. Pension funds' performance vs. Benchmark (1.07.2004-31.12.2019)

Sources: BETTER FINANCE calculations based on

1. Financial Supervisory Commission, Unit values of pension funds

2. STOXX Europe 600 Index

3. S&P Eurozone Sovereign Bond Index

The different lines depict the performance of the voluntary and universal pension fund indexes. The darkest line represents the benchmark portfolio, constructed as a blend of 35% of the STOXX Europe 600 Index and 65% S&P Eurozone Sovereign Bond Index, in line with the investment constraints, imposed on pension fund management by law. It is to be noted that the Benchmark portfolio is investable as there are ETFs that replicate the performance of both indexes, namely iShares STOXX Europe 600 UCITS ETF and iShares Euro Government Bond 7-10yr UCITS ETF.



As is evident, all types of pension vehicles in Bulgaria underperform the market, represented by a simple, investable portfolio over longer periods at, as we will see below, higher fees and charges. Bulgarian pension savers overpay for underperformance.

Pension vehicles

The privately managed pension funds in Bulgaria come in four varieties. Universal and professional pension funds fall under Pillar II, while Pillar III consists of voluntary pension funds and voluntary professional pension funds.

Pension funds are managed by specially licensed, privately owned and operated pension companies. As of the end of 2019, a total of nine companies are licensed to manage pension funds in Bulgaria. They are subject to various governance and capital requirements.

Each pension company is allowed to manage a single fund of each type: universal, professional, voluntary and voluntary professional. As of end 2019, one company offers all four pension fund vehicles and the remaining eight companies offer three pension fund types each (universal, professional and voluntary).

The insurance industry in Bulgaria is excluded from the mandatory pension savings and investment. While purchasers of Life Insurance enjoy the same tax advantage as investing in a voluntary pension fund (investment of up to 10 % of the annual income is tax free), Life insurance does not play any significant role in the pension system in Bulgaria.

Universal pension funds

The universal pension funds are by far the most important pension vehicle in Bulgaria with over 3.8 million individual accounts and $\in 6.7$ billion⁸⁹ in assets under management (as of end 2019). Participation in the universal funds was mandatory for employees born after 1959 until August 2015 and has been optional since for those who participated at least one year in a universal pension fund. Participation in universal pension funds is tied to the employment status of the insured and both the employee and the employer are required to make contributions. Universal pension funds operate at national level and not at company or industry level.

Contributions

Contributions to the universal funds are set by law at 5% of insurable income⁹⁰, which in 2019 was capped at BGN 3000 ($\leq 1,534$) per month and remains the same in 2020.

Minimum Returns

Pension companies are obliged to manage assets in such a way as to achieve a minimum nominal return. The minimum nominal return is set quarterly by the regulator, the Financial Supervision Commission, on the basis of the average return, achieved by all pension companies over a period of the preceding

⁹⁰ The 5 % statutory contribution to universal pension funds is split between the employee (2.2 %) and the employer (2.8 %).

⁸⁹ For the conversion of the Bulgarian Lev (BGN) to euros, the official fixed exchange rate of € 1 = BGN 1.95583 is being used throughout this report.



24 months. The minimum return is equal to either 60% of the average for all universal pension funds, or 300 bp (basis points) below the average, whichever is smaller.

In case a fund's actual performance is weaker than the minimum nominal return determined by the regulator, the pension company is obliged to top up individual pension accounts to the extent of the shortage. The source for this obligatory top-up is the pension companies' own reserves, which should be maintained at between 1% and 3% of assets under management.

Another source of funds could be reserves accumulated within the respective pension fund. These reserves are accumulated when the actual fund's performance exceeds the average industry performance for the respective period by either 40% or 300 bp, whichever is larger.

Reserves

Pension companies are mandated to maintain pension reserves to cover the actuarial longevity risk when lifetime pensions are offered. The regulator has decreed however, that these reserves must be set aside one year after the first lifetime pension from the respective fund is extended. Since such pensions are not yet being paid out of universal funds, pension companies have not made provisions for the longevity risk.

Distribution

Participants in universal pension funds become eligible for supplementary pensions at the statutory retirement age. However, universal pension plan participants can start drawing on their account five years prior to reaching full pension age, provided their accumulated assets are sufficient to ensure a lifetime pension of at least the state-mandated minimum pension.

In the case of a premature death of an insured member or retiree, the universal pension fund distributes the balance of the account to his or her heirs either as a lump sum or as scheduled withdrawals. Should there be no heirs, the balance of the account is transferred to the universal fund's reserves.

Paying out lifetime pensions contradicts the requirement to preserve individual accounts after retirement. This is an issue for urgent legislative intervention, as the first cohorts of women born in 1960 will start drawing pensions from the universal pension funds in 2021. Draft legislation to this effect exists, but it is not yet on the agenda as of the time of this writing.

Professional pension funds

Only those employees who work under strenuous and hazardous conditions such as miners, air pilots and similar are eligible to participate in professional pension funds. People working under these conditions are entitled to an early retirement. The purpose of professional pension funds is limited to ensuring pensions for a prescribed period of time until those employees become eligible to draw pensions from the universal pension funds. With €615 million in assets under management and well over 308 thousand participants (as of end 2019), professional pension funds play a more limited role in the Bulgarian pension system.



Contributions

Professional pension funds are non-contributory. Only employers pay into the funds.

Minimum returns

The quarterly nominal returns are subject to the same floor as universal pension funds are – either 60% of the average return for the previous 24 months or 300 bp below the average return, whichever is smaller.

Reserves

The same provisions as for universal pension funds apply.

Distribution

Employees, eligible for a pension from a professional pension fund, are normally promised a fixed-term pension covering the period starting from the date of their early retirement to the date they achieve the statutory retirement age.

Should a person who has been insured through a professional pension fund fail to meet the eligibility criteria for early retirement, he or she has a choice at the time of reaching the regular retirement age to:

- either withdraw his or her balance from the professional pension fund as a lump sum,
- or transfer the balance of his professional fund account to his or her universal pension fund account.

Similar to inheritance rights for universal pension funds, the heirs of a deceased insured or retired person inherit the account balance and may choose to receive the entitlement as either a lump sum or as a scheduled withdrawal. Contrary to the rule for universal pension funds, should a deceased insured or retiree leave no heirs, the remaining balance on the account is transferred to the state budget.

Voluntary pension funds

Voluntary pension funds form the core of pillar III of the Bulgarian pension system. Nine voluntary pension funds operating in Bulgaria manage 640 thousand individual accounts and €610 million in assets under management (as of end 2019). Any person 16 years of age or older may contribute to a voluntary pension fund. Contributions are either personal or made by a third party (such as an employer) on behalf of the insured.

Minimum returns

The performance of voluntary pension funds is not subject to a minimum return obligation.

Reserves

As a matter of legal obligation, where voluntary pension funds promise lifetime pensions, they are required to maintain pension reserves to cover the longevity risk. As a matter of practice, currently



voluntary pension funds have accumulated such reserves only for the limited number of lifetime pension contracts currently extended.

Distributions

Participants in voluntary pension funds have a variety of choices in drawing on their accounts.

One option is for participants to withdraw funds accumulated through their own contributions at any time prior to reaching the statutory retirement age. This right does not apply to funds accumulated as a result of any employers' contributions.

Another option gives them the right to a lifetime pension upon meeting the age and length of service requirements for a public pension. However, participants may choose to draw a lifetime pension up to five years prior to meeting these eligibility criteria.

Lastly, participants can choose between drawing the balance from their account as a lump sum or a scheduled withdrawal over a certain period of time.

The heirs of an insured or retired person who leaves a balance in his or her account at the time of death, are entitled to the balance as either a lump sum or to scheduled withdrawals over a specified period of time. Should there be no heirs the balance is transferred to the voluntary pension fund reserves.

Voluntary professional pension funds

With only one voluntary professional fund with 8,653 participants and €8.4 mln. in assets under management as of end-2019, this vehicle is a rather insignificant part of the Bulgarian pension system and will be dropped from the real return analysis. Only participants in professional pension schemes can contribute to voluntary professional pension funds. Their employers may elect to make contributions on behalf of employees too.

To meet their future obligations, pension companies set aside technical reserves. The technical reserves need to be maintained at any moment in time and invested appropriately to ensure liquidity.

Participants acquire a right to a term pension from a voluntary professional fund upon reaching the age of 60 for both men and women. They have the choice to either a lump sum or scheduled withdrawals.

The heirs of a deceased insured or retiree are entitled to receive the remaining balance on the account as either a lump sum or scheduled withdrawals.

Asset Allocation (Investment Strategy)

Pension companies in Bulgaria are allowed to manage only one pension fund (one portfolio) per category (universal, professional, voluntary or voluntary professional). Thus, they are prevented by law from assessing the suitability and appropriateness of any pension fund to the insured. Every client of the respective type of fund, offered by a pension company, receives the same portfolio irrespective of his or her time horizon, investment objectives, risk tolerance, financial circumstances or the ability to bear losses.

At the same time pension funds' portfolios are subject to investment restrictions. Universal and professional funds' investments in 2019 were limited to no more than 60% investments in dynamic assets and no less than 40% in fixed income and cash equivalents – a slightly more relaxed investment



restrictions in comparison to previous years, when no more than 45% could be invested in dynamic assets.

Specifically, the limits were as follows:

- No more than 25% in equities
- No more than 20% in collective investment schemes such as mutual funds and ETFs. Since the investment focus of these collective schemes is not defined, theoretically they can be invested only in equites;
- No more than 10% in REITs (Real Estate Investment Trusts) and
- No more than 5% directly in investment property⁹¹.

Investment restrictions for voluntary pension funds are more relaxed and focus primarily on limiting concentration and exchange rate risk.

We report the asset allocation per major pension category in Table BG4. In the three most recent years universal and professional pension funds hold about 45-56% in government bonds; 10-13 % in corporate and municipal fixed income instruments and about 21-31% in equities and collective investment schemes.

Voluntary pension funds hold on average 24-36% in equities and collective investment schemes with 38-56% in government bonds and another 8-14% in corporate and municipal fixed income instruments.

Table	BG4. As	set All	ocation	of the	main p	ension	vehicle	es in Bu	lgaria			
Universal Pension Funds	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cash & Cash Equivalents	27.1%	30.7%	26.9%	26.2%	20.6%	21.1%	12.1%	12.5%	15.9%	7.0%	10.6%	9.2%
Government Bonds	32.7%	23.0%	21.6%	30.9%	35.4%	35.0%	41.6%	44.8%	44.8%	48.9%	47.4%	56.8%
Corporate and Municipal Bonds	24.7%	23.7%	23.4%	21.9%	23.8%	19.6%	16.2%	12.4%	11.2%	13.0%	10.1%	10.2%
Equity & Mutual Funds	11.5%	18.7%	23.5%	16.1%	16.2%	20.7%	26.8%	27.3%	25.5%	28.5%	29.2%	21.4%
Real Estate	3.9%	3.9%	4.5%	4.8%	4.1%	3.6%	3.3%	3.0%	2.7%	2.5%	2.7%	2.4%
Voluntary Pension Funds	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cash & Cash Equivalents	20.7%	29.8%	19.8%	18.8%	16.0%	13.2%	9.1%	10.5%	12.5%	7.2%	9.1%	7.3%
Government Bonds	23.1%	13.3%	13.6%	23.1%	26.9%	29.7%	30.3%	35.6%	37.6%	38.3%	42.6%	55.6%
Corporate and Municipal Bonds	25.0%	25.7%	28.0%	24.9%	25.2%	20.7%	18.2%	13.8%	12.1%	13.8%	7.5%	8.5%
Equity & Mutual Funds	16.8%	20.1%	27.7%	22.1%	22.9%	28.0%	35.0%	33.5%	31.8%	35.7%	36.2%	24.5%
Real Estate	14.4%	11.1%	10.9%	11.1%	9.0%	8.4%	7.4%	6.6%	6.1%	5.0%	4.6%	4.1%

Source: BETTER FINANCE calculations based on data published by the Financial Supervision Commission

Thus, pension funds in Bulgaria are managed quite conservatively, especially considering the fact that they are largely in accumulation phase. Conservative strategies imply lower expected returns going forward, which makes it less likely for pension savers to enjoy an adequate income in retirement. The asset allocation of all pension funds in Bulgaria, including the post-crisis period, and the decision to maintain less exposure to riskier asset classes explains why their investments did not fully participate in stock market recoveries that have occurred since 2009 and their long term performance still lags the market return as shown on Figure BG3 above. While conservative portfolios dampen their volatility, they expose the insured to inflation risk and lower real retirement incomes.

⁹¹ Art. 176-178. Social Insurance Code. <u>http://noi.bg/images/bg/legislation/Codes/KCO.pdf</u>



Charges⁹²

Participants in pension funds are subject to fees and charges, defined and capped by law. Three types of fees and charges apply:

- Entry fee on pension fund contributions;
- Annual investment management fees on account balances (or the annual return in the case of voluntary funds);
- Transfer fees.

The law caps those fees and charges as follows (as of end 2019):

Table BG5. Legal caps on fees and charges in 2019							
Fees	Universal/ Professional Pension Funds	Voluntary Pension Funds					
Entry fee	3.75%	≤ 7%					
Management fee	0.75%	<u>≤ 10 %^[1]</u>					
Transfer fee	€ 5.11	€ 10.22					

Source: Social Insurance Code, ^[1] Up to 10% of the positive nominal return to the fund/ individual account.

Pension companies are banned from charging any fees other than the ones listed. The entry fee applies to each contribution, while the management fee applies to the balance of the account (or the annual return in the case of voluntary funds). The transfer fee is charged when a participant initiates a transfer of his or her account to a different pension management company. Only one transfer of the account per year is permitted. Companies managing voluntary pension funds are allowed to collect several other administrative fees, as long as those are explicitly allowed and specified in the law.

In practice, most of the pension companies managing universal and professional funds charge the maximum loads and fees, but some offer discounts to long-term participants.

The entry fees charged by pension companies for voluntary pension funds vary more widely and are typically between 2.5 and 4.5%. The amount of the entry fee varies according to the amount of the contribution or the number of employees signed up to a voluntary pension fund by their employer. The majority of pension companies charge the maximum allowed 10% of returns in investment management fees. Four companies charge lower investment management fees: one charges 4.5%, the other charges 7% and the remaining two, including the largest company, charge 9% on positive returns.

Administrative charges are normally one-time and nominal.

A gradual reduction of fees and charges for the Pillar II funds was mandated by law⁹³. The reduction was fully phased in 2019 as follows:

⁹² Data on charges are collected from individual pension companies' Internal Rules and Regulations for managing pension funds. These documents are publicly accessible on the web page of each pension company.

⁹³ National Assembly, (2015), Social Insurance Code, State Gazette, No. 61, 11.08.2015 (In Bulgarian)



Table BG6. Pension funds f	ees and charges fo	r Universal/ Profes	ssional Funds (20	016-2019)
	2016	2017	2018	2019
Front Load	4.50%	4.25%	4.00%	3.75%
Management fee	0.90%	0.85%	0.80%	0.75%
Source: Social Insurance Code				

As reported on Figures BG11 and BG12 below, fees and charges have reduced the yield to pension savers by 1.9% annual average for universal pension funds and 1.3 % for voluntary pension funds over the 2002-2019 period.

Taxation - EEE

Individual contributions to pension funds are income tax free. A contribution to voluntary pension funds of up to 10% of annual taxable income is tax-free, while any additional contributions can be made from after-tax income. Investment income accrues tax-free to individual pension accounts. Pension payments are also free of tax.

Employers deduct contributions to pension funds of up to BGN 60 (€30.68) per employee per month from their annual revenue before taxes. Pension companies' services and revenues are free from VAT and tax respectively.

The tax regime of the pension companies and pension funds does not drive a wedge between nominal and real returns in Bulgaria.

Pension Returns

Pension funds returns can be calculated using one of two methods: time-weighted or money-weighted returns⁹⁴. While time-weighted returns are useful when comparing pension funds' performance to a benchmark, it is only money-weighted returns that matter to participants, since their accumulated capital before retirement depends on their contributions, the length of the contributing period and the average money-weighted return earned on their accounts.

We reported the 1, 3-, 7-, and 10-year time weighted nominal and real returns in the introduction and observed that all types of pension funds in Bulgaria underperform a simple investable benchmark portfolio. In this section, we report both the annual nominal and real money-weighted returns (2002-2019) and the returns over 1, 3-, 7-, 10- year trailing returns and since 2002 for the two main pension vehicles: universal and voluntary funds.

Money-weighted Returns

The pension savers' annual returns in the two dominant pension vehicles in Bulgaria: universal and voluntary pension funds, are reported in Tables BG7 and BG8.

⁹⁴ Feibel, Bruce J., (2003), "Investment Performance Measurement", John Wiley & Sons, Inc., Hoboken, New Jersey, p. 53 **129** | P a g e



Table BG7.	. Universal Pensic	on Funds (l	JPF) Money-V	Veighted Re	eturns
	Nominal Return (Gross of Fees)	Fees and charges ***	Nominal Return (Net of Fees)	HICP (Annual Average)	Real Return (Net of Fees)
2002*	9.5%	11.5%	-2.0%	3.0%	-4.96%
2003	7.4%	5.8%	1.5%	6.9%	-5.37%
2004	13.6%	5.8%	7.8%	4.3%	3.46%
2005	8.2%	4.1%	4.1%	7.1%	-2.98%
2006	9.1%	3.5%	5.5%	5.7%	-0.20%
2007	16.2%	3.8%	12.4%	11.8%	0.59%
2008	-19.3%	2.5%	-21.8%	4.6%	-26.42%
2009	9.3%	3.0%	6.2%	1.6%	4.61%
2010	6.2%	2.5%	3.7%	4.4%	-0.65%
2011	0.6%	2.1%	-1.6%	1.9%	-3.47%
2012	8.6%	2.1%	6.5%	2.8%	3.74%
2013	5.9%	1.9%	3.9%	-0.9%	4.80%
2014	7.0%	1.8%	5.2%	-2.0%	7.23%
2015	1.9%	1.7%	0.2%	-0.9%	1.06%
2016	3.6%	1.5%	2.1%	-0.4%	2.51%
2017	6.6%	1.4%	5.2%	1.9%	3.33%
2018	-4.2%	1.2%	-5.4%	2.1%	-7.53%
2019	6.2%	1.3%	5.0%	3.1%	1.84%
AVG (2002-2019)	3.7%	1.9%	1.9%	1.6%	0.34%

*Universal Pension Funds were launched in April 2002

***No official statistics for 2002 and prior to 2002 - estimation for these years

Source: BETTER FINANCE calculations based on data published by the Financial Supervisory Commission

Unfortunately, data for professional pension funds (PPF) is no longer publicly available and the authors could not update it.

Table BG8. Volu	untary Pensior	n Funds (VPF)	Money-Weigh	ted Returns	
	Nominal Return (Gross of Fees)	Fees and charges**	Nominal Return (Net of Fees)	Inflation (Annual Average HIPC)	Real Returns (Net of Fees)
2002	9.2%	5.0%	4.2%	3.9%	0.3%
2003	9.9%	2.8%	7.1%	6.0%	1.0%
2004	12.0%	2.6%	9.4%	4.2%	5.2%
2005	9.6%	2.3%	7.3%	7.4%	0.0%
2006	7.5%	1.9%	5.6%	6.0%	-0.4%
2007	17.9%	3.2%	14.8%	11.9%	2.8%
2008	-25.1%	0.5%	-25.6%	5.0%	-30.7%
2009	8.3%	1.3%	6.9%	1.7%	5.2%
2010	5.7%	1.0%	4.7%	4.5%	0.2%
2011	-0.6%	0.4%	-1.0%	2.0%	-3.0%
2012	8.9%	1.2%	7.7%	2.9%	4.8%
2013	6.9%	1.0%	6.0%	-0.9%	6.9%



AVG (2002- 2019)	4.1%	1.3%	2.8%	2.8%	0.012%
2019	7.3%	1.0%	6.3%	3.2%	3.1%
2018	-4.7%	0.3%	-5.1%	2.1%	-7.2%
2017	7.9%	1.2%	6.8%	1.9%	4.9%
2016	5.6%	0.8%	4.8%	-0.5%	5.3%
2015	2.0%	0.6%	1.4%	-0.9%	2.3%
2014	7.1%	1.1%	6.1%	-2.1%	8.1%

*Voluntary Pension Funds existed prior to 2002 but there are no official statistics available on the electronic site of the Financial Supervision Comission (FSC)

**No official statistics for 2002 and prior to 2002 - estimation for these years

Source: BETTER FINANCE calculations based on data published by the Financial Supervisory Commission

Note: The returns (and average returns) are calculated as the Money-Weighted Internal Rate of Returns; therefore, the average will differ from a geometric average.

Pension funds returns vs. pension savers' nominal and real returns by holding period are reported in the following tables:

Table BG9. Pension Funds and Pension Savers' Returns (UPF) - MWR						
	2019	2017-2019	2013-2019	2010-2019	2002-2019	
Pension funds' Nominal Returns (Gross of fees)	6.2%	2.8%	3.5%	3.8%	3.7%	
Pension Savers' Nominal Returns (Net of fees)	5.0%	1.5%	2.0%	2.2%	1.9%	
Pension Savers' Real Returns (Net of fees)	1.8%	-0.9%	1.1%	1.0%	0.3%	
Source: BETTER FINANCE calculati	ons based	on data published	d by the Financial	Supervisory Cor	nmission	
Table BG10. Pens	ion Fund	ls and Pension	Savers' Return	is (VPF) - MW	′R	
	2019	2017-2019	2013-2019	2010-2019	2002-2019	
Pension funds' Nominal Returns (Gross of fees)	7.3%	3.3%	4.3%	4.4%	4.1%	
Pension Savers' Nominal Returns (Net of fees)	6.3%	2.5%	3.5%	3.6%	2.8%	
Pension Savers' Real Returns (Net of fees)	3.1%	0.0%	2.8%	2.3%	0.0%	

Source: BETTER FINANCE calculations based on data published by the Financial Supervisory Commission

The breakdown of pension savers' returns into real returns, inflation and fees and charges is illustrated on Figures BG11 and BG12.



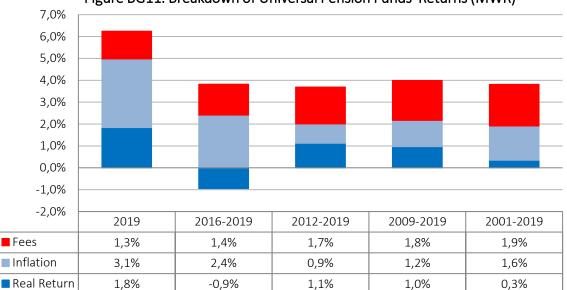
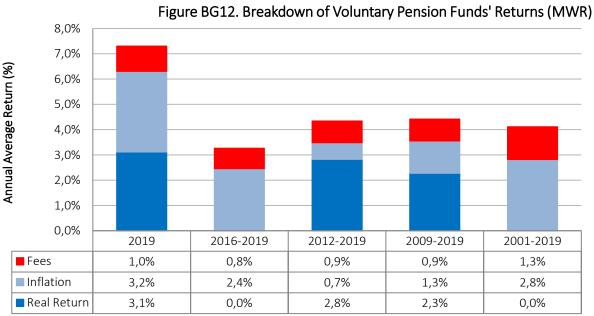


Figure BG11. Breakdown of Universal Pension Funds' Returns (MWR)

<u>Source</u>: Table BG9

Average Annual Return (%)



<u>Source</u>: Table BG10

While in 2002-2019 pension savers in voluntary pension funds just broke even with 0% real average annual return, pension savers' accounts in universal pension funds were credited with a real average annual return of 0.3%. This result is grossly insufficient for pension savers to actually receive a "supplementary" pension from UPFs. If the past performance over the last 18 years persists, the great majority of those insured in universal pension funds, will see their retirement income reduced below the full state pension.

The last point requires some elaboration. While contributions to voluntary pension funds are truly additional to the mandatory pension contributions, the contribution to a universal pension fund is



financed at the expense of the contribution to the State Pension Fund⁹⁵. This means that while the mandatory pension contribution is the same for all insured, those who participate in universal pension funds, divert about a quarter of their mandatory contribution to an UPF. Their contribution to the State Pension Fund, therefore, is smaller compared to the contribution of those insured who have opted out of universal pension funds. Consequently, those who contribute to an UPF will be entitled to a proportionately reduced state pension, compared to those who do not participate in a UPF.

Therefore, for an UPF pension to be truly "supplemental", it would need to first offset the reduction of the state pension. This raises the question under what circumstances an expected "supplemental" pension from an UPF will be able to offset exactly the reduction of the state pension?

The author has researched this question elsewhere⁹⁶ and substantiated the conclusion that the necessary and sufficient condition an UPF pension to fully offset the reduction of the state pension is for the actual real return on an UPF account to exceed the annual real rate of growth of the average insurable income over the entire contributory period. In fact, as illustrated on Figure BG12 below, the situation in 2002-2019 has been the exact opposite – the average annual rate of growth of the insurable income in Bulgaria has consistently outpaced the returns, received by pension savers in UPFs.

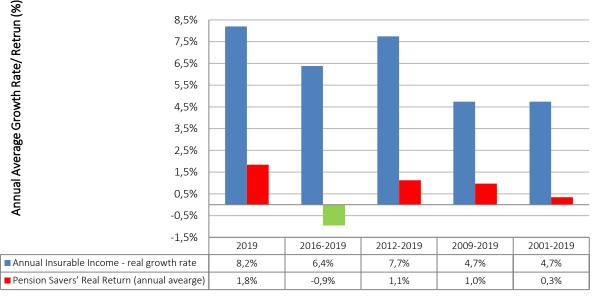


Figure BG13. Real annual insurable income real growth rate vs. UPF pension savers' real return

<u>Source</u>: Table BG9 and data from the National Insurance Institute

Going forward, the National Social Insurance Institute expects the real growth of the average insurable income in Bulgaria to slow down to 3.2% per annum in real terms⁹⁷. Under this assumption, an insured person, who has contributed to an UPF since 2002 and will retire in 2042 after 40 years of uninterrupted

⁹⁵ Second Pillar contributions are financed at the expense of the first pillar in all Eastern European countries, except Estonia, which introduced an additional contribution for second pillar funds. See Krzyzak, Krystyna. (2018). "CEE: A system in flux". In IPE, January 2018. <u>https://www.ipe.com/pensions/country-reports/cee/cee-a-system-in-flux/10022463.article</u>

⁹⁶ Christoff, Lubomir. (2016). "Pension (In)Adequacy in Bulgaria") (In Bulgarian - August 17, 2016). Available at SSRN: https://ssrn.com/abstract=2825011

 ⁹⁷ National Social Security Institute. (2019). "Actuarial Report 2019." Sofia. (In Bulgarian).
p. 31, Table 6 and p. 38, Table 8. <u>https://noi.bg/aboutbg/st/analyses/415-actuerreports</u>



contributions, will need to receive a 3.9%⁹⁸ real annual rate of return between 2020 and 2041 in order for his "supplemental" UPF pension to just offset the reduction of his state pension. The required 3.9% real return is not only far in excess of the realized real return of 0.3% over the 2002-2019 period, but is also unrealistic to expect, given the long-term capital market expectations⁹⁹.

Thus, contributing to an UPF over 40 years will reduce pension savers' retirement income in comparison with the state pension they would have been entitled to, had they not participated in an UPF at all. By producing returns below the growth rate of the average insurable income in Bulgaria, universal pension funds harm pension savers by reducing the adequacy of their pensions and preventing them from maintaining their living standards after retirement. While the legislator created an opportunity to opt-out of UPFs at any time up to five years before reaching the statutory retirement age, contributing to an UPF remains the default option for those, who enter the labour market for the first time.

Conclusion

Pension savings real returns are of crucial importance for the accumulation of capital¹⁰⁰ and, hence, for the size and adequacy of pensions to be expected from defined contribution schemes. Yet, pension savings money-weighted real returns are neither calculated nor published in Bulgaria. This report is the only source, documenting the real pension savings returns across pension vehicles, available in Bulgaria, for the 2002-2019 period.

With the pay-as-you-go pension pillar in Bulgaria under financial stress and the universal pension funds being the default option for employees born after 1959, the defined contribution pillars are growing in importance in securing adequate pensions for future retirees. However, as the analysis of the real return of pension funds from 2002 to 2019 illustrates, with very low real returns in universal pension funds and no real returns in voluntary pension funds, the task of providing Bulgarians with adequate pensions and old age security is proving beyond reach.

Pension fund charges in Bulgaria are limited in number, capped by law and transparent. They have proved, however, too high a hurdle for fund managers across all pension vehicles to overcome and deliver market-like long-term returns.

Bulgarians can choose whether to contribute to universal pension funds but if they do, they don't have a choice as to how their savings are to be managed. Their contributions are invested irrespective of their individual time horizon and risk tolerance, which indicates that perhaps a majority of the Bulgarians invest their pension savings in unsuitable portfolios.

Universal pension funds – by far the largest pension vehicle by number of participants and assets under management – is detrimental to pension savers interests as it cannot generate the returns needed to

⁹⁸ Christoff, Lubomir. (2019). "Pension (In)Adequacy in Bulgaria". (In Bulgarian). Available at SSRN: https://srn.com/abstract=3354170

⁹⁹ Dobbs Richard, Tim Koller, Susan Lund, Sree Ramaswamy, Jon Harris, Mekala Krishnan and Duncan Kauffman. (2016). "DIMINISHING RETURNS: WHY INVESTORS MAY NEED TO LOWER THEIR EXPECTATIONS", McKinsey & Company, p. IX <u>https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/why-investors-may-need-to-lower-their-sights</u>

¹⁰⁰ Assuming a given size and length of contributions.



ensure a supplemental pension and on the contrary, will reduce the pension income of future retirees as two pensions in Bulgaria are less than one.

Policy Recommendations:

The analysis above substantiates the conclusion that the partial privatization of the state Social Security system has failed in Bulgaria as elsewhere¹⁰¹. Besides, the legislation governing private pension funds is primitive, and not in line with generally accepted practices of managing other people's money. We, therefore, suggest two steps to reform the Bulgarian pension system if it is to serve pension savers' interests.

Step 1: Reverse the 2000 pension privatization completely by:

- a) directing the entire mandatory contribution for all to the State pension fund from a future date (e.g. 1 January 2022).
- b) giving participants in universal pension funds the option to transfer their accounts to the Government fund for stabilization of the pension system. This option should be limited to a reasonable period of time, such as 18 or 24 months. Those who transfer their UPF accounts avoid the reduction of their state pension entitlement.
- c) Merging the remaining universal pension fund accounts into the voluntary pension funds.

This step will ensure that no state pension will be reduced and everyone, contributing to a pension fund will receive a supplementary pension, funded by truly supplementary contributions over and above the mandatory pension contribution.

Step 2: Upgrade the private pension funds regulation in Bulgaria and bring it up to the best practices in the asset management area as follows¹⁰²:

- a) <u>Benchmarks</u> Require pension funds to announce in advance a benchmark, according to which the portfolio will be managed and to report the one-, 3-, 7-, and 10-year historical performance against this benchmark. This will facilitate pension savers' choice of pension funds.
- b) <u>Suitability</u> Require pension companies to offer multiple investment options with different risk and expected return characteristics and, ideally, target-date portfolios with pre-announced gliding paths as a default option. Pension companies need to assess the suitability of the portfolios for each individual client along the lines the MiFID II requirements.
- c) <u>Competition</u> Break the oligopoly of pension companies in Bulgaria. Every firm, licensed to manage assets and duly supervised, such as banks, insurance companies, asset management companies etc., should be allowed to manage clients' "pension accounts" in compliance with the Social Insurance Code. The notion of a "pension fund" should be abolished and replaced by a "pension account". It is hoped that competition will reduce fees and charges more effectively than legal caps.

¹⁰¹ Ortiz, I. et. al. (eds.). (2018). Reversing Pension Privatizations: Rebuilding public pension systems in Eastern Europe and Latin America / International Labour Office – Geneva: ILO. <u>https://bit.ly/2UvRhYA</u>

¹⁰² For details, see Christoff, Lubomir. (2017). "Embedded Flaws of the Bulgarian Pension Funds or the Code Against the Insured" (In Bulgarian - March 10, 2017). Available at SSRN: <u>https://ssrn.com/abstract=2924003</u>



- d) <u>Competency</u> Subject pension insurance intermediaries (salespeople) to relevant and proportional knowledge and competency requirements, modeled after those MiFID II imposes on investment advisors.
- e) <u>Annuities</u> Incentivize insurance companies to offer annuity products. Give pension savers, approaching retirement, the option to purchase an annuity from any licensed provider and not be tied to the company, where they held their pension account during the accumulation phase.

Only by introducing competition in the pensions sector and imposing suitability requirements on pension account providers, can the average Bulgarian hope that his or her interests will be adequately served.



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The European Federation of Investors and Financial Services Users Rue d'Arenberg 44 1000 Brussels Belgium info@betterfinance.eu

Coordinators

Aleksandra Mączyńska Ján Šebo Ştefan Dragoş Voicu

Contributors

Edoardo Carlucci	Arnaud Houdmont
Lubomir Christoff	Matis Joab
Lars Christensen	Michal Mešťan
Michaël Deinema	Gregoire Naacke
Laetitia Gabaut	Dayana Nacheva
Yordanka Popova	Carlos Nava
Lisbeth Grænge-Hansen	Guillaume Prache
Johannes Hagen	Joanna Rutecka-Góra
José Antonio Herce	Dr. Thomas Url

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